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EMSA approved Pediatric CPR & First Aid
State of California Certification 11-0506-DC

CPR (Infant, Child, Adult) with AED and First Aid

Student Work Book

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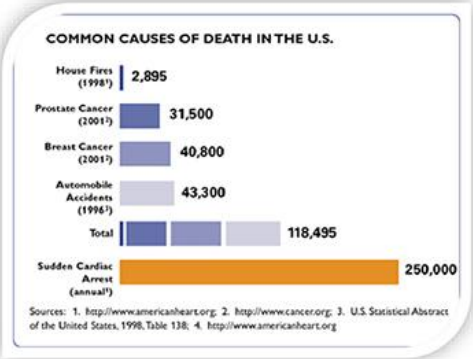
SCA and Early Defibrillation

Sudden cardiac arrest (SCA) is one of the leading causes of death among adults in North America. It can occur randomly, to anyone, at any time.



SCA occur when the heart's electrical system mal functions and the heart's natural electrical signals become disorganized. The coordinated mechanical construction of the heart muscle is lost and a chaotic quivering condition known as ventricular fibrillation occurs. The heart abruptly stops pumping blood and oxygen to the body.

The human body requires a constant supply of oxygen in order to stay alive. Brain tissue is especially sensitive to lack of oxygen. When oxygen is cut off, brain death can occur quickly, within a matter of minutes.

The lack of available oxygen to the brain causes the victim to quickly lose consciousness, stop breathing, and collapse.

Unless immediate care is provided to restore the heart's rhythm, the chance to survive is lost.

Cardiopulmonary resuscitation, or CPR, allows a trained bystander to immediately begin restoring some circulation oxygen to the brain through a combination of external chest compression and rescue breaths.

By itself, CPR is only a stop –gap measure that can buy critical time in which to provide more specific treatments to re – establish a normal heart rhythm.

The most effective treatment to end ventricular fibrillation and restore a normal heart rhythm is defibrillation. An electrical shock sent through the heart muscle.

The sooner defibrillation can be provided, the greater a chance that a victim can survive

An automated external defibrillator, also called an AED, is a small portable computerized device that is designed to allow lay bystanders to defibrillate.

Attached with wires and adhesive pads to the chest of a sudden cardiac arrest victim, THE AED checks the heart's electrical activity, decides if ventricular fibrillation is present and allows for a defibrillation shock to be delivered.

If defibrillation can be delivered promptly by a bystander, many more victims could survive.

Respiratory System

Because the body cannot store oxygen it must continually supply itself through the actions of the respiratory and circulatory systems.

The respiratory system brings air, containing oxygen, into the body, and removes carbon dioxide a waste product created by the body's use of oxygen.

When you take a breath, muscles in the chest contract, and create a vacuum that draws air through the windpipe, and into the lungs.

In the lungs, oxygen from the air is absorbed into the bloodstream and circulated throughout the body carbon dioxide is transferred from the bloodstream back into the lungs.

Chest muscles relax and air is exhaled out of the lungs and back into the environment. Carbon dioxide is released in the exhaled air,

Not all of the oxygen is used by the body in the breathing process, inhaled contains approximately 21% oxygen exhaled air contains about 16-17% oxygen. When delivered through rescue breaths, there is still enough oxygen to support life.

Circulation System

The circulatory system uses the blood stream to deliver oxygen and nutrients to body tissues and remove waste products

The driving force of the circulatory system is the heart.

Special tissue runs throughout the heart that is capable of creating and conducting electric current. These electric current triggers the rhythmic mechanical contractions that create the flow of bleed through the body.

Large vessels called arteries carry oxygenated blood from the heart to body tissues. Veins return used blood back to the heart where carbon dioxide is released and fresh oxygen is picked up. The fresh blood is returned to the heart and the cycle repeats

If the heart stops, it is possible to return at least some of the blood flow through the circulatory system by external compression of the chest cavity. Increased pressure in the chest and direct compression of the heart causes blood to move out of the chest and heart and into the rest of the body

CPR, the combination of rescue breaths and external chest compressions, has proven to be capable of providing oxygenated blood flow to vital organs during cardiac arrest.

Immediate CPR by a bystander could double or triple a victim's chance of survival.

Infection Diseases

Blood borne pathogens are viruses or bacteria that are carried in blood and can cause disease in people there are many different blood borne pathogens, but hepatitis B (HBV), Hepatitis C (HCV), and the human immunodeficiency Virus (HIV), are the ones most commonly addressed. This estimated risk for acquiring HIV,HBV, OR HCV infection during basic life support is extremely low, about one in one million. There have been no reports of infection acquired during CPR training.

"Universal Precautions" is a way to limit the spread of blood borne diseases by preventing contact with blood and certain body fluids.

To "observe universal precautions" means that whether or not you think the victim's blood or body fluid is infected you act as if it is.

Barrier Devices

Simple infection – control measures, including the use of barrier devices, can reduce the risk of an infectious disease during CPR or CPR training

Disposable Gloves

A simple but effective barrier for skin –to – skin contract is the use of disposable gloves.

Make sure there is always a fresh supply of gloves in your first aid kit. If you find yourself in a first aid situation and you don't have any standard barrier (gloves) to help avoid direct contract with blood or body fluids use plastic garbage can liners or plastic bags anything that will help keep fluids off of you.

Never wash or reuse disposable gloves. Throw away both gloves in an appropriate container

Even after using gloves, uses an alcohol-based hand rub, or soap and water, to clean your hands and other exposed skin.

Ventilation and Shields

Masks and face allow you to rescue breaths direct skin to

They come with replaceable one- and /or filter to contaminated first and kits at least one breathing mask shield.

Mask

shields provide without skin contact

a way valve block fluids. All should have rescue or face

Eye Protection

Any time there is a risk of spraying or splatter of blood or body fluids, you should use goggle or safety glasses with side protection to help protect your eyes.

Decontaminating surfaces equipment and other contaminated objects as soon as possible. Use a bleach solution to sanitize the surface with two tea spoons of bleach to a quarter of water. The bleach & water solution is only effective for 24 hours and should be mixed fresh daily. Surface spray on the solution and leave it in place for at least two minutes before wiping.

To reduce the risk of infection you should:

- **Always wear barrier devices in first aid situations.**
- **Carefully remove gloves, clothing or any other contaminated material place them in appropriately labeled bags or containers.**
- **Use an alcohol-based hand rub only if there is no soap and water to clean your hands and other exposed skin after providing first aid**

Skill Practice # 1 Gloves	
1	• Without touching the bare skin, grasp either palm with the fingers of the opposite hand.
2	• Gently pull the glove away from the palm and toward the fingers, remove the glove inside out. Hold on to the glove removed with the fingers of the opposite hand.
3	• Without touching the outside of the contaminated glove, carefully slide the ungloved index finger inside the wrist band of the gloved hand
4	• Gently pulling outwards and down toward the fingers, removing the glove inside out.
5	• Throw away both gloves in an appropriate container • Wash your hands and other exposed skin thoroughly with a soap and warm water. If soap and water are not available, use an alcohol- based hand rub.

Section -2 – Cardiovascular Disease

Cardiovascular Disease

Cardiovascular disease directly affects the heart and the large vessels of the circulatory system. The term generally reflects a progressive deterioration of the tissue involved.

The most common problems associated with cardio vascular disease are stroke and acute coronary syndromes. They are the leading causes of death for both men and women in the united stated, and account for nearly 40% of all deaths

Prevention

You can lower your risk for cardiovascular disease by making healthy lifestyle choices.

- Eat a healthy diet to prevent or reduce high blood pressure and high blood cholesterol
- Maintain a healthy weight
- Control your alcohol intake
- Don't smoke

- Exercise as directed by your doctor

Stroke (Brain Attack)

A stoke occurs when the blood supply to part of the brain is suddenly interrupted, or when a blood vessel in the brain bursts and spills blood in to the surrounding tissue. A stroke can result in serious issues with a victim's ability to fell, move, or communicate; Damage can be limited by early bystander recognition and prompt professional medical treatment.

Sign and symptoms

May occur suddenly

- Numbness or weakness on one side of the body.
- Trouble speaking or understanding.
- Trouble seeing in one or both eyes.
- Loss of balance or co-ordination,
- Severe headache

First Aid

If you suspect a stroke may be occurring, ask the victim to:

F.A.S.T.

F- Face droop

A-Arm Drift

S-Speech difficulty

T-Time activate EMS

If the victim has trouble with these tasks:

- Alert EMS Immediately
- Position the Victim comfortably
- Comfort calm and reassure victim
- Use emergency oxygen if it is available and you are trained to use it. This is not recommended for Child Care Center or staff.

Acute Coronary Syndrome (Heart Attack)

The term, acute coronary syndromes, applies to a number of serious conditions involving the heart; these include unstable chest pain, or angina and myocardial infarction, known to most as a heart attack

Heart Attack

A heart attack occurs when oxygenated blood flow to part of the heart is severely diminished or cut off. If not resolved, heart tissue will die and could result in a serious disability or sudden cardiac arrest.

Signs and symptoms

Signs and symptoms can vary in intensity. Suspect a heart attack if the following conditions appear:

- Chest pain or a dull discomfort behind the breastbone that may spread to the arms, back, neck, jaw, or upper abdomen
- Shortness breath,
- Weakness, nausea or dizziness.
- Pale skin with heavy sweating.
- Anxiety, feeling like something bad a going to happen but not sure what
- Uncertainty and embarrassment.
- Denial that something serious is occurring this can delay treatment and increase the risk of death

First Aid

If you suspect a heart attack may be occurring. Do the following things:

- Alert EMS immediately
- Have the victim sit down and rest quietly.
- Loosen any tight clothing
- Help victim take existing heart medication usually this is nitroglycerin, placed or sprayed under the tongue
- Follow EMS operator instruction to give victim aspirin while awaiting the arrival of EMS
- Use emergency oxygen if it is available and you are trained to use it

Everyone should know the sign and symptoms of heart attack and stroke and the importance of quickly calling EMS. Early professional treatment can prevent more serious complication from occurring.

Unfortunately, almost half of stroke and heart attack victim die before EMS personal arrive

Sudden Cardiac Arrest

Sudden cardiac arrest is an emergency that occurs abruptly and without warning without early recognition and treatment most likely from a bystander a victim will not survive.

Signs and Symptoms

Suspect a sudden cardiac arrest has occurred if someone:

- Collapses without warning
- Is unresponsive to voice and touch.
- Appears to not be breathing or is making shallow ineffective attempts to breath
- Looks dead.

First Aid

If you suspect a sudden cardiac arrest has occurred:

- Immediately alert EMS
- Perform CPR.
- Defibrillate as soon as possible with an AED

Chain of survival

Adults

The chain of survival is a concept that is used to communicate the key factors that must be in place to increase survival from sudden cardiac arrest.

The links in the chain of survival include:

- Early recognition and activation of EMS
- Early CPR.

- Early defibrillation with an AED
- Effective **Advanced life support**
- Integrated **post–cardiac arrest care**

Early Activation

When a sudden cardiac arrest is suspected, the chain of survival begins with rapid activation of EMS or an Emergency action plan.

Early activation may include assistance by an emergency operator, specially trained to provide CPR instruction over the phone.

Early CPR

Early CPR will buy some time for accessing an Automated External defibrillator (AED) and improve the chance that defibrillation will work.

Early Defibrillation

Early defibrillation can return the heart to a normal rhythm, survival rates are highest when CPR is started immediately and defibrillation occurs within three to five minutes.

Early advanced Life Support (ALS)

Advanced life support involves medical procedures and medications used by paramedics, nurses, or doctors to help protect survival and recovery.

If any one of these links is weak or missing, the victim is unlikely to survive. When the links are strong, the greatest chance for survival occurs.

Children

A child's heart does not usually stop suddenly, as is most often the case in adults, typically, a child's breathing will be lost first, by a condition such as drowning or choking, in these cases, the heart slow over an extended time and then stops from the lack of oxygen in the blood

Rapid treatment by a bystander should include CPR with a particular emphasis on establishing an open-air passage to the lungs and providing rescue breaths that create a visible rise of the chest, early intervention could reverse the effect of a weakening heart.

- The chain of survival in children emphasizes prevention, basic CPR, early identification of an emergency with rapid activation of an emergency action plan including EMS, early pediatric advanced life support, and integrated post–cardiac arrest care.

Prevention

Injury is a leading killer of children aged 14 and under worldwide, most injuries can be prevented by taking simple safely measures.

Death rates for drowning are highest in children less than five years old, safety equipment, such as pool fencing significantly reduces the risk of drowning.

Placing infants on their backs to sleep and giving them a pacifier and placing a fan in the room of the sleeping infant significantly reduce the risk of sudden infant death syndrome.

Early CPR

When a child is found unresponsive and not breathing performing CPR is the priority care. Have another bystander alert EMS. Immediate CPR, with effective rescue breaths, has shown to significantly increase survival for infants and children.

Early Activation

When a rescuer is alone, the rescuer should give two minutes of CPR before alerting EMS and getting an AED. Falling to do so may allow a slowly beating heart to degrade to the point that any treatment becomes futile

Early Pediatric Advanced Life Support (PALS)

As with an adult, prompt professional treatment will help protect survival and recovery, and Integrated **post–cardiac arrest care**

Section 3 – Basic CPR Skill

Basic CPR Skills

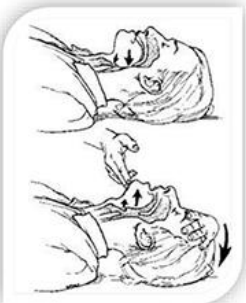
Airway

The airway is the passageway between the mouth and lungs. It must be open so air can enter and leave the lungs freely.

Blockage of the airway is most commonly caused by the relaxation of the tongue when a victim becomes unresponsive.

- Tilting the head and lifting the chin will pull the tongue away from the back of the throat and open the airway.
- Don't press too hard on the soft area under the chin. Doing so can block the airway. Also, don't push the mouth completely closed.

Recovery Position



Placing an unresponsive person on his side in a recovery position will help protect the airway from becoming blocked by the tongue, vomit, or secretions.

Use the recovery position only if the victim is uninjured and breathing normally

Make sure the victim's body position is stable so they do not roll onto their face or back. Make sure there is no pressure on the chest that could make it harder to breath. Because blood flow in the lower arm may be impaired, turn the victim to the opposite side if they are in the recovery position for more than 30 minutes.

As a rule, you should not move an injured victim unless you determine you absolutely have to.

When you must place an injured person on his or her side, use recovery position.

Rescue Breaths

Rescue breaths use your own exhaled air to force oxygen into the lungs of a person who has stopped breathing.

It is recommended to use a barrier device such as a ventilation mask or face shield to perform rescue breaths for victims of all ages. Even though, the risk of getting exposed to a disease is extremely low, using a barrier device will lower this risk even further.

Rescue Breaths with a Face Shield

- Place the face shield as designed over the victim's mouth and nose.
- Tilt the Victim's head and lift the chin.
- Pinch the Victim's nose either under or over the shield.
- Take a normal breath, open your mouth wide and place your mouth on the face shield around the victim's mouth
- Press down to create an air tight seal. And blow through the port on the shield; make the chest visibly rise, but no more than that.
- Remove your mouth from the shield with each recue breath and allow the victim to exhale

If the victim is an infant, place your mouth ever the infant's mouth and nose

Rescue Breaths with a Mask

- Place the mask over the victim's mouth and nose
- Tilt the victim's head and lift the chin into the mask to create an air tight seal.
- Take a normal breath and place your mouth around the one-way valve on the mask
- Blow through the valve and make the chest visibly rise, but no more than that.
- Remove your mouth from the valve with each rescue breath and allow the victim to exhale

Taking deep breaths

Do not take deep breaths when providing rescue breaths. Taking deep breaths is unnecessary and may cause you to hyperventilate, if you feel breathless, or become dizzy; you are breathing too fast and deep slow down or have another person take over for you.

Air in stomach

Air can be forced into the stomach instead of the lungs when giving rescue breaths. This can reduce the effectiveness of the breaths and may cause a victim to vomit. To prevent this, give each breath in one second and give only enough air to see a visible chest rise, but no more than that. Allow the victim to exhale completely between breaths.

If a victim does vomit, turn them on their side quickly to drain the vomit, clean out the mouth with a gloved finger, and return to the indicated care as soon as you are able.

Mouth-to Mouth Rescue Breath

Depending on your relationship to a victim and the availability of a barrier device, you may elect to provide mouth to mouth rescue breaths using the same technique as with a face shield.

Mouth-to Nose Rescue Breathing

Mouth-to-nose rescue breaths may be useful if a rescuer has difficulty with mouth-to-mouth. Tilt the victim's head back with one hand and use the other hand to lift the chin and close the victim's mouth seal your lips around the victim's nose and blow

External Chest Compressions

External chest compressions create forward blood flow in the body by applying a rhythmic application of pressure over the lower half of the breastbone.

- The victim must be face - up and lying flat on a firm surface.
- Place the heel of one hand in the center of the chest between the nipples. Put the other hand on top of the first

- Your fingers can be straight or fasted together but should be kept off the chest.
- Position your body so your shoulders are directly over your hand.
- Straighten your arms and lock your elbows use your upper body weight to help compress the chest
- Push straight down on the chest **HARD** at least two inches or four to five centimeters.
- Release the pressure and completely remove your weight at the top of the compression without pausing, continue compression **FAST** at a speed of at least 100 per minute but no more than 120 per minute.

Do not push over the lowest portion of the breastbone. Keep up the force and speed of compressions to help create the best blood flow possible.

To maximize internal blood flow, chest compressions need to be performed hard and fast. Allow the chest to fully recoil at the top of each compression and minimize any interruptions to compressions.

As an alternative technique, rescuers who have difficulty can hold the wrist of the hand on the chest with the other hard and push down with both hands to proper compression depth. You may hear a sound like knuckles cracking and feel your hands fail in a bit this is caused by cartilage or ribs cracking and is not serious forceful external chest compression is critical if the victim is to survive.

The compression technique for child takes into account the size of the child.

- Depending on the size of the child you can use either 1 or 2 hands to compress the chest
- Hand placement is on the center of the chest between the nipples.
- Using upper body weight, compress about two inches in depth of the chest
- At a rate of at least 100 compressions per minute but no more than 120 per minute.
- After each compression, completely release the pressure on the breastbone

The compression technique for infant takes into account the small size of the infant

- Place the infant on a firm, flat surface
- Push the center of the chest with two fingertips placed just below the nipple line
- Press down on the breastbone about 1 ½ inches in depth of the infant's chest
- Give chest compressions at a speed of at least 100 per minute but no more than 120 per minute
- After each compression, completely release the pressure on the breastbone.

Skill Practice # 2

Look for response and normal breathing

1	• Tap and shout for any response
2	• Look at the chest for normal breathing
3	No response and or normal breathing send someone to call for help, and get AED & First Aid Kit and start CPR

Skill Practice # 3

External chest compressions

Adult

1

- Place the heel of one hand in the center of the chest between the nipples; put the other hand on top of the first. Your fingers can be straight or fastened together but should be kept off the chest.

2

- Position your body so your shoulders are directly over your hands. Straighten your arms and lock your elbows. Use your body weight to help compress the chest

3

- Push straight down on the chest at least two inches or four to five centimeters release the pressures and completely remove your weight at the top of the compression, without pausing. Continue compressions at a speed of at least 100 per minutes but no more than 120 per minute.

4

- Do not push over the lowest portion of the breastbone. Keep up the force and speed of compressions to help create the best blood flow possible

1

Children

- Depending on your size in comparison to the child you can use either 1 or 2 hands to compress.

2

- Hand placement is on the center of the chest between the nipples

3

- Using upper body weight, compress about two inches in depth of the chest at a rate of at least 100 compressions per minute but no more than 120 per minute.

4

- Completely release the pressure on the chest at the top of each compression.

Infants

1	 • Push the center of the chest with two fingertips placed just below the nipple line
2	• Press down on the breastbone about 1 ½ inches in depth of the infant's chest
3	• After each compression, completely release the pressure on the breastbone.
4	• Give chest compressions at a speed of at least 100 per minute but no more than 120 per minute.

Skill Practice # 4

Opening the Airway

1	• Blockage of the airway is most commonly caused by the relaxation of the tongue when a victim becomes unresponsive
2	• Tilting the head and lifting the chin will pull the tongue away from the back of the throat and open the air way
4	• Don't push the mouth completely closed.

Skill Practice # 5

Rescue Breaths

1

Using a face shield

Infant

- Place the face shield over victim's mouth and nose

Adult /Child

- Place your mouth over the victim's mouth, pinching the nose closed and blowing just enough air to see the chest rise.

2

- Take a normal breath: open your mouth wide, and place your mouth on the face shield around the victim's mouth
- Press down to create an air tight seal, and blow through the opening on the shield
- Make the chest visibly rise but no more than that
- Remove your mouth from the shield with each rescue breath and allow the victim to exhale

3

- Make sure the head is tilted back opening the airway

1

Using a Mask

- Place the mask over the victim' s mouth and nose
- Tilt the victim's head and lift the chin into the mask to create an air right seal

2

- Take a normal breath and place your mouth around the one –way valve on the mask.
- Blow through the valve and make the chest visibly rise, but no more than that.
- Remove your mouth from the value with each rescue breath and allow the victim to exhale

Section 4 – Emergency Action Steps

Assess, Alert, & Attend

Concerning age, victims will differ in size from infancy, through adolescence, to adulthood in order to simplify training, CPR guidelines use the following age ranges

Adult – about 8 years of age and older or has reached puberty

Child – about 1 to puberty

Infant – less than about 1 year of age

Determining age can be very difficult. Your best guess is okay.

The emergency action steps are intended to help the rescuer respond to an emergency and manage life threatening problems of the airway breathing and circulation.

Whenever you recognize an emergency, you should assess the scene for safely. If the scene is not safe, or at any time becomes unsafe, GET OUT!

If the scene is safe pause for a moment as you approach the victim, what is your first impression? Is the victim lying still around? Does skin color appear normal for the victim's ethnic group? Does it look difficult for the victim to breath? Normal breathing is quiet and easy, sign that CPR may be needed include.

- Victim is not moving.
- Bluish or ashen tissue color, especially around the lips.
- Breathing is Shallow, gasping or absent.

Kneel next to the victim. Gently tap or squeeze the victim's shoulder and ask, "Are you all right?" Use the victim's name if you know it.

With an infant, you may tap the foot.

Alert

If the victim is unresponsive, have another bystander alert EMS or active your emergency action plan.

Adult (about 8 years of age and older or has reached puberty) If you are alone with an unresponsive adult, immediately alert EMS yourself. Get an AED and quickly return to the victim.

Children and infants (less than about 8 years of age and has not reached puberty)

When alone with an unresponsive child or infant, shout out for help. Stay with the child and, if indicated, provide about two minutes of CPR before leaving to call for EMS. If the victim is an infant, if may be possible to carry the infant to a telephone, as necessary, while beginning the steps of CPR.

Be prepared to follow directions. Many dispatchers today are trained to provide instruction in CPR.

Attend

To properly attend to the victim, he or she must be face up, on a firm, flat surface. If the victim is lying face down, roll him or her over; minimize turning or twisting of the head and neck. The airway is the passageway between the month and lungs. The airway must be open so air can enter and leave the lungs freely.

Blockage of the airway is commonly caused by the tongue. Tilt the head and lift the chin to open the airway. While keeling the airway open, lean close to the victim's face and look for chest movement. Listen for air leaving the mouth and nose, and feel for air blowing on your cheek. Check for least 5 seconds, but no more than 10

If the adult victim is breathing normally, or starts breathing normally at any time, place them on their side in a recovery position.

If may be difficult to determine whether an adult victim is breathing normally or not, normal breathing is effortless quiet, and regular, occasional gasps are not normal and are not capable of supplying the victim with enough oxygen to sustain life.

With children simply look for the presence or absence of breathing.

If you are not positive that the victim is breathing or breathing normally start CPR with 30 chest compressions.

Use your personal protective equipment.

Open the airway and then provide 2 rescue breaths.

After the delivery of two rescue breaths, immediately begin external chest compressions.

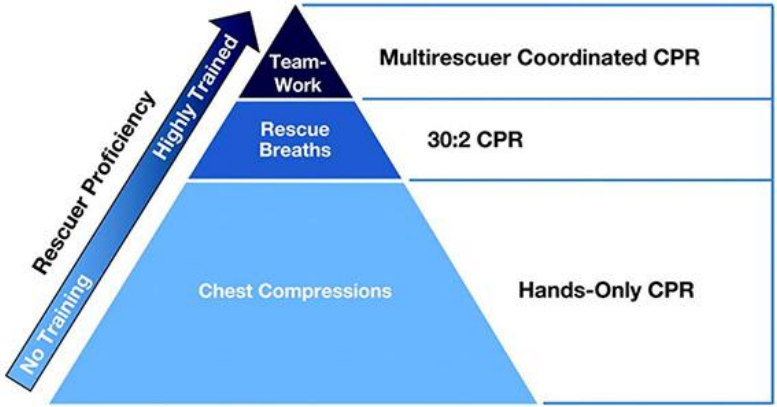
Give 30 chest compressions at a speed of at least 100 per minute. Keeping up the force, length and speed of compressions helps create the best blood flow possible

After 30 compressions, open the victim's airway and give two rescue breaths that make the chest visible rise.

Return quickly to the chest and give compressions provide continuous cycles of 30 compressions and 2 rescue breaths.

When another trained rescuer is available, it makes sense to take turns performing CPR. Switch at least every 5 cycles or every two minutes.

Taking turns will help to prevent fatigue and maintain the quality of chest compressions. Switch quickly, in less than 5 seconds, so there is as little interruption in compression as possible



Compression – only CPR

For bystander treatment of witnessed adult sudden cardiac arrest, the use of compression- only CPR is an alternative to conventional CPR, which combines compression and ventilations.

By eliminating the need to ventilate compression only CPR has shown to be more likely than conventional CPR to reduce by stander apprehension about performance or disease and increase the likelihood that CPR will be attempted. If an adult suddenly collapses and is found to be unresponsive and not breathing normally, immediately begin continuous external chest compressions. Continue a compression until another rescuer takes over an AED is available for use, the victim shows sign of life, or EMS providers tell you to stop.

Defibrillation

If there is an AED in your workplace or community, you should become very familiar with it so you and other rescuers can operate it in an emergency.

AEDs are very easy to use. With minimal training any one can use an AED properly and safely

There are many different brands of AEDs but the same basic steps apply to all of them. If the victim is unresponsive and not breathing:

- Turn on the AED to start the voice prompts.
- Adhere the AED pads to the victim's bare chest.
- Allow the AED to automatically analyze the heart rhythm.
- Deliver a shock if directed to by the AED

The effectiveness of defibrillation diminishes quickly with time use an AED quickly when it arrives. Place it next to the victim's head and turn it on voice prompts will guide you on how to operate the AED.

Expose the chest by tearing or cutting the shirt. Remove the defibrillation pads from their packaging. Look at the pictures on the pads to see exactly how

Remove the self-adhesive backing and attach the electrodes to the victim's bare chest. Make sure the electrode attaches firmly to the skin.

The AED will automatically begin to analyze a victim's heart rhythm when the electrodes are fully attached ensure nobody touches the victim during analysis

If shock is indicated the AED will charge automatically and advise you to defibrillate. Look to make sure no one including you, is touching the victim. Warn everyone out loud to stay "clear" of the victim. Push the shock button on the AED to deliver the shock.

Immediately resume CPR using continuous cycles of 30 compressions and 2 rescue breaths. Follow the instruction given by the AED. The AED will prompt you to stop CPR every few minutes so if can reanalyze the heart. Stop CPR if the victim becomes responsive.

Children

Attach AED as soon as it is available. An AED may have special pads or a key to deliver a lower, child-sized amount of electricity. If a child specific AED is not available, it is Okay to use an AED set up for an adult -place one adult in the center of the child's chest and one in the center of the child's back.

Troubleshooting

Troubleshooting prompts from the AED can help guide you through some common problems with its use. Stay calm and do what the AED tells you to do

Hair on the chest may present the electrode pads from making effective contract. If a voice prompt indicates a pad problem, press the pads firmly against the chest if the prompt continues, quickly remove the pads tearing out the hair, and apply a second set of pads. If the problem continues, quickly shave the hair off of the chest underneath and attach another set of pads.

Moisture on the victim's chest can reduce the ability of the pads to adhere. If the victim's chest is sweaty or wet, quickly dry if before attaching the pads, move a victim out of standing water before attaching the pads

If a message indicating motion occurs, make sure CPR has been stopped and the cables are not being moved

If a message regarding the battery is displayed, the battery is probably low, if the AED will not charge to deliver a shock change the battery.

AED Pads have an expiration date – check them regularly.

Other consideration

Remove medication patches and wipe the skin clean before attaching pads. Medication patches may block the shock and can cause burns to the skin.

A noticeable scar and lump on the chest may indicate an underlying implanted medical device such as a pacemaker or defibrillator; place the edge of the pads at least 1 inch or 2.5 centimeters away from any implanted device.

AEDs can be used safely on metal surfaces as long as the electrode pads do not come into contact with the metal.

Do not use AED in the water, move victim out of the water to a dry area as fast as possible.

Special CPR Considerations

Info

Pregnancy – Chest compression may not be effective when a woman who is 6 months pregnant or more is lying flat on her back. This is because the baby puts pressure on a major vain that returns blood to the heart. If possible, prop up the woman slightly on her left side using a rolled blanket (or similar) when performing chest compressions. This will reduce the pressure and provides the most blood flow to mother and baby perform chest compressions higher on the breastbone, slightly above the center.

Hypothermia – Get inside or out of the wind, prevent additional heat loss by removing wet clothes and insulating the victim from further exposure. If the body is frozen solid, the nose and mouth are blocked with ice, and chest compression is impossible, do not start CPR when defibrillating, if the victim does not respond to one shock, focus on continuing CPR and re warming the victim.

SUBMERSION/ Near – Drowning – Because the Scene may be unsafe (Waves, Currents, Cold Water, Bad Weather), proper training in the use of personal lifesaving equipment, such as torpedo buoys and personal flotation devices, is critical for a safe rescue if available, get the victim into a boat or other vessel. If no boat is available, get the victim to shore start CPR when indicated, as soon as it is safe to do so

Expect vomiting. When it occurs, turn the victim's mouth to the side and remove the vomit with a gloved finger sweep or cloth. If a head, neck or back injury is suspected, roll the victim like Log. Minimize movement avoid twisting the head neck back. Do not attempt to drain water from the lungs using abdominal thrusts. They are unnecessary and potentially dangerous move victim out of freestanding water and dry chest before attaching AED

Electric Shock – consider any fallen or broken wire as dangerous. Do not touch (for allow your clothing to touching) a wire, victim or vehicle that could be energized. Do not approach within 8 feet of it. Notify the local utility and have trained personnel sent to the scene. Metal or cable guard- rails. Steel wire fences and telephone lines may be energized by a fallen wire and may carry the current a mile or more from the point of contact never attempt to handle wires yourself unless you are properly trained and equipped.

Start CPR if indicated, as soon as it is safe to do so. Lightning Strike - when multiple victims are struck by lightning at the same time, give the highest priority to those without signs of life. Start CPR if indicated, as soon as is safe to do so because many victims are young, they have a good chance for survival if Immediate CPR is given. Remove smoldering clothing, shoes and belt to prevent burn.

Cardiac Arrest and injury – Be sure to clear mouth of blood, vomit, and other secretions, it is unlikely for someone who is in cardiac arrest caused by a serious injury to survive.

Info

Universal CPR and AED Procedures

Asses the scene

- **If it if not safe, or at any time becomes unsafe GET OUT**
- **Observe Universal precautions (Use Personal Protective equipment)**
- **If victim not moving and unresponsive.**

Alert EMS

Alert EMS or active Your Emergency action plan. Have someone get an AED and emergency xygen if they are available

Attend to the victim if not breathing properly start CPR

C = Compression

- **Give 30 chest compressions at the speed of at least 100 per minutes but no more than 120 per minute.**
- **Provide continuous cycles of 30 compressions and 2 rescue breaths until an AED arrives, EMS arrives, or victim shows signs of life.**

A = Airway – open Airway

- **If unresponsive tilt head – lift chin.**

B = Breathing - check breathing

- **Look for breathing or gasping for at least 5 seconds but no more than 10**

-Unresponsive, not breathing – Give 2 breaths that make chest visibly rise but no more than that

D = Defibrillation - Adult or Child

- **Turn on AED and attach to the victim's bare chest**
- **Follow voice prompt.**

Skill Practice # 6

Adult CPR/ AED
PERFORM THESE STEPS QUICKLY

Emergency action

- *Assess scene. If the scene is unsafe of at any time becomes unsafe GET OUT*
- *Assess Victim Tap shoulder shout name not moving? No response?*
- *Alert have someone alert EMS, if alone, do this yourself, if necessary, use your cell phone and put on speaker*
- *Attend to the CABs*

C

Circulation: perform chest compressions

- Place heels of hands in middle of chest between nipples.
- Push hard and Fast at least (100x per no more than 120 per) 2 inches deep
- Allow chest to recoil completely minimize interruption.
- Provide continuous cycles of 30 compressions and 2 rescue breaths until an AED arrives EMS arrives or victim shows signs of life

A

Airway. Open Airway

- Till the head, lift the chin

B

Breathing: check Breathing

- Look for breathing for 5 but no more than 10 seconds
- Occasional gasps are not capable of supplying enough oxygen to support life.
- If the victim is not breathing, give 2 breaths that make chest visibly rise, but no more than that.

D

Defibrillation: Use an AED if Available

- Turn on AED, listen to and follow voice prompts.
- Using child system, attach pads to child's bare chest and allow AED is analyze heart rhythm.
- If shock advised CLEAR child and deliver shock
- Immediately resume CPR, listen to and follow AED voice Prompts.

Skill Practice # 7

Child CPR / AED -PERFORM THESE STEPS QUICKLY

Emergency Action Steps

- Assess scene. If scene is not safe or at any time becomes unsafe. GET OUT!
- Assess child. Tap shoulder shout name not moving? no response
- Alert. Have someone alert EMS, and get an AED. If you are alone and you have a cell phone call EMS and put on speaker. If alone, without a cell phone, provides two minutes of care and then call EMS,
- Attend to the CAB

C

Circulation: perform chest compressions

- Place heels of one or two hands in middle of chest between nipples.
- Push hard and Fast at least (100x per min but no more than 120 per) about 2 inches in depth of the chest
- Allow chest to recoil completely minimize interruption.
- Provide continuous cycles of 30 compressions and 2 rescue breaths until an AED arrives EMS arrives or child shows signs of life

A

Airway. Open Airway

- Till the head, lift the chin

B

Breathing: check Breathing

- Look for breathing for 5 but no more than 10 seconds
- If the child is not breathing, give 2 breaths that make chest visibly rise, but no more than that.

D

Defibrillation: Use an AED if Available

- Turn on AED, listen to and follow voice prompts.
- Using infant/child system, attach pads to child's bare chest and allow AED is analyze heart rhythm. If no infant/child pads are available go ahead and use adult pads, and put one in the center of the chest and in the center on the back of the child
- If shock advised CLEAR child and deliver shock
- Immediately resume CPR, listen to and follow AED voice Prompts.

Skill Practice # 8

Infant CPR- Perform these steps quickly

Emergency Action Steps

- Assess scene. If scene is not safe or at any time becomes unsafe. GET OUT!
- Assess infant. Tap foot, about out loud not moving? No response?
- Alert have someone alert EMS, and get an AED, if you are alone provider with a cell phone call EMS and put the phone on speaker. If you are alone without a cell phone provide two minutes of care before calling EMS.
- Attend to the CAB

C

Circulation: perform chest compressions

- Place to fingertips in the middle of the chest just below the nipple line.
- Push hard and Fast at least (100x per min but no more than 120 per) 1 1/2 inches in depth of the chest.
- Allow chest to recoil completely minimize interruption.
  Provide continuous cycles of 30 compressions and 2 rescue breaths until EMS arrives or infant shows signs of life

A

Airway. Open Airway

- Till the head, lift the chin not too far back sniffing position

B

Breathing: check Breathing

- Look for breathing for 5 but no more than 10 seconds
  If the infant is not breathing. Give 2 breaths that make chest visibly rise, but no more than that.

D

Defibrillation: Use an AED if Available

- Turn on AED, listen to and follow voice prompts.
- Using Infant/child system, attach pads to child's bare chest and allow AED is analyze heart rhythm. If no infant/child pads are available go ahead and use adult pads putting one pad in the center of the chest and in the center on the back of the child
- If shock advised CLEAR child and deliver shock
- Immediately resume CPR, listen to and follow AED voice Prompts.

Skill Practice # 9

Adult compression – only CPR -Perform these steps quickly

Emergency action steps

- Assess scene. If scene is unsafe or at any time becomes unsafe. GET OUT!
- Assess victim. Top shoulder, should name not moving? No response?
- Alert have someone alert EMS, and get an AED. If alone do this yourself. If you have a cell phone call EMS and put the phone on speaker.
- Attend to the CAB

C

Circulation: perform chest compressions

- Place heels of hands in middle of the chest between nipples.
- Push hard and Fast at least (100x per min but no more than 120 per) 2 inches deep.
- Allow chest to recoil completely minimize interruption.
  Continue compressions until an AED arrives, EMS arrives, or victim shows signs of life.

Opioid Overdose

This section is only for Childcare Providers general information or childcare providers that work with families or children with known drug related issues.

The abuse of opioid drugs to get a euphoric high is a serious and growing health problem, increasing prescriptions for opioid pain relievers, such as hydrocodone and oxycodone, have made them more commonly available. The use of heroin, a highly addictive opioid, also contributes to the problem.

As a result, the number of overdoses and deaths from prescription opioids and heroin has increased dramatically. Opioids, taken in excess, can depress and stop breathing. An opioid overdose is a clear cause of secondary cardiac arrest. Naloxone, also known as Narcan, is a medication that can temporarily reverse the life-threatening effects of opioids. It is easy to administer, either through an auto-injector device or through an aerosol that is sprayed into the nose. Naloxone is becoming more readily available to lay providers.

Section 5 – Choking

Foreign Body airway obstruction

Choking occurs when an object blocks the passage that allows air in and out of the lung's food, especially large pieces, is the most common cause of choking

Young children are particularly at risk because of the small size of their air passages, inexperience with chewing, and a natural tendency to put object in their mouth.

Rescuers must be able to recognize the difference between a mild blockage and a severe blockage of the airway. A mild blockage can typically be cleared by the victim through a natural coughing reaction. When a severe blockage occurs, it is impossible to clear the airway through natural means. Help from a bystander is required to save the victim's life.

Adult and children

Sign and symptoms of a blockage

- victim can speak
- strong coughing or gagging

First Aid

- Encourage victim to cough.
- Stay with the victim and watch closely.
- Be ready to take action if symptoms worsen.
- If blockage continues, alert EMS.

Sign and symptoms of a server blockage

- Hands clutching throat.
- Victim cannot speak, cough, or make any sound
- Blue lips, pale skin.
- Unresponsive,

First aid

- Ask, "Are you choking?" if victim nods or is unable to speak, cough, or cry – act quickly!
- Tell them I am going to help you (consent)
- Stand behind an adult or kneel behind a child
- Make a fist. Place the thumb side of your list against the victim's abdomen, just above the navel.
- Give quick inward and upward thrusts until the object is expelled or the victim becomes unresponsive.

If the choking victim is in the late stages of pregnancy or is obese, and you cannot get your arms around the abdomen, you can perform chest thrusts to remove the blockage.

First Aid

- Place your arms under the victim's armpits encircling the chest
- Place the thumb side of your fist on the middle of the sternum
- Grasp your fist with your other hand and thrust back ward and upward.
- Give quick backward thrust until the object is expelled or the victim becomes unresponsive.

If you are alone, it is possible to relieve the blockage yourself.

First Aid

- Give yourself abdominal trusts until the objects expelled.
- If that does not work, press your abdomen quickly over firm surface (back of a chair side of a table, etc.)
- Try to dial 911 on your phone and set the receiver down
- Try to get outside

If a choking victim becomes unresponsive during treatment, change your approach to care.

First Aid

- Carefully get the victim to the ground
- Immediately alert EMS or activate your emergency action plan. If you have a cell phone call EMS and put the phone on speaker. If alone with (no cell phone) and with a child give 5 cycles or about 2 minutes of CPR, and run call EMS and return to the child as fast as possible.
- OPEN THE AIRWAY, Remove the object the object if you see it

- Begin CPR each time the airway is opened for rescue breaths, look for an object in the victim's throat if you see it, remove it continue CPR until the AED or EMS arrives or the victim shows sign or life.

Infant

Infants who are choking require a different approach than that of an adult or child

Signs and symptoms of mild Blockage

- Can breathe in and out
- Crying, gagging
- Strong coughing

First Aid

- Stay with infant and watch closely.
- Be ready to take action if symptoms worsen
- If blockage continues, alert EMS.

Signs and symptoms of a severe Blockage

- Infant cannot cough or make any sound
- Blue lips, pale skin
- Do not attempt a finger sweep as you may push the object down deeper
- Unresponsive

First Aid

- Place infant head down with head lower than chest.
- Give 5 back blows between the shoulder blades with enough force to expel the object
- Turn the infant face up.
- Give 5 chest thrusts just below nipple line with enough force to expel object.
- Repeat until object is expelled or infant becomes unresponsive.

If a choking infant becomes unresponsive during treatment, change your approach to care

First Aid

- Place the infant on a firm, flat surface
- Alert EMS – or initiate your emergency action plan. If you have a cell phone call EMS and put it on speaker
- Open the airway. Remove the object if you see it
- Begin CPR each time the airway is opened for rescue breaths. Look for an object in the infant's throat if you see it. remove it
- Continue CPR for 5 cycles

Abdominal thrusts have been associated with severe and fatal complications. Complications may occur even when abdominal thrusts are performed correctly DO NOT perform abdominal thrusts on an adult or child unless it is necessary. A victim who has had an airway obstruction that was removed by abdominal or chest thrusts should be evaluated by EMS and seen by a physician to assure no internal injuries resulted from the event.

Abdominal thrusts are not recommended for infants because you may damage internal organs. An infant who has had an airway obstruction that was removed by back blows or chest trusts should be evaluated by EMS and seen by a physician to assure to internal injuries resulted from the event.

Skill Practice # 10

Adult Choking: Severe blockage -Perform these steps quickly

Emergency action steps

- Assess victim suspect serve blockage if victim reacts suddenly and is clutching throat

1

Responsive

- Quickly ask "Are you chocking"
- If the victim nods yes, it is unable to speak or cough act quickly.
- Tell them I am going to help you (consent)
- Stand behind victim
- Make a fist. Place the thumb side against the victim's abdomen, just above the navel and below the ribs grasp fist with other hand.
- Quickly thrust inward and upward into the abdomen
- Repeat thrusts until object is expelled or victim becomes unresponsive

2

Unresponsive

- Carefully get victim to the ground and alert EMS - if you have a cell phone put it on speaker
- Begin CPR each time airway is opened for rescue breaths, look for an object in victim's throat if seen remove it.
  Continue CPR until an AED arrives, EMS arrives, or victim shows signs of life.

Skill Practice # 11

Child Choking: Severe Blockage -Perform these steps quickly

Emergency action steps

- Assess child suspect serve blockage if child reacts suddenly and is clutching throat

1

Responsive

- Quickly ask "Are you chocking"
- If the child nods yes, it is unable to speak cough or cry -act quickly.
- Tell them I am going to help you (consent)
- Kneel behind victim
- Make a fist. Place the thumb side against the child abdomen, just above the navel and below the ribs grasp fist with other hand.
- Quickly thrust inward and upward into the abdomen
- Repeat thrusts until object is expelled or victim becomes unresponsive

2

Unresponsive

- Carefully get child to the ground have someone alert EMS. If you have a cell phone call EMS and put it on speaker. If you are alone (without a cell phone) perform for about 2 minutes of care before calling yourself
- Begin CPR each time airway is opened for rescue breaths, look for an object in child throat if seen remove it.
  Continue CPR until an AED arrives, EMS arrives, or victim shows signs of life.

Skill Practice # 12

Infant Choking: Severe Blockage -Perform these steps quickly

Emergency action steps

- Assess infant, suspect severe blockage if infant suddenly becomes very quiet.

1

Responsive

- Quickly look at the infant's face
- If the infant is silent and unable to cry, and has blue lips, finger tips or skin – act quickly.
- Do not attempt a finger sweep on a responsive infant you may push the item in further
- Lay the infant face down on your forearm, support the head and tilt it downward.
- Give 5 firm back blows between shoulder blades.
- Sandwich infant between your arms and roll over onto the other forearm.
- Using two fingertips just below nipple line, give five chest trust
  Repeat 5 back blows and 5 chest thrusts until object is expelled or infant becomes unresponsive

2

Unresponsive

- Place infant on a firm flat surface, have someone alert EMS. If you are alone, with a cell phone call EMS and put the phone on speaker. If alone without a cell phone, perform about two minutes of care before calling yourself.
- Begin CPR, each time airway is opened for rescue breaths, look for an object in infant's throat if seen remove it.
  Continue CPR until an AED arrives, EMS arrives, or infant shows signs of life.

Section 6 – Legal and Emotional Aspects

Legal Considerations

Legal issues are an important element of emergency care and a frequent concern of CPR and first aid providers.

The good Samaritan principle prevents someone who has voluntarily helped another in need from being sued for 'wrongdoing' you are generally protected from liability as long as you act reasonable and in "good faith" without payment or reward, and you do not provide care beyond your skill level.

Consent is permission. A responsive adult must agree to receive first aid care "Expresses Consent" means the victim gives his or her permission to receive care to get consent, first identify yourself, then tell the victim your level of training and ask if it's okay to help.

"Implied consent" means that permission to provide care to an unresponsive victim is assumed this is based on the idea that a reasonable person would give their permission to receive lifesaving first aid if able.

Consent for children must be gained from a parent or legal guardian. When life – threatening situations exist and the parent or guardian is not available, care should be given based on implied consent.

There is no evidence of a single successful lawsuit in the U.S. against a person providing first aid in good faith.

Always follow some basic guidelines when providing first aid care

- Never attempt skills that exceed your training
- Don't move a victim unless his or her life is in danger.
- Call for emergency medical services immediately, even if you decide not to give first aid.
- Always ask a responsive victim for permission before giving care.
- Once you have started CPR, don't stop until qualified help arrives, you become too exhausted to continue, or the scene becomes too dangerous for you to stay.

Emotional considerations

It is possible a trained rescuer may choose not to do CPR due to a fear of hurting a victim through incorrect skill performance.

An important point to remember is that a person in cardiac arrest is already dead and will not improve without early treatment of any kind. It is not possible to make them worse.

Even with high quality CPR, many cardiac arrest victims do not survive; rescuers should not hold themselves responsible when an attempt does not restore life.

A rescuer may suffer emotional distress during or following an incident in which they perform CPR. Stress reactions are a normal, human response to a traumatic event.

Most people gradually feel better as time goes by. If you feel you need extra help coping, call your doctor or ask friends if they can recommend a mental – health professional. The organization you work for may have an employee assistance program available to assist you.

Sign and symptoms

During Incident

- Anxiety / worry
- Trembling / shaking
- Sweating.
- Fast breathing
- Pounding heartbeat, shock, anger
- Excitement, intense fear.
- Nausea

Following incident

- Thinking about event repeatedly
- Worry about self or loved ones.
- Guilt for not having done more.
- Tense muscles, diarrhea/ constipation nausea / vomiting, headaches, tired.
- Easily startled.
- Lack of interest in usual activities.
- Sadness, feeling detached sleep problem / nightmares.
- Problem concentrating
- Hyperactive/depressed

First Aid

During incident

- Remain calm and act sensibly
- Accept your own limitations as rescuer.

Following incident

- Remind yourself that stress reactions are normal and will pass.
- Get back into a normal routine as soon as possible.
- Be kind to yourself; allow time to deal with memories of the incident.
- Accept every person's right to his or her own feelings
- Keep what happened in a realistic perspective.
- Exercise, eat, drink, and rest,
- Have a connection to professional resources for continued care of necessary.

Section 7 – Responding to Emergencies

Emergencies Action Steps

Roles and responsibilities of the First Aid provider

Roles

The basic role of a first aid provider is to recognize a medical emergency and make a decision to help.

Your personal safety is your highest initial priority, followed by the victim and any bystanders.

Responsibilities

- Maintain composure.
- Maintain personal health and safety.
- Maintain caring attitude.
- Maintain up-to-date knowledge and skills
- Without putting yourself in danger, make the victims' needs your main concern
- Do no further harm.

Emergency Action Steps

The emergency action steps are intended to help the first aid provider respond to an emergency and manage life-threatening problems of the airway, breathing, and circulation in a victim of any age

Whenever you recognize and emergency, you should assess the scene for safety. Pause for a moment as you approach the victim. If the scene is not safe, or at any time becomes unsafe GET OUT!

Assess the victim. What is your first impression? Is the victim responsive? If the victim is unresponsive, appears badly hurt, seriously ill, or quickly gets worse....

Alert EMS Call 9-1-1 or active your Emergency Action Plan.

Attend to the victim. Check the victim's airway breathing and circulation. Refer to the universal first Aid procedures.

Info

Universal first Aid Procedures

Assess the scene

- **If it is not safe, or at any time becomes unsafe GET OUT!**
- **Observe Universal Precautions (Use Personal Protective Equipment)**
- **If victim is awake and talking, identify yourself; ask if it is okay to help.**
- **If victim appears weak, seriously ill or injured, or is unresponsive….**

Alert EMS

Call 9-1-1 or active your emergency action plan

Attend to the Victim

C = Circulation

- **Look for and control severe bleeding with direct pressure.**
- **Monitor tissue color and temperature.**
- **Help maintain normal body temperature.**

A = Airway – open Airway

- **If unresponsive. Tilt head – lift chin**

B = Breathing – Check Breathing

- **Look for breathing for at least 5 seconds, but no more than 10**
  - **Unresponsive not breathing perform CPR.**
  - **Unresponsive breathing normally place in recovery position if injured.**

Provide First Aid treatment

- **Suspected spinal injury – place your hand on both sides of victim's head to stabilize it**
- **Suspected Limb injury – place your hands above and below the injury to stabilize it**
- **Consider performing physical assessment (SAMPLE /DOTS)**

Skill Practice # 2

Unresponsive Victim
Perform these steps quickly

Emergency action steps

- Assess scene. If the scene is not safe or at any time becomes unsafe. GET-OUT!
- Assess Victim. Victim is responsive? Identify yourself: ask if it's okay to help. If the victim appears weak. Seriously ill, injured or is unresponsive....
- Alert EMS, or activate Emergency Action Plan
- Attend to the CABs. Ensure an open airway, normal breathing, and control bleeding

C **Circulation**

- Look for blood pumping or pouring out of a wound
- Use your personal protective equipment (gloves)
- Control blood flow with direct pressure.
- Look for normal tissue color.
  Use your exposed wrist to feel for body temperature.

A **Airway. Open Airway**

- Tilt the head – lift the chin

B **Breathing – Check Breathing**

- Look for normal breathing for 5, but no more than 10 sec.
- If the victim is not breathing normally or you are unsure, perform CPR
- If the victim is breathing normally, assess circulation.

Continue to Attend to the CABs

- Keep the airway open.
- Ensure normal breathing.
- Control bleeding
- Monitor tissue color and temperature.
- Help maintain normal body temperature.

	Skill Practice # 3
	Responsive Victim
	Emergency action steps • Assess scene. If the scene is not safe or at any time becomes unsafe. GET-OUT! • Assess Victim. Victim is responsive? Identify yourself: ask if it's okay to help. If the victim appears weak. Seriously ill, injured or is unresponsive.... • Alert EMS, or Activate Emergency Action Plan • Attend to the CABs. Ensure an open airway, normal breathing, and control bleeding
C	**Circulation** • Look for blood pumping or pouring out of a wound • Use your personal protective equipment (gloves) • Control blood flow with direct pressure. • Look for normal tissue color. Use your exposed wrist to feel for body temperature.
A	**Airway.** • Ensure victim is fully responsive. Able to keep airway open and clear
B	**Breathing** • Ensure victim is breathing normally.
	Continue to Attend to the CABs • Ensure airway is open, breathing is normal • Control bleeding • Monitor tissue color and temperature. • Help maintain normal body temperature. Consider asking about signs, symptoms and medical history and performing a head – to – toe check or injuries (physical assessment)

Physical Assessment

The physical assessment is designed to identity signs and symptoms of illness or injury not discovered when attending to the airway, breathing and circulation, physical assessment is performed after assessing for and attending to any immediately life-threatening problem. To "perform a physical assessment "on a victim means to do a head –to –toe check for injuries it also includes asking an injured or ill victim about signs, symptoms, and their medical history. Information obtained from performing a physical assessment can be useful for the first aid provider or other health care professionals

Emergency moves

In most cases a first aid provider should not move an ill or injured person. Emergency services personal are the best trained and equipped to do this, and you should wait for them. However, in a life-threatening emergency or catastrophic disaster, there may not be time to wait for professional help. In these cases, it may be necessary to perform an emergency move.

In a situation such as a fire explosion, or collapse, you may be able to drag a victim to safety, Drag the victim in the direction of the long axis of the body to protect the spine as best as possible. Never pull the victim sideways or pull the head away from the neck and shoulders.

If you must perform an emergency move, use good lifting techniques:

- Use your legs – not your back – and keep the weight as close to your body as possible
- Lift without twisting.
- Consider victim's weight.
- Know your physical ability and respect your limitation

Do not leave an unconscious or semi-conscious person, including one "passed out" from excessive alcohol or drug use, alone while lying flat on their back. It can be fatal. If you hear gurgling or the unresponsive victim vomits, you must get the victim quickly onto their side to protect the airway. The victim must have an open airway in order to live

Multiple victim and disasters A first aid provider may face situation with more than one victim; these situations may range from auto crashes to catastrophic natural disasters or terrorist attacks. When there are many injured victims the first aid provider must try to prioritize them by how urgently they need care. This is called triage a French word meaning "to sort" the goal of triage is to do the greatest good for the greatest number. To accomplish this goal, the first aid provider must not begin to provide care at random

To begin triage, first call out "if you can walk, come to the sound of my voice" if there are victims who can walk, instruct them to remain at a safe location, victims who are not seriously ill or injured may also be able to help provided first aid. As First Aid Providers move from victim to victim, quickly assessing their condition and sorting them into three basic groups.

- Immediate: The victim has life –threatening injuries, Rapid lifesaving is urgent (example: unresponsive victim with profuse bleeding)
- Delayed: the victim does not have life –threatening injuries. Treatment may be delayed (example: responsive victim with broken leg.)
- Dead: no signs of life or obviously dead.
- Look for breathing for at least 5 seconds, but no more than 10
    - Unresponsive not breathing perform CPR.
    - Unresponsive breathing normally, place in recovery position if injured.

C = Circulation

- Look for and control severe bleeding with direct pressure.
- Monitor tissue color and temperature.
- Help maintain normal body temperature
- Provide First Aid treatment
- Suspected spinal injury – place your hand on both sides of victim's head to stabilize it
- Suspected Limb injury – place your hands above and below the injury to stabilize it
- Consider performing physical assessment (SAMPLE /DOTS)

Section 8 – Bleeding, Shock, and Soft Tissue Injuries

Life cannot continue without an adequate amount of blood to carry oxygen to body tissues. The longer a victim bleeds from a major wound, the less likely they are to survive.



Severe External Bleeding

Signs and symptoms

- A large amount of blood is pumping, gushing or pouring from an open wound
- Pain
- Progressing shock

First Aid

- Assess, Alert EMS and Attend to the CABs
- Observe Universal Precaution and use personal protective equipment
- Direct pressure is considered the most safe and effective technique that can be used in the control of bleeding.
- Apply direct pressure
- Care for shock

Internal bleeding

Sign and symptoms

- Abdominal pain
- Blood in stool, urine or vomit
- Progressing shock.

First Aid

- Observe Universal Precaution and use personal protective equipment
- Asses and attend to the CABs
- Care for shock
- Alert EMS, if you have a cell phone use it and put it on speaker.

Shock

Excessive bleeding will lead to shock. Shock result in a dangerous drop in blood flow and a lack of oxygen to body tissues, shock will lead to death if not treated promptly.

Sign and symptoms

Early

- Victim appears uneasy. Restless or worried later on
- Changes in responsiveness.
- Cool, wet skin from heavy sweating.
- Pale or bluish tissue color.
- Shivering
- Intense thirst
- Nausea, vomiting
- Shallow or gasping breathing.
- Below normal body temperature.

First Aid

-
- Use personal protective equipment
- Assess, and Attend to the CABs.
- Control severe bleeding
- Maintain normal body temperature.
- Prevent chilling or overheating
- It is best to leave the victim lying flat especially when there are serious injuries to the pelvis, lower limbs, head, chest abdomen, neck, or back.
- Alert EMS, if you have a cell phone use it and put it on speaker.

Skill Practice # 5

Severe bleeding and shock -
Perform these steps quickly

Emergency action steps

- Assess scene. If the scene is not safe or at any time becomes unsafe. GET OUT!
- Assess victim, victim is responsive? Identify yourself; ask if it's okay to help. If the victim appears weak, seriously ill, injured, or is unresponsive.
- Alert EMS, or Activate Emergency Action Plan.
- Use personal protective equipment
- Attend to the CABs Ensure an open airway normal breathing and control bleeding

Apply Direct Pressure

- Rip or cut away the clothing so the wound can be seen
- Place an absorbent pad directly over the wound.
- Apply firm direct pressure over the wound
  Victim can assist if they are able.

Apply pressure Bandage

- Wrap a conforming bandage securely over the pad to maintain pressure and hold the gauze in place
  Should be loose enough a finger can be slipped under the bandage

If Bleeding Continues

- Or the first dressings become soaked with blood apply more pads, dressing and maintain direct pressure.
  Do not remove any of the dressings.

Manage Shock

- Keep the victim flat.
- Ensure an open airway and adequate breathing.
- Keep the bleeding under control
- Prevent chilling or overheating.
- It is best to leave the victim lying flat.

Major wounds

A wound is a break in the skin; wounds can range from a tiny splinter to a complete amputation. All wounds need first aid. Serious wounds require medical attention. A wound may be sign of serious injury to deeper tissues and organs. The role of the first aid provider is to control bleeding. Reduce pain and prevent infection

Amputation or Avulsion

Amputation is loss of a body part. Avulsion means that some tissue remains connected

Sign and symptoms

- Massive or minimal bleeding may be present
- Pain
- Progressing shock

First Aid

- Assess Alert and Attend to the CABs
- Use personal protective equipment.
- Control bleeding.
- Care for shock
- Amputated body parts can often be reattached. If possible, get the severed part back and give it to EMS provider.
- Cooling the amputated (or severed) body part will keep tissue alive much longer.
    - Wrap the severed part in a sterile or clean cloth.
    - Place it in tightly sealed plastic bag or waterproof container.
    - Place the bag or container on ice.
    - Do not sink the part in water: and do not put it directly on ice
    - Chill but do not freeze it.
    - Place the person's name and the time it was amputated on the bag.
    - Get to hospital as soon as possible.

IMPALED OBJECT

An object embedded in to tissue

Sign and symptoms

- Bleeding
- Pain
- Progressing shock.

First Aid

- Assess, alert and attend to the CABs
- Use personal protective equipment
- Do not attempt to remove clothing that is stuck to the wound
- Quickly check the victim to see if there is an entry and exit wound, if there are two wounds, treat the more serious one first.
- Leave impaled object in place
- Put direct pressure around the impaled object to help control bleeding

Open Abdominal Injury

- Allow the person find a position of comfort
- Cover with thick, moist dressing
- Do not push the organs back inside the body.

- Do not apply direct pressure on the wound or exposed internal parts, as this could cause further injury.

Open Chest Injury

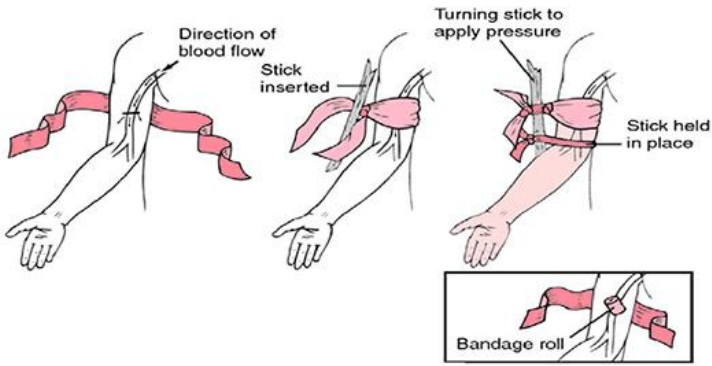
A penetrating injury through the chest wall can disrupt the chests ability to draw air into the lungs.

- Activate EMS
- Allow the person to assume a position of comfort
- Use personal protective equipment
- Remove clothing to see if there is an exit injury on other side.
- If there is bleeding try to control with direct pressure
- **Do not seal the open wound with an airtight dressing**

If Bleeding continues and you cannot get the bleeding stop on a limb and medical services are delayed or over whelmed.

Tourniquet

Tourniquet should not be used in a childcare setting unless medical services are delayed or over whelmed do to an earthquake or other mass casualty environment. Tourniquets are to only be used if you cannot get the bleeding stop by normal means and if the wound is on an arm or leg.



- Apply a commercial tourniquet, if not available, use an improvised one instead.
- Snugly place compressing band a few inches above injury. Twist handle or tighten band until bleeding stops. Secure handle in place
- Note the time the tourniquet was put in place.
- Do not move or loosen and get to hospital as soon as possible.

Hemostatic Dressing

Hemostatic dressing should not be used in a childcare setting unless medical services are delayed or over whelmed do to an earthquake or other mass casualty environment. Hemostatic dressings should only be used if you cannot get the bleeding stop by normal means and if the wound is in an area where a tourniquet cannot be used.

If bleeding continues on Torso

- Consider using a hemostatic dressing if one is available and you are trained to use it.
- Pack dressing tightly into open wound. Place remaining dressing on top of packed wound.
- Secure in place with direct pressure to a pressure bandage until bleeding stops.
- Get to hospital as soon as possible.

Minor Wounds

Types

Minor wounds include abrasions lacerations, punctures, and incisions. The most significant issue to consider with any open wound is control of bleeding and infection.

Sign and symptoms

- Break or opening in the skin.
- Bleeding may be minor, moderate
- Protruding objects.
- Infection
- Progressing shock

First Aid

- Use personal protective equipment
- If bleeding, apply direct pressure with a clean cloth or absorbent pad.
- Wash with soap and water. Running tap water for about 5 minutes or until there appears to be no foreign matter in the wound
- Cover the area with an adhesive bandage or gauze pad.

Bruise

A bruise is caused by broken vessels leaking blood under the skin

Sign and symptom

- Pain
- Swelling and discoloration.

First Aid

- Apply ice to the injury to reduce pain bleeding and swelling
    - to prevent cold from affecting the injury place a thin towel or cloth between the cold source and the skin
    - limit application to 20 Minutes or less

Splinter

Splinters need to be removed to keep the wound from becoming inflamed, leading to possible infection most splinters are remove easily at home or in the workplace. Child care centers and staff should let the parents remove splinters at home. Childcare staff should never use a needle to try and remove a splinter.

Sign and symptoms

- small place of foreign material imbedded into and just below the skin

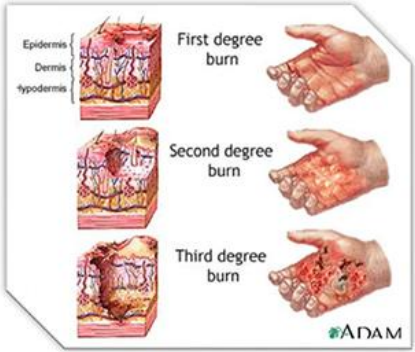
First Aid

- Using a pair tweezers, grab the protruding end of the splinter and pull it out along the direction it entered.
- If a splinter appears deeply embedded or you have only been able to remove a place of it the wound should be seen by a healthcare professional.

When to have a wound evaluated by a healthcare professional

When the wound

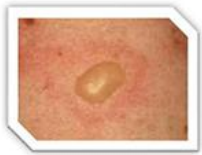
- **Won't stop bleeding with firm direct pressure.**
- **Is deep or longer than ½ inch (these may need closing with stitches or skin glue.**
- **Is on the face especially when close to the eye.**
- **Involves injury to underlying structures.**
- **Was caused by a dirty or rusty object.**
- **Has dirt, stones, or gravel struck in it?**
- **Was caused by an animal or human bite**
- **Is extremely painful.**
- **Is infected (warm, red, swollen or draining)**
- **If you are concerned and have question, you should not hesitate to contact your healthcare professional.**



Burns

Terminal burns are caused by the sun, fire hot liquids or objects and hot gases. Electrical burns are caused by contact with electrical wires or lightening. Chemical burns are caused by contact with wet or dry chemicals. Burns on the face, hands feet and genitals can be particularly serious Burns inflict tremendous damages to the body. They can cause extreme pain, scarring massive infection, organ failure, and death. A rescuers highest priority is personal safety. If a victim is on fire, tell them to STOP DROP and ROLL. If a victim is in contract with electricity shut off the power.

Major Burns



Burns considered as serious include those involving the hands, face, eyes, ears, feet, or genitals. They also include electrical burns and burns involving smoke inhalation, fractures, or other injuries.

Sign and symptoms

Dry / Leathery, white or blackened, charred skin, blisters.

First Aid

- Use personal protective equipment
- Asses, Alert and Attend to the CABs
- Expose burn
- Cut and gently lift away any clothing covering the burned area.
- If clothing is stuck to the burn, do not remove.

- Remove jewelry if possible (burns cause swelling)
- Separate fingers with dry. sterile non-adhesive dressings
- Lightly cover the burn area with a dry sterile bandage or a clean sheet if the burned area is large
- If it's available and you are property trained give emergency oxygen
- If the victim is in contact with a liquid chemical immediately flush, the chemical off with large amounts of water (15-20 minutes) call Poison control help line at 1-800-222-1222 for treatment advice.
- Call 911 for transport to hospital for proper care

Minor Burn

Minor burn most minor burns involve but do not destroy skin tissue. Rapid first aid treatment can provide immediate comfort and prevent long term complications

Sign and symptoms

- Pain
- Redness
- Swelling
- Blisters

First Aid

- Expose the burn.
- Cool heat burns with cool water as quickly as possible and continue cooling at least 10 minute or until the pain is relived
- Never use ice or a frozen compress
- If no running water is available and you can use a clean cloth or towel soaked with cool water and continue and apply to the burn to cool the burn and repeat as necessary or submerge in cool water.

- Immediate cooling of minor burns will reduce swelling, infection, and depth of the injury it will allow faster healing with less scarring.
- After cooling cover the burn with a dry, sterile bandage or a clean dressing

- Protect the burn from pressure and fiction
- Do not pop burn blister or apply ointment butter, or any other substance to burn

Bites and Stings

Bites and sting that could require first aid care can occur from a variety of source. Most cause only minor discomfort and can easily be treated by a first aid provider.

However, the bites and sting from venomous snakes, insects or marine animals can cause intense pain and swelling if not treated promptly and correctly they can even cause serious illness or death.

Bites from human and other animals, such as dogs, cats, bats, raccoons, and rats, can cause severe injury and infection, including tetanus and rabies.

Some people have severe allergic reactions to bites or sting that can be life – threatening. In these cases, the most important first aid measure is rapid transport to comprehensive medical care

General signs and symptoms

- Swelling
- Redness
- Pain
- Itching

General First Aid

- As a precaution always remove jewelry and constructive clothing from the bitten area.
- Wash the wound with soap and clean, running tap water
- Cover the area with an adhesive bandage or a gauze pad
- Watch for signs of severe allergic reaction.

- Be prepared to call 911
- If needed, apply ice to the injury to reduce pain and swelling.
    - To prevent cold injury, place a thin towel or cloth between the cold source and the skin.
    - Limit application to 20 minutes or less.

Cottonmouth or rattlesnake

Venomous snakes generally bite humans only in defense, when surprised or threatened, because they can sense that we are far too big for them to eat.

Pit vipers such as cottonmouths and rattlesnakes account for 98% of human bites. Because they have long fang that unfold when they strike, acting like hypodermic needles. It is very efficient mechanism for injection venom.

Sign and symptoms

- Single or double fang marks.
- Bleeding
- Intense burning pain and local swelling.
- If untreated, swelling may involve the entire limb within hours.
- Whole body effects include nausea, vomiting sweating, fever weakness, numbness, altered mental state and shock.

First Aid

- If bleeding apply direct pressure with a clean cloth or absorbent pad.
- Remove jewelry and constrictive clothing
- Cover the bite with an adhesive bandage or a gauze pad.
- Keep the injured part immobilized below heart level.
- Keep the victim warm, reassured, and quiet.
- Seek medical attention.

- Do not cut out snakebite wounds, apply suction, ice, or tourniquets, these are of no proven value and may be dangerous.

Severe Reaction

- Assess, Alert and attend to the CABs
- Contact EMS and or seek medical attention

Coral Snake

Coral snakes are small shy snakes with small mouth and have to chew to inject venom.

Their venom is a potent neurotoxin, which can paralyze and even kill from respiratory or heart failure

Signs and symptoms

- Pain and swelling may be minimal or absent
- Abdominal pain (within hours of the bite.)
- Whole body effects (may be delayed up to 6 hours) include: nausea, vomiting sweating weakness, altered mental state rapid heartbeat drooling, difficulty breathing and /or stoppage of breathing

First Aid

- If bleeding apply direct pressure with a clean cloth or absorbent pad.
- Remove jewelry and constrictive clothing
- Cover the bite with an adhesive bandage or a gauze pad.
- Keep the injured part immobilized below heart level.
- Keep the victim warm, reassured, and quiet.
- Seek medical attention.
- Do not cut out snakebite wounds, apply suction, ice, or tourniquets, these are of no proven value and may be dangerous.

Severe Reaction

- Asses, Alert and attend to the CABs
- Contact EMS and/or seek medical attention

Venomous Spider Bite

Most spiders have venom glands, but only a few dozen species are dangerous to human, spiders have fangs, which in most species move horizontally like pincers.

The venom of spiders has both neurotoxins to paralyze the prey, and digestive enzymes to liquefy the prey. In a few spiders, the digestive enzymes are strong enough to destroy calls and cause systemic toxicity in humans

Widow, Brown or Violin Spiders

Signs and symptoms

- Bite site tender, swollen, painful, itchy, red
- Puncture marks, bleeding
- Whole body effects include.

-cramping, pain, in stomach, or shoulders, back, and chest

- Fever, chills, rash anxiety / weakness, nausea / vomiting, rash /allergic reaction / difficulty breathing

First Aid

- Remove rings. Watches and constrictive clothing.
- Wash with clean, running tap water to several minutes.
- Cover the area with an adhesive bandage or a gauze pad.
- Apply ice to the injury to reduce pain, and swelling

  - place a thin towel or cloth between the cold source and the skin.

  - limit an application to 20 minutes or less.
- Keep the victim warm, reassured and quiet.
- Seek medical attention.

Sever Reaction

- Assess, Alert, and Attend to the CABs

Bees, Wasps, Fire Ants

Bees, wasps, and fire ants will usually attack only in defense of their nests or territories. While wasps and fire ants can sting repeatedly, honeybees have a barbed stinger that usually cannot be retracted from human skin. The bee disembowels itself as it pulls away, leaving the venom sack still pulsing as it continuous to inject venom.

Sign and symptoms

Minor Reaction

- Bite site pain, redness, swelling, itching

Moderate Reaction

- Bite site reaction expands slowly to more than 4 inches (10 centimeters) across

Severe Reaction

- Whole body effects
- Allergic reaction – can be fatal!
- Hives (raised itchy, bumps on skin)
- Itching all over body
- Swelling of mouth or throat or both
- Shortness of breath / difficulty breathing
- Nausea / vomiting
- Chest pain / palpitations
- Anxiety / weakness /fainting.

First Aid

Minor Reaction

- If present, remove the stinger as quickly as possible by scraping with a flat edge of a card, such as an ID card, debit card or Etc.
- Remove jewelry and constructive clothing.
- Wash with clean, running tap water for several minutes.
- Apply ice to the injury to reduce pain and swelling.

  -place a thin towel or cloth between the cold source and the skin

Limit an application to 20 minutes or less

Severe Reaction

- Assess, Alert, and Attend to the CABs
- If the victim has a history of hypersensitivity and carries a lifesaving epinephrine auto injector prescribed by a physician, and if the victim is showing signs of severe allergic reaction -help them use it. If the victim is unable the first aid provider should administer it.
- Contact EMS

Fire Coral, Sea Anemones, Jellyfishes

Almost all venomous marine animals are found in warm water, generally in the shallows or around coral reefs. They will usually sting only if disturbed or handled.

Sign and symptoms

Minor Reaction

- Sting site painful, released, red itchy, rash.

Severe Reaction

- Whole body effects.
- Shortness of breath / difficulty breathing
- Nausea / vomiting
- Anxiety / weakness / fainting.
- Chest pain / palpitations.

First Aid

Minor Reaction

- Carefully remove stingers or tentacles using forceps or remove them with a card, towel.
- Remove jewelry and constructive clothing.
- Apply with vinegar for 30 seconds or water and baking soda solution.

Severe Reaction

- Assess, Alert, and attend to the CABs

- Contact EMS

Stingray Sting

Stingrays are flat bottom dwellers in warm water shallows that often lie buried in the sand.

A whip – like tail, which has 1 or more barbed stinger snaps forward and drives the spike can penetrate shoes or a wetsuit and cause a deep puncture or laceration. It often breaks off in the wound

Sign and symptoms

Minor Reaction

- Sting site very painful
- Minor bleeding, swelling
- Blue then red tissue color.

Sever Reaction

- Whole body effects.
- Shortness of breath / difficulty breathing.
- Headache / nausea / vomiting
- Anxiety / weakness / fainting
- Chest pain / palpitations.
- Muscle cramps, pain paralysis
- Seizure

First Aid

Minor Reaction

- If bleeding, apply direct pressure with a clean cloth or an absorbent pad
- Remove any jewelry and constrictive clothing. Placing the injured area in water as hot as the victim can tolerate for 30-90 minutes can dramatically relives pain.
- Seek medical attention.

Severe Reaction

- Assess, Alert, and Attend to the CABs

Ticks

Ticks are blood feeding parasites that are typically found in tall grass and shrub where they can attach to a passing host by direct contact. A big concern with tick bites is the exposure to infectious disease.

Sign and symptoms

Minor Reaction

- Bite site Redness, itching, burning.

Severe Reaction

- Whole body effect (days to weeks after.)
- Fever / headache.
- Confusion
- Anxiety / weakness.
- Fainting
- Nausea / vomiting
- Difficulty breathing.
- Chest pain / palpitations

First Aid

To Remove a Tick

- Grasp if close to the skin with tweezers (or use a commercially available tick removal tool.)
- If tweezers or a tool is not available, use your fingers protected by gloves. Pull straight up with a steady. Slow motion.
- If bleeding, apply direct pressure with a clean cloth or an absorbent pad.
- Wash with clean, running tap water for about 5 minutes or until there appears to be no foreign matter in the wound.

- Cover the area with an adhesive bandage or a gauze pad.
- Change the dressing frequently.
- If portions of the tick remain embedded in the skin, or symptoms of severe reaction develop seek medical attention.
- Do not use fingernail polish, petroleum jelly, a glowing hot match, or alcohol to remove a tick, these are of no proven value and may cause additional injury.
- Do not jerk, crush, squeeze, twist, or pull so fast it breaks apart, or punctures the tick.

Human or Animal Bite

Minor/ moderate Bite

- Bite, bruise or break in skin, or blood.
- Sign of infection.
- Increasing pain.
- Bite Site, redness.
- Swelling, pus, warmth, red streaks, fever

Severe Bite

- A large amount of blood pumping, gushing, or pouring from an open wound.
- Pain
- Progressing shock.

First Aid

Minor / Moderate Bite

- If bleeding, apply direct pressure with a clean cloth or an absorbent pad.
- Wash with soap and clean, running tap water for about 5 minutes.
- Cover the area with an adhesive bandage or a gauze pad.
- Apply ice to the injury to reduce pain bleeding and swelling.

  -To prevent a cold injury, place a thin towel or cloth between the cold source and skin.

  -Limit the application to 20 minutes or less
- Seek medical attention.

Severe Bite

- Asses, Alert, and Attend to the CABs.
- Control severe bleeding and care for Shock.
- Save any tissue parts that were bitten off.
- Treat as an amputation.
- Report all animals that bite.

When caring for children

Millions of people are bitten by dogs every year producing serious injuries and even death. Children who are younger than 10 years represent the high-risk group for dog attacks. The majority of the dogs who attack children are familiar to them.

Teach children basic safety around dogs and review regularly.

When caring for older persons

Aging can make an older person more vulnerable to the beginnings of infection always watch any bite or sting or break in skin for sign of infection and especially so in older persons.

Teach adults basic safety around dogs and review regularly.

Prevention

- **Respect and use caution around insects and use caution around insects and animals. Do not harass them**
- **Wear an effective insect repellent when outside.**
- **Shuffle your feet while walking or wading in the ocean to scare stingrays away.**

Dental Injuries

Because they help determine facial appearance and function, traumatic injuries to the mouth, teeth, and jaw can have significant physical and emotional effects. Injuries involving the mouth and teeth often result from falls sports-related injuries, fighting, car crashes, and running into stationary objects. Teeth can be dislocated, broken or knocked out (avulsed) a permanent tooth that is knocked out can be put back in.

Dislocated or Broken Tooth

First Aid

- If lips, teeth, or gums are bleeding, apply direct pressure with clean cloth or an absorbent pad (or have the victim do it.)

- Handle the tooth only by the chewing surface (crown)
- Have the victim spit salvia into a cup and place the tooth in the cup or if they cannot.
- Place the knocked-out tooth in one of the following solutions:

  Hank's Balanced Salt Solution

  Egg white

  Whole Milk

  Coconut water

Have Parents

- Get to the dentist as quickly as possible. The faster you act, the better your chances of saving the tooth. Thirty minutes or less gives the best chance for success.
- Do not touch the root of the tooth
- Do not put avulsed tooth in water! Water is harmful to teeth cells.
- Do not scrub avulsed tooth or remove any attached tissue fragments.
- Do not allow avulsed tooth to dry.
- Do not wrap avulsed tooth in tissues, cloth or gauze.

Eye and Nose Injuries

Eye injuries range from minor, such as an irritation, to very severe, sever eye injuries are frequently caused by objects in the eye, burns, and blunt injuries. Any of these conditions can lead to a permanent loss of vision.

Minor irritated Eye

Sign and symptoms

- Pain, redness, stinging, burning, itching.
- Bleeding / brushing / black eye.
- Something stuck in eye.

- Sensitive to light.
- Increased of double vision.
- Problem with of vision.

First Aid

- Rinse the attached eye with a saline solution
- Tap water may be used if no saline solution is available. Use a drinking fountain, faucet, or garden hose running slowly.
- If the victim continues to have pain or feels like something is still in his or her eye, or if the object cannot be removed, cover both eyes lightly with a gauze pad or a clean cloth and seek medical attention.

Object stuck in Eye

First Aid

Protect the eye from further injury:

- Tape the bottom half of a foam or paper cup over the victim's eye to help keep both the eye and the object from moving.
- Lightly cover the uninjured eye with gauze or a clean cloth. As the eye move together covering both helps keep the injured eye and the object from moving and causing further injury.
- With both eyes covered, the first aid provider becomes the eyes if the victim.
- Protect the victim from further harm.]
- Keep them quiet, safe and reassure them with a calm, compassionate, and confident tone of voice.
- Seek immediate medical care.
- Do not try to remove the object.
- Do not allow the victim to rub or to apply pressure to the injured eye. Pressure can damage the delicate fibers of the nerve which connects the eye with the brain.

Chemical Burn

First Aid

- Immediately flood the eye with a large amount of water. Use a drinking fountain, faucet or garden hose.
- After you have finished washing the eye, seek immediate medical care.
- Do not place a cup over eye.
- Do not bandage eye.
- Call poison control help line at 1-800-222-1222 for treatment guidelines.

When caring for children

Do not allow the child to rub their eyes. All children with injuries should be evaluated, especially if they complain of any visual problems, scratching sensation or pain.

When caring for older persons

The risk of eye injury decline with age and is most often due to fall. If the victim is responsive, in addition to caring for the eye injury, the first aid provider should check the victim for hidden injuries that may have occurred because of the fall (physical assessment)

Prevention

- **Trades people (machinist, welders, metalworkers etc.) have 3 to 4 times more occupational eye injuries than the overall population. Males aged 17-24 are at the greatest risk. The consistent use of eye protection, during hazardous work activities-at home and work –could prevent many eye injuries.**

Nosebleeds

Most nosebleeds are not serious and can be handled easily by the first aid provider. Most stop on their own or with simple first aid. In rare cases, a nosebleed can lead to massive bleeding and even death. Nose bleeds effect person of all ages but are most common in younger children and older adults.

Sign and symptoms

- Bleeding from one nostril.
- Blood can drip down the throat or into the stomach, causing a victim to spit or vomit blood.
- Progressing shock

First Aid

- Use personal protective equipment
- Have the victim sit up straight with their head tilted forward
- Approach from the side or back so that the victim does not get blood on the first aid provider
- Pinch the nose with thumb and index finger for 10 minutes
- Have the victim spit out any blood the collect in the mouth.
- If the bleeding does not stop. Seek immediate medical care.
- Do not tilt the head back or have victim lie down. These actions may cause the victim to swallow blood and vomit.
- Do not pack gauze in the nose.

Applying ice to the victim's neck is not effective in controlling a nosebleed

If the victim is an infant under 12 months old, remember they have a smaller volume of blood - call EMS, if you cannot get bleeding stopped quickly.

Section 9 – Bone, Joint and Muscle Injuries

Injuries to Limbs

Bones, joint and muscles give the body shape, allow movement and protect vital internal organs. Injuries to the bones, joints and muscles of the limbs are common injuries that may be cared for by a first aid provider. Prompt recognition and first aid for limb injuries is important in reducing pain, preventing further injury and decreasing permanent damages. If you suspect a broken or dislocated bone call 911 as soon as possible.

Strains, Sprains, Dislocation

Fractures,

Look for DOTS

D – Deformity

O – Open wound

T – Tenderness

S – Swelling

If you suspect and injury to the head, neck, back stop your assessment and manual stabilization to the head and send someone to call 911 and wait for EMS.

Signs and symptoms – closed injury

- No open wound
- Sharp pain
- Swelling

- Deformity
- Tenderness
- Bruising
- Joint locked into position
- Progressing shock

Signs and symptoms – open injury

- Open wound, may have bone sticking out
- Bleeding
- Pain
- Swelling
- Deformity
- Progressing shock
- Substantial blood loss from open fractures is possible

First Aid For open or closed injury

- Assess, Alert and Attend to the CABs
- Use personal protective equipment
- If necessary, expose the injury by gently cutting away clothing
- If a bone is sticking out of the body, control bleeding by applying gentle pressure around it
- Cover open wounds with a sterile or clean dressing
- Do not remove shoes or boots unless there is severe bleeding from the foot.
- Apply ice to injury to reduce pain, bleeding, and swelling.

  - place a thin towel or cloth between the cold source and the skin.

- Limit application to 20 minutes or less.

- Comfort, calm, and reassure the victim.
- Do not straighten a painful, swollen, or deformed arm or leg.
- Do not push a bone back under the skin
- Do not allow the victim to put weight on a leg, ankle, or foot injury.

Sharp broken bone ends can cut tissue, muscle, blood vessels, and nerves when moved. First aid providers should assume all painful, swollen, or deformed injuries to a limb include broken bone ends.

Splinting Limbs

Splinting is the most common procedure for limiting movement.

Apply a splint only if:

• EMS personnel are delayed or not available (i.e., natural disaster, terrorist attack) and you can do so without causing further injury or pain.

• Before beginning, gather whatever splinting materials are available.

A variety used to improvise a splint materials can be:

• Soft: Towels, blankets, or pillows tied with bandaging materials or soft cloths.

• Rigid: Cardboard, wood, folded magazine, backpackers sleeping pad, etc.

Basic Splinting Guidelines

• Immobilize above and below the injury.

• Splint in the position found.

• Pad the splints where they touch any bony part of the body (helps prevent circulation problems.)

• After splinting, check frequently for swelling, paleness, or numbness. If present, loosen the splint.

Skill Practice # 6

Injured Limb - Perform these steps quickly

Emergency action steps

- Assess Scene. If the scene is not safe of at any time become unsafe. GET OUT!
- Assess Victim, victim is responsive? Identify yourself ask if it's okay to help, if the victim appears weak. Seriously ill. Injured, or is unresponsive.
- Alert EMS or Activate Emergency Action Plan
- Attend to the CABs ensure an open airway normal breathing, and control bleeding

1 Cover open wounds with a sterile dressing

- If a bone is sticking out of the body control bleeding by applying gentle pressure.

2 Apply ice or a cold pack to decrease pain, bleeding, and swelling

- To prevent cold injury, place a thin towel or cloth between the cold source and the skin
- Limit to application to 20 minutes or less.

3 Manually stabilize injured limb

- Gently place your hand above and below the injury site to limit movement and prevent further injury while awaiting EMS.

Skill Practice # 7
Splinting an injured or broken bone

Injured Limb and medical services are delayed - Perform these steps quickly

1 Emergency action steps

- Assess Scene. If the scene is not safe of at any time become unsafe. GET OUT!
- Assess Victim, victim is responsive? Identify yourself ask if it's okay to help, if the victim appears weak. Seriously ill. Injured, or is unresponsive.
- Alert EMS or Activate Emergency Action Plan
- Attend to the CABs ensure an open airway normal breathing, and control bleeding

2 Cover open wounds with a sterile dressing using your personal protective equipment

- If a bone is sticking out of the body - control bleeding by applying gentle pressure with your gauge bandages around the bone to control bleeding
- Apply ice or a cold pack to decrease pain, bleeding, and swelling
  To prevent cold injury, place a thin towel or cloth between the cold source and the skin, limit to application to 20 minutes or less.

Manually stabilize injured limb

- Gently place your hand above and below the injury site to limit movement and prevent further injury while awaiting EMS.

3 Splinting is the most common procedure for limiting movement.

Apply a splint only if: • EMS personnel are delayed or not available (i.e., natural disaster, terrorist attack) and you can do so without causing further injury or pain.
• Before beginning, gather whatever splinting materials are available.
A variety used to improvise a splint material can be:
• Soft: Towels, blankets, or pillows tied with bandaging materials or soft cloths.
• Rigid: Cardboard, wood, folded magazine, backpackers sleeping pad, etc.
Basic Splinting Guidelines
• Immobilize above and below the injury.
• Splint in the position found.
• Pad the splints where they touch any bony part of the body (helps prevent circulation problems.)
• After splinting, check frequently for swelling, paleness, or numbness. If present, loosen the splint.

Injuries to Muscles - Sprains or Strains

It is difficult to correctly diagnose and injury to underlying body tissue such as whether it is muscle or bone and it is always better to guard against making other injuries worst. Look for the DOTS if bone injury is suspected call EMS.

If there is no bone injury – muscle injuries can be treated to help remember how to treat a muscle injury the acronym RICE can help:

R – Rest

I – Ice pack– no more than 20 minutes

C – Compress with bandage

E – Elevation – keep injury above the heart to reduce swelling

Injuries to the Spine

Injuries to the spine can cause damage to the bones of the spine, the spinal cord, or to the tissues and blood vessels surrounding the spinal cord. Spinal cord injury can cause temporary or permanent paralysis.

The most important consideration in suspecting a spinal injury is determining the mechanism, or how the injury occurred, such as diving headfirst into shallow water. Suspect a spinal injury has occurred when the victim has been exposed to significant physical force such as in a motor vehicle or bicycle crash; or a fall from greater than standing height.

The primary goal of first aid for a suspected spinal injury is to keep the victim still in order to prevent further injury. It is best not to move the victim at all before medical help arrives unless his life is in danger.

Injuries to the Spine

Signs and Symptoms

• Altered mental status.

• Obvious injury to the neck, head, or back.

• Numbness, tingling, burning, or loss of sensation in the hands, fingers, feet, or toes.

• Spinal pain, pressure, or tenderness.

• Multiple injuries, including open or closed fractures.

• Weakness or paralysis in any part of the body.

• Loss of bladder or bowel control.

• Bullet or stab wound to the head, neck, or back.

First Aid

• Assess, Alert, and Attend the CABs.

• Tell responsive victim not to move.

• Place your hands on both sides of the victim's head to stabilize it.

• Keep the head, neck, and spine in line.

• Comfort, calm, and reassure.

• Do not ask the injured victim to move in order to try to find a pain response.

• Do not move the injured victim to test for a pain response.

• Do not move the injured victim to perform a physical assessment.

• Do not bend, twist, or lift injured victim's head or body.

• Do not move the injured victim before medical help arrives unless their life is in danger.

• Do not remove a helmet if a spinal injury is suspected.

If an unresponsive victim with a possible spinal injury is lying flat on his back but has debris, blood, or secretions in the mouth or you must leave him to get help, use the recovery position to protect the victim's airway.

When caring for children

Spinal injury in children is rare, but the risk is greatest when the child has multiple injuries or chest injuries. Distress and discomfort may make it difficult to restrict spinal motion in a child. The first aid provider should do his or her best to hold the child's head in the position in which it was found.

When caring for older persons

Loss of normal bone density, mass, and strength make older people more likely to fracture bones, including spinal bones. Older persons who have other medical problems that make them prone to falling (for example, stroke) may also be more vulnerable to spinal injury. The first aid provider should do his or her best to manually restrict the victim's head in the position in which it was found.

Pain and loss of function usually accompany a spinal injury, but the absence of pain does not mean that the victim has not been significantly injured. If you suspect a victim could possibly have a spinal injury, assume they do!

Skill Practice # 7

Injured Spine - Perform these steps quickly

Emergency action steps

- Assess Scene. If the scene is not safe of at any time become unsafe. GET OUT!
- Assess Victim, victim is responsive? Identify yourself ask if it's okay to help, if the victim appears weak. Seriously ill. Injured, or is unresponsive.
- Alert EMS or Activate Emergency Action Plan
- Attend to the CABs ensure an open airway normal breathing, and control bleeding

1 Manually stabilize suspected spinal injury

- Tell responsive victim not to move
- Place your hands on both sides of victim's head to stabilize it
- Keep head neck and spine in line
- Comfort, calm and reassure

2 Perfect airway

If victim is or becomes, unresponsive and has debris blood or secretions in the mouth, or you must leave to get help

- Use recovery position to protect the airway

Head Injury

A significant blow or force to the head can result in injury to the soft-tissue of the brain within the skull. The greatest danger in a closed head injury is the increase in pressure caused by bleeding, or swelling of the brain.

Increasing pressure will damage sensitive brain tissue. Surgical intervention is often the only treatment that can prevent significant injury or death.

An open injury with direct impact to the brain, such as a wound caused by a bullet, can also result in long-lasting functional impairment or death.

Signs and Symptoms

- Unresponsiveness.
- Confusion or sleepiness.
- Clear or bloody fluid draining from the nose, mouth, or ears.
- External bleeding/protruding brain matter.
- Facial bruise, swelling, or scalp wound.
- Nausea/vomiting.
- Seizures.
- Severe headache/stiff neck.
- Inability to move one or more limbs.
- Changes in pupil size or shape.

First Aid

- Assess, Alert, and Attend the CABs.
- If wound is bleeding, place an absorbent pad directly over the area.
- If the pad becomes soaked with blood, apply another one over it.
- Do not remove blood-soaked dressings.
- If you suspect a spinal injury, manually stabilize the head and neck.

• Do not move the victim unless it is necessary.

• Do not wash a head wound that is deep or has major bleeding.

• Do not remove a helmet if you suspect a serious head injury.

When caring for children

If a child begins to play or run immediately after getting a bump on the head, serious injury is unlikely. However, the child should be seen by a healthcare professional and closely watched for 24 hours after the incident. You should contact the child's doctor if the child vomits more than once or twice. Vomiting is more common in younger children and is less likely to be an urgent sign of danger than it is in an adult.

When caring for older persons

Injuries to the brain and skull due to falling are highest among people 65 years and older. First aid for older persons with an injury to the skull or brain is the same as for any victim.

Seizures/Convulsions

• Involuntary jerking may occur after a brain or skull injury.

• Protect the victim from hitting nearby objects.

• Do not try to stop the jerking movements in a seizure. Doing so can cause injury to the bones, joints, muscles, and soft tissue.

• Do not place an object in a seizure victim's mouth. Doing so is dangerous and may cause further injury.

Section 10 – Sudden Illness

Sudden Illness

In addition to injuries, a medical emergency can also be caused by illnesses that can suddenly become life-threatening.

Obtain a Patient History – the acronym SAMPLE can help:

S – Symptoms

A – Allergies

M – Medications

P – Past medical history

L – Last oral intake

E – Events leading up to problem

A responsive victim of sudden illness usually has associated signs and symptoms. If the victim is awake and talking, identify yourself and ask if it's okay to help. If the victim has serious warning signs and symptoms, alert EMS or activate your Emergency Action Plan immediately.

Serious signs and symptoms of illness that indicate an immediate need for EMS include:

• Abnormal tissue color, including blue, purple, gray, or very pale.

• Breathing difficulty or shortness of breath.

• Seizure, without a history of seizure.

• Pain, severe pressure, or discomfort in the chest.

• Temperature of 105°F or higher

• Appearing weak, seriously ill or in severe abdominal pain

Altered mental status

One important sign is a change in personality, behavior, or consciousness. An altered mental status can range from mild anxiety, to the inability to speak, or communicate all.

Many medical issues can cause an altered mental status, including heart problems, stroke, poisoning, overdose, diabetic problems, fever, head injury, infectious illness, low levels of oxygen in the brain, and seizures. The period of altered mental status may be brief or prolonged. An altered mental status is a warning sign of a serious problem.

Signs and symptoms in children that require medical attention within one hour:

• Sudden onset of blood-red or purple rash.

• Fever in any age child who looks more than mildly ill.

• Fever in a child less than 2 months (8 weeks) of age.

• A large volume of blood in the stool.

Specific Conditions

Asthma/Reactive Airway Disease

Asthma is a disease in which the air passages in the lungs become narrower from swelling and extra mucus. This limits airflow into and out of the lungs and causes wheezing and/or shortness of breath.

Signs and Symptoms

• Symptoms can be very mild to life threatening.

• Constant coughing, especially worse at night and early morning.

• Anxiety.

• Sudden onset of wheezing.

• Chest tightness.

• Shortness of breath.

• Extreme difficulty breathing.

• Bluish color to lips and face.

• Pounding heart.

• Sweating.

• Altered mental status.

First Aid

If the victim is unable to administer their prescribed medication (metered-dose inhaler or nebulizer) without assistance, the first aid provider should help administer it, and alert EMS if:

• Constant coughing.

• Difficulty breathing.

• Stooped body posture.

• Struggling or gasping.

• Trouble walking or talking.

• Victim stops activity and can't start again.

• Lips or fingernails are grey or blue.

• Comfort, calm, and reassure while awaiting EMS.

• No improvement 15-20 minutes after initial treatment with medication.

State laws, regulations, and occupational licensing requirements may prescribe specific practices, rules, standards, and other conditions for assisting with prescribed medications.

Nebulizer

A device that turns liquid medicine into a mist for inhaling.

• Put the medicine into the nebulizer cup.

• Assemble the nebulizer cup and mouthpiece.

• Connect the tubing to the air compressor and nebulizer cup.

• Turn on the air compressor.

• Take slow, deep breaths.

• If possible, hold each breath for 2-3 seconds to help the medicine get into the lungs.

• Continue until the nebulizer Child using nebulizer. cup is empty (about 10 minutes)

Metered Dose Inhaler

A device used to inhale a specific dose of medication as a fine spray or powder.

• Remove the cap and shake the inhaler.

• Hold the inhaler upright. Tilt the head back slightly and breathe out.

• Press down on the inhaler to release the medicine; start to breathe in slowly for 3 to 5 seconds.

• Hold each breath for 10 seconds to allow the medicine to go deeply into the lungs.

• Repeat as directed.

EMS Authority Inhaled Medications Training

The following will provide you with information on how to administer inhaled medications to children who are prescribed such medications for their respiratory needs. A parent and caregiver should communicate in order to share information regarding a child's asthma triggers (allergens, substances or activities that cause respiratory problems) and symptoms. Learn to recognize a child's earliest asthma symptoms, so the symptoms can be counteracted early.

WHAT TO DO WHEN A CHILD IS HAVING AN ASTHMA ATTACK

- Provide Rescue medication immediately. It is vital that rescue medication be kept close at hand because an asthma attack can quickly escalate. If the child is out on the playground, take the rescue medication to him and administer on site. Help the child use his prescribed inhaler or nebulizer the correct way and for the prescribed dose.
- A responsible adult must always remain with a child who is having an asthma attack; never leave the child alone.
- After administering the rescue medication, bring the child to a quiet place, out of the cold or extreme heat.
- Stay calm and reassure the child.
- If a child is still having trouble breathing 5-10 minutes after taking his prescribed reliever medication, then call 9-1-1.
- After rescue medication is provided, if you notice any unusual reactions from the medication, call 9-1-1 immediately.

WHAT TO DO AFTER A CHILD'S ASTHMA ATTACK HAS BEEN TREATED AND HAS SUBSIDED

- A child who has been given rescue medication for an asthma attack should be kept quiet and his activity level should be kept to a minimum.
- A child who has been treated for an asthma attack should also be closely supervised by a responsible adult.
- Record information about the attack in the child's daily log that will be shared with parents at the end of the day. Also, note the attack in the child's asthma care plan.
- Tell the parents about the attack and what medication was provided.

WHAT TO DO IN EMERGENCY CASES

Serious asthma symptoms that require you to call 9-1-1 immediately are:

- Child's wheeze, cough or shortness of breath worsens, even after medicines have had 5-10 minutes to work;
- Child's neck and chest are "sucked in" with each breath;
- Child has trouble talking or walking;
- Child is struggling to breathe, hunching over;
- Child's lips or fingernails are grey or blue;
- Child has an altered level of consciousness or confusion; or
- Child is experiencing asthma symptoms and has no rescue medication available at the day care home or facility.

Treatment:

1. Call 9-1-1.

2. Provide emergency first aid as appropriate for respiratory distress. This may require the administration of medication as directed by the child's physician.

3. Call the child's parents and physician to alert them that 9-1-1 has been activated, but do not leave the child alone to make the call.

   If a child in your care has a lung disease such as asthma and does not have rescue medication available at the child care facility, advocate for that child and explain to his/her parents or guardian that this type of medication must be provided each day the child is in day care.

PREVENTIVE MEASURES TO IMPROVE A CHILD'S ASTHMA SYMPTOMS

- Control molds, pollen, dust, dust mites, cockroaches, smoke from cigarettes, pipes, cigars, fireplace fires, strong odors, insect allergens and animal dander.
- Other triggers are paint, sprays, outdoor fires, agricultural burning, cleaning materials, chemicals, perfumes, outdoor pollution, cold, wind, and exercise.
- Follow a child's specific diet if the child has food allergies. Food allergies may cause asthmatic symptoms. Some foods that children may be allergic to are: milk, eggs, wheat, nuts, soy, seafood and legumes.
- Be sure the child has been taking adequate fluids.

RESPIRATORY CARE PLAN

The child's physician and parent/guardian should provide the child's asthma care plan or respiratory care plan. This type of plan should identify:

1. The child's specific known asthma triggers;

2. How to recognize the child's asthma symptoms and warning signs; this may include measuring a child's peak expiratory flow (how well a child can move air out of his lungs) with a peak flow meter. A peak flow meter is an important tool in monitoring a child's lung function. See page 111, "Using a Peak Flow Meter" and "Cleaning a Peak flow Meter." A child's peak flow should be measured and logged daily to map changes in his lung function. The peak flow meter should also be used when a child is having symptoms of breathing problems, in order to ascertain and record how serious the child's breathing problems are. The peak flow daily log or chart can assist the child's physician in adjusting the child's treatment plan. A child's doctor will instruct him in how to use the peak flow meter, how often to use it each day and how to log the peak flow readings. It is generally recommended to monitor peak flow in the morning when the child awakes;

3. Which medications to use routinely and on a schedule, and which to use as needed, at the earliest sign of symptoms - along with how, when, and the dosage for using each drug; and

4. Emergency information, including parent and physician phone numbers and insurance information.

Use a child's specific respiratory care plan to prevent and control asthma episodes for that child.

TYPES of ASTHMA MEDICATIONS

The general goals of asthma therapy are to:

1. Prevent chronic asthma symptoms and asthma flare-ups during day or night;

2. Maintain normal activity levels;

3. Have normal, or near-normal lung function; and

4. Have no, or minimal, side effects.

Asthma medications have three categories: rescuer/relievers (for immediate relief of an asthma attack), long-term relievers (do not work immediately), and controllers. Also, some of these medications must be mixed with a saline solution specific for the lungs.

RESCUER/RELIEVERS (also known as bronchodilators) these medications reduce the swelling and relax the walls of the airway to allow increased airflow. These medications are known as the rescuers, because they quickly open the airways and ease the spasms of the airways and should help the child breathe easier within 5-10 minutes. They reduce acute episodes of coughing and wheezing. Some examples of relievers are Albuterol, Proventil®, Ventolin®, Terbutaline, Metaproterenol, and Xopenex®.

LONG-TERM RELIEVERS (long acting bronchodilators)

Some reliever medications are not to be used for immediate relief of an acute asthma attack because they do not work quickly. One of these medications is Serevent®. This medication works over a period of twelve hours to reduce the swelling and relax the walls of the airways. Atrovent® is also a long-acting reliever. Atrovent® has a delayed reaction - it has an onset peak one hour after inhalation and it works over a period of six to eight hours.

CONTROLLERS (routine, scheduled preventive medicines) Controllers are asthma medications that reduce the swelling of the airways by keeping them from reacting to asthma triggers. These medications are typically given on a daily routine, to prevent asthma attacks.

Controllers will not relieve wheezing during an asthma attack. They prevent the swelling (inflammation) of the airway on a long-term basis. These medications must be taken regularly to work well. **During an asthma attack, the caregiver would deliver a rescue medication, not a controller medication (unless specified otherwise by a physician).** Some examples of controllers are Intal®, Tilade®, or the inhaled steroids such as Vanceril®, Flovent®, Azmacort®, Aerobid®, Beclovent®, and Kenelog®. Advair® is a relatively new medication that is a combination of a steroid (a controller) and long-term reliever, or bronchodilator. Advair® is not an immediate reliever; during an asthma attack, the caregiver would not use Advair® to relieve an acute asthma episode.

Oral controllers include Montelukast, Singulair®, Zafirlukast, and Accolate®. Singulair® and Accolate® are in tablet form.

It is very important to carefully follow the specific treatment plans for each child. Missed treatments may result in an asthma attack or increased difficulty in breathing. Only prescription medications should be administered. These medications come in different forms such as liquid, powder, or pill in order to meet the needs of different children.

If you are unsure of which type of medication to give the child during an asthma attack, call 9-1-1.

HOW TO IDENTIFY SIDE EFFECTS OF THE MEDICATIONS

Some common side effects of reliever medications (bronchodilators) are:

- Shaking;
- Jittering;
- Pounding heart;
- Nervousness; and/or
- Restlessness.

If the child develops a tremor (shaking) from the treatment, any play requiring hand-eye or foot-eye coordination may be frustrating. The tremor will wear off in 10-15 minutes.

Other side effects not listed above may occur in some children. If you notice any unusual reaction, contact the child's doctor and parents or 9-1-1.

Some precautions when using reliever medications (bronchodilators) are:

- If the child still has trouble breathing after using the medication - or the condition worsens, call 9-1-1 and child's physician immediately.
- Use medications only as directed. Do not increase the dose or how often it is given unless advised to do so by the child's physician. To do so may increase side effects.
- Keep this and all other medications out of the reach of children.

Some common side effects of controller asthma medications are:

- Dizziness
- Headache
- Nausea
- Over time, the use of controller medications can cause the voice to be hoarse.

Other side effects not listed above may occur in some children. If you notice any unusual reaction, contact the child's parents and doctor, or call 9-1-1.

Some precautions when using this type of asthma medication:

- Use only as directed.
- When taking inhaled steroids, the child must rinse his mouth with water to avoid a yeast infection in the mouth.

HOW MEDICATIONS ARE DELIVERED

A nebulizer delivers the liquid form of medication. Nebulized medications are generally safe, as the amount of medication the child is prescribed and actually receives is relatively small. This way of delivering the medication is relatively easy for all age groups. The medication can be either pre-mixed or require the user to dilute the medication with saline solution that is specifically manufactured for use in the lungs.

An inhaler will deliver the liquid or powder form of medication. With inhalers, the delivered doses vary from one puff to four puffs. A spacer, which is a tool that makes the inhaler's delivery more efficient, is strongly recommended to help deliver the medication. Spacers can be modified with a mask for delivery to an infant or small child. There are spacers available with a mask and a plastic connector that can be used together to deliver inhaled medication to young children. Spacers must be prescribed by a child's physician. Prescription inhalers are safe if used according to the physician's instructions.

PROPER STORAGE OF THE INHALED MEDICATION

Keep this and all other medications out of the reach of children.

Store the inhalers at room temperature. Heat or refrigeration may cause a change in the dosing of the medication, because the contents are delivered with a gas propellant. Liquid medications for the nebulizer should not be refrigerated, as doing so can make the medication unstable. If these types of medications will be transported away from the child care facility on field trips, care must be taken to keep the medicines temperate. Be careful not to leave inhalers or

nebulizer medication in a car. Extreme temperatures can cause the medication to become ineffective.

Liquid nebulizer doses are stored at room temperature, away from direct sunlight. Some medications must remain in foil pouches, and some must be used within a specific time once they are removed from their wrappers (for example Xopenex® and Advair®). With some liquid medications, the solution should be colorless. If the solution is not colorless, the medication should be discarded. Always read the package inserts for specific information and follow the instructions on proper storage of the medication. Contact the pharmacist for more information.

USE OF THE EQUIPMENT

For detailed information on how to use inhalers, nebulizers, spacers,

Peak flow meters and how to clean them, read pages 100-112.

Equipment Handout References:

"Use and Care of a Nebulizer"

– National Institutes of Health

The National Asthma Education

and Prevention Program (NAEPP)

"Operating your Nebulizer"

A) NEBULIZER EQUIPMENT

Refer to pages 101, 102, "Use and Care of a Nebulizer."

Refer to page 103 &104, "The Nebulizer Equipment."

B) INHALERS

Refer to page 105, "Steps for Using an Inhaler."

Refer to pages 106, "Using an Inhaler with a Spacer."

C) SPACER
Refer to page 106"Using an Inhaler with a Spacer"

D) PEAK FLOW METER
Refer to page 111, "Using a Peak Flow Meter"

HOW TO CLEAN THE EQUIPMENT

A) NEBULIZERS

Refer to pages 106 & 107, "Cleaning a Nebulizer."

B) INHALERS

Refer to page 108, "Care of an Inhaler."

C) SPACERS

Refer to page 107, "Cleaning a Spacer."

D) PEAK FLOW METERS

Refer to page 111, "Cleaning a Peak Flow Meter."

WHEN TO NOTIFY THE CHILD'S PARENTS AND PHYSICIAN

A) THE PARENT/LEGAL GUARDIAN

Inform the parent or guardian daily regarding the medications given to a child. A log for the administration of medication should be kept each day that medication is administered. The following information should be included in this log:

- The signs and symptoms the child had prior to needing medication;
- The time the medicine was administered;
- The amount of medication given;
- The type of medication given;
- Any side effects noted;
- If required, note the time the parent, physician, or 9-1-1 was notified;
- Were the signs and symptoms relieved after the medication was administered?
- Who gave the medication?

Also communicate to the parent any possible side effects that you have noticed (see the list provided), and share any possible warning signs you have seen. Common asthma warning signs include:

- Coughing;
- Wheezing;
- Feeling the chest is "tight";
- Difficulty breathing, shortness of breath;
- Sneezing;
- An itchy throat or chin;
- Not sleeping well;
- Pale skin;
- Stomachache/nausea;
- Loss of appetite;
- Raised shoulders;
- Tiredness; and /or
- Hoarseness

B) THE CHILD'S PHYSICIAN

If the child still has trouble breathing 5-10 minutes after using the medication - or if the condition worsens - **call 9-1-1**. Call 9-1-1 right away if the child's lips or fingernails are grey or blue. Then call the parent/guardian and physician to alert them that 9-1-1 has been called because the child is having a breathing emergency.

SUGGESTIONS FOR THE CHILD CARE PROVIDER

1. The child care provider should demonstrate the use of the nebulizer and inhaler equipment to the parent's/guardian's satisfaction; and
2. The child care provider should have a written plan from the child's doctor or parents regarding:

1. The type of medication, dosage, and frequency;
2. How to prepare the medication; and
3. How to use the child's specific equipment.

REFERENCES, BASIC

What Is Asthma?

Worksheet #1, NIH Teach Your Patients About Asthma - A Clinician's Guide, 10/92

Asthma in Children, ALA, 8/97

My Child's Asthma, a Caregiver's Guide, Krames, 1998

What Everyone Should Know about Asthma Control

NIH Practical Guide for the Diagnosis and Management of Asthma, 10/97

How to Control Things that Make Your Asthma Worse

NIH Practical Guide for the Diagnosis and Management of Asthma, 10/97

Asthma Trigger Control Plan

Worksheet #20, NIH Teach Your Patients About Asthma - A Clinician's Guide, 10/92

(2) Pennsylvania Chapter, AAP

Sample Asthma Action Plan

(1 & 2) NIH Expert Panel report 2, 7/97

(3) Pennsylvania Chapter, AAP

(4 & 5) Practical Guide for the Diagnosis and Management of Asthma, 10/97

(6 & 7) NIH Expert Panel report 2, 7/97

If Your Infant Has Asthma You Will Have to Take Extra Care

Worksheet #4, NIH Teach Your Patients About Asthma - A Clinician's Guide, 10/92

Warning Signs of Asthma Episodes

Worksheet #17, NIH Teach Your Patients About Asthma - A Clinician's Guide, 10/92

Summary of Steps to Manage Asthma Episodes

Worksheet # 19, NIH Teach Your Patients About Asthma - A Clinician's Guide, 10/92

Clues for Deciding to Go to School

Worksheet #26, NIH Teach Your Patients About Asthma - A Clinician's Guide, 10/92

How Asthma-Friendly Is Your School?

NIH, 9/99

REFERENCES, ADVANCED

Sources of Patient Education Programs and Materials

NIH, Expert Panel Report 2, 7/97

Self-Learning Module on Asthma Management in Child Care Settings

Pennsylvania Chapter of AAP

Asthma Delivery Devices

NIH, Expert Panel Report 2, 7/97

What You Need to Know About Medicines for Asthma

Worksheet #6, NIH Teach Your Patients About Asthma - A Clinician's Guide, 10/92

Age-Appropriate Asthma Self-Management Skills for Children 3-5

ALA of the East Bay, 3/99

USE AND CARE OF A NEBULIZER

A nebulizer is a device driven by a compressed air machine. It allows you to take asthma medicine in the form of a mist (wet aerosol). It consists of a cup, a mouthpiece attached to a T-shaped part or a mask, and thin, plastic tubing to connect to the compressed air machine. It is used mostly by three types of patients:

- Young children under age five years
- Patients who have problems using metered dose inhalers
- Patients with severe asthma.

A nebulizer helps make sure a patient gets the right amount of medicine. A routine for cleaning the nebulizer is important because an unclean nebulizer may cause an infection. A good cleaning routine keeps the nebulizer from clogging up and helps it last longer.

Directions for using the compressed air machine may vary (check the machine's directions), but generally the tubing has to be put into the outlet of the machine before it is turned on. It is important to keep the compressor clean and free of insects. It is also important to regularly change the compressor's filter, according to the manufacturer's instructions.

How to Use a Nebulizer

1. Select a comfortable area in your child care facility where the compressor can be placed and treatments can be given without interruption. A car seat or infant carrier can provide a comforting, secure place for the treatment.
2. Wash your hands thoroughly with warm water and soap.
3. If your medication must be mixed with saline solution, measure the correct amount of normal saline solution using a clean dropper and put it into the cup. Medications for the treatment may be pre-measured in unit dose vials or in bulk solution. For bulk solution, use the eye dropper or syringe for measuring the medication. These are usually provided with the medication. Go to Step 4. If your medicine is premixed, and does not need to be mixed with normal saline, then open the unit dose vial and deposit the medication into the nebulizer cup. You may also use saline specific for use in the lungs that comes in vials or cans. Follow the instructions on their containers for measuring these. Then, go to step 5.

4. Draw up the correct amount of medicine using a clean eyedropper or syringe and put it into the cup with the saline solution. Screw the nebulizer cap shut. Gently swirl the nebulizer to mix the medication and saline solution. (It is important to have an adequate amount of rescue medication available, in case the medication is spilled.)

5. Fasten the mouthpiece to the T-shaped part and then fasten this unit to the cup OR fasten the mask to the cup. If your nebulizer includes a medication saving reservoir tubing, attach this tubing to the opposite end of the T piece. Fasten the cup to the tubing. Fasten the other end of the tubing to the compressor. Plug the compressor into a three-prong grounded outlet, or use a battery-style compressor. For a child over the age of two years, it is more efficient to use a mouthpiece unit because it will deliver more medicine than a mask. However, children up to the age of five years may prefer using a mask.

6. Position the child in a comfortable position sitting up to allow for deep breathing. Put the mouthpiece in child's mouth. Have child seal his/her lips tightly around it OR place the mask on his/her face by securing it around the child's head.

7. Turn on the air compressor machine. Look for a steady mist coming from the nebulizer cup. If the mist does not come out of the nebulizer mouthpiece or mask, check to make sure the machine's filter cap is tightly secured. Also, make sure the machine's intake area is not blocked.

8. Tell child to take slow, deep breaths in through the mouth at the beginning of the treatment. Then, the child can continue the treatment breathing normally through the mouth. If a child is using a face mask, tell the child to breathe normally. A little bit of coughing is to be expected during a nebulizer treatment. You do not have to turn off the machine if the child is mildly coughing.

9. Continue until the medicine is gone from the cup (approximately 10 minutes). As the medicine disappears, there may be some left on the bottom of the nebulizer cup. Flick the cup gently with your finger to disperse the remaining medication.

10. Store the medicine as directed after each use.

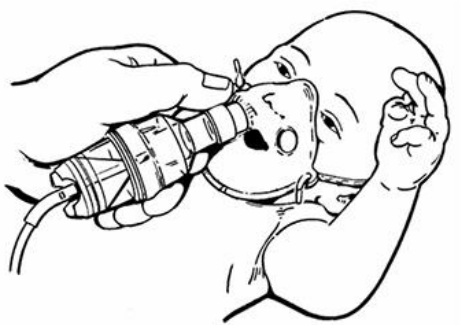
11. Nebulizers should not be shared. Keep each child's equipment separate.

NOTE: Blowing medication in front of the face without the mask or a mouth piece is **not** an efficient way to deliver the medication. Also, some children may need to be on regularly scheduled nebulizer treatments throughout the day. In these cases, it is important to have more than one nebulizer available so that clean and dry nebulizers can be used for each treatment.

<u>After the Treatment</u>

Turn the compressor off. Clean nebulizer equipment after each use

<u>THE NEBULIZER EQUIPMENT</u>



- Nebulizers are used to turn liquid medication into a mist so that it can be breathed in.
- Nebulizer therapy uses a prescribed drug.
- Nebulizer equipment may vary in appearance, although most models contain the following components.

Nebulizer

Nebulizer T-Piece

Mouth Piece

Cup + Mouthpiece

Mask & Nebulizer assembled for use

Nebulizer Machine

Nebulizer Tubing

Measuring Medication

Unit Dose Vial

Medication Dropper

Syringe

Two Types of Peak Flow Meters

NOTE: A peak flow meter is used by people with lung disease to measure lung function. Specifically, peak flow meters measure how well a person can move air through the airways in his lungs. Peak flow meters are used both by people who use nebulizers and inhalers.

STEPS FOR USING AN INHALER

Children and parents should demonstrate their inhaler technique at every doctor's visit, so the doctor can make sure the child is using his medication correctly.

1. Remove the cap and hold inhaler upright.
2. Shake the inhaler. (If you have a spacer and the type of inhaler that can be used with a spacer, go to page 13 for instructions.)
3. Tilt your head back slightly and breathe out slowly.
4. Position the inhaler in one of the following ways- (A or B is optimal, but C is acceptable for those who have difficulty with A or B.) C is required for breath-activated inhalers:

A. Open mouth with inhaler 1 to 2 inches away.

This technique is not as efficient as use with a spacer.

B. Use spacer/holder chamber (that is recommended especially for young children and for people using corticosteroids). This is the most efficient way to use this type of inhaler.

C. In the mouth. Do not use for corticosteroids. Using this method with corticosteroids will leave the medication on the tongue, possibly causing thrush, a yeast infection on the tongue. This technique is not as efficient as when a spacer is used. However, some inhalers must be used like this because they are breath- activated and

D. NOTE: Dry powder inhalers use a different delivery and inhalation technique. They dispense a fine dry powder, rather than a spray. To use a dry powder inhaler, it is important to close the mouth tightly around the mouthpiece of the inhaler and to inhale rapidly. You cannot use a spacer with this type of inhaler. This type of inhaler may also come in a diskus, which is

cannot be used with a spacer.	round, rather than a canister and inhaler.

5. Press down on the inhaler to release medication as child starts to breathe in slowly. With dry powder inhalers, you may have to click or slide a button or lever before sealing your mouth around the inhaler and taking a deep breath. You cannot use a spacer device with these types of inhalers.

6. Tell child to breath in slowly (3 to 5 seconds).

7. Tell child to hold his/her breath for 10 seconds to allow the medicine to reach deeply into his/her lungs. Tell the child to exhale.
8. Repeat puff as directed. If a child's doctor has prescribed two puffs, then wait between puffs for the amount of time the doctor has directed (usually 60 seconds) and take the second puff. Waiting one minute between puffs permits the second puff to penetrate the child's lungs better.

9. Spacers/holding chambers are useful for all patients. They are particularly recommended for young children and older adults and for use with inhaled corticosteroids.

Avoid common inhaler mistakes. Follow these inhaler tips:

- Tell child to exhale before pressing his/her inhaler.
- Tell child to inhale slowly through his/her mouth, not his/her nose.
- Press down on a child's inhaler at the start of inhalation (or within the first second of inhalation). Tell child to keep inhaling as you press down on the inhaler.
- Press the inhaler only once while the child is inhaling (one breath for each puff).
- Make sure child inhales evenly and deeply and holds the breath for ten seconds before exhaling.

NOTE: Other inhalers are becoming available in addition to those illustrated above. Different types of inhalers may require different techniques. Source: Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma. National Asthma Education and Prevention Program, National Heart, Lung, and Blood Institute, 1997.

USING AN INHALER WITH A SPACER

Unless an inhaler is used correctly, much of the medicine may end up on the child's tongue, on the back of his/her throat, or in the air. Use of a spacer, or holding chamber, can help this problem.

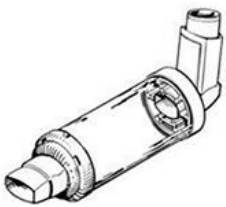
A spacer, or holding chamber, is a device that attaches to a metered dose inhaler (spacers are not used with dry powder inhalers such as Maxair® and Advair®). It holds the medicine in its chamber long enough for a child to inhale it in one or two slow deep breaths. When a child uses a spacer, he should breath in softly and slowly. If the spacer is being used incorrectly, it will whistle. If the spacer whistles, then the breath is too quick and hard and this means the medication is not going to be efficiently delivered. Teach the child to use the spacer without making it whistle. The spacer makes it easy to use the medicines the correct way (especially if the child is young or has a hard time using an inhaler). It helps a child not cough when using an inhaler. A spacer will also help prevent a child from getting a yeast infection (thrush) in his/her mouth when taking inhaled steroid medications (because the medication is being inhaled, rather than ending up on the tongue. However, a child should always rinse his mouth after using an inhaled steroid, even if it is used with a spacer.)

There are many models of spacers or holding chambers that can be purchased through a pharmacy or medical supply company. Ask a child's doctor about the different models. A prescription is needed to purchase a spacer.

How to Use a Spacer

1. Attach the inhaler to the spacer or holding chamber as explained by your doctor or by using the directions that come with the product.
2. Shake well.
3. Place the mouthpiece of the spacer in child's mouth and tell child to inhale slowly. (A face mask may be helpful for a young child).
4. Press the button on the inhaler. This will put one puff of the medication in the holding chamber. (#3 and #4 should be done simultaneously.)
5. Tell the child to hold his/her breath for a few seconds and then exhale.
6. If child's doctor has prescribed two puffs, wait between puffs for the amount of time he or she has directed (usually 60 seconds) and repeat steps 4 and 5.

CLEANING A SPACER



Spacer and Inhaler

Child using inhaler with spacer

After each use, rinse the spacer. To do this, remove the rubber seal in which you place the inhaler. Use warm water to rinse the inside of the spacer then rinse the rubber seal. Do not remove the mouthpiece since it is permanently attached. Allow the spacer to air dry completely before the next use. Do not use paper or lint towels to dry the inside of the spacer, because small particles that remain may be inhaled the next time the spacer is used.

Once a week, the spacer should be cleaned by using a cleaning solution made up of 1/3 part of distilled white vinegar and 2/3 parts water. Let the spacer soak in this solution for fifteen minutes and then rinse well and air dry completely before the next use.

CLEANING A NEBULIZER

Don't forget: Cleaning and disinfecting the nebulizer prevents infection. Cleaning also keeps the nebulizer from clogging up and helps it last longer.

After Each Use

1. Remove the mask or the mouthpiece and T-shaped part from the cup. Remove the tubing and set it aside. The tubing should not be washed or rinsed. Rinse the mask or mouthpiece, T-shaped part, and the eyedropper or syringe in warm running water for 30 seconds. Use distilled or sterile water for rinsing, if possible.

2. Shake off excess water. Air dry on a clean cloth or paper towel.

3. Put the mask or the mouthpiece and T-shaped part, cup, and tubing back together and connect the device to the compressed air machine. Run the machine for 10 to 20 seconds to make sure the inside of the nebulizer is dried. If the inside of the tubing has moisture in it, connect the tubing to the machine and run it until the moisture disappears.

4. Disconnect the tubing from the compressed air machine. Store the nebulizer parts and the tubing in a clean Ziploc plastic bag.

5. Place a cover over the compressed air machine.

Cleaning Once Every Day

1. Remove the mask or the mouthpiece and T-shaped part from the cup. Remove the tubing and set it aside. The tubing should not be washed or rinsed.

2. Wash the mask or the mouthpiece, T-shaped part, and the eyedropper or syringe - with a mild dishwashing soap and warm water or with a cleaning solution made up of 1/3 part distilled white vinegar and 2/3 parts water. Let the nebulizer pieces soak in this solution for fifteen minutes, then rinse well and air dry. Using this solution will not leave a residue like some dish soaps may.

   Note: Do not use dishwashing soap that is strongly scented, especially lemon-scented detergent. Doing so could cause the airways to be reactive the next time the nebulizer is used. If dishwashing soap is used, it should be one that rinses easily. Some dish soaps should not be used because they are so concentrated that they do not rinse well and can leave a residue.

3. Rinse under a strong stream of water for 30 seconds. Use distilled (or sterile) water if possible.

4. Shake off excess water. Air dry on a clean cloth or paper towel.

5. Put the mask or the mouthpiece and T-shaped part, cup, and tubing back together and connect the device to the compressed air machine. Run the machine for 10 to 20 seconds to make sure the inside of the nebulizer is dried.

6. Disconnect the tubing from the compressed air machine. Store the nebulizer parts and the tubing in a Ziploc plastic bag.

7. Place a cover over the compressed air machine.

Additional Cleaning

This cleaning should be done by a parent or guardian every other day. Scheduling cleaning on odd or even days may help a parent or guardian adhere to this cleaning schedule.

1. Remove the mask or the mouthpiece and T-shaped part from the cup. Remove the tubing and set it aside. The tubing should not be washed or rinsed. Wash the mask or the mouthpiece, T-shaped part, and the eyedropper or syringe - with a mild detergent dishwashing soap (a non-scented detergent is best) and warm water.

2. Rinse under a strong stream of water for 30 seconds.

3. Soak for 30 minutes in a solution that is one part distilled white vinegar and two parts distilled water. Throw out the vinegar water solution after use; do not reuse it.

4. Rinse the nebulizer parts and the eyedropper or syringe under warm running water for 1 minute. Use distilled or sterile water, if possible.

5. Shake off excess water. Air dry on a clean cloth or paper towel.

6. Put the mask or the mouthpiece and T-shaped parts, cup, and tubing back together and connect the device to the compressed air machine. Run the machine for 10 to 20 seconds to dry the inside of the nebulizer thoroughly.

7. Disconnect the tubing from the compressed air machine. Store the nebulizer parts and tubing in a Ziploc plastic bag.

8. Clean the surface of the compressed air machine with a well-wrung, soapy cloth or sponge. You could also use an alcohol or disinfectant wipe. NEVER PUT THE COMPRESSED AIR MACHINE IN WATER. Keep the compressor clean and free of insects.

9. Place a cover over the compressed air machine.

10. When the air filter in the compressor is grey in color, change to a new air filter. It is important to change the compressor filter regularly as the manufacturer instructs. Be sure the filter cap is secured after replacing the filter. If the filter cap or closure is left loose, the air cannot pass through to the tubing correctly, and the nebulizer will not work.

NOTE: Some new nebulizer parts may be put into a dishwasher for the thorough cleaning. Ask the manufacturer of the nebulizer whether this can be done with your model, and how often it can be done. Also, most nebulizers are not made to last indefinitely. Some nebulizers are not as efficient in delivering medication after several uses. Ask the child's doctor and the nebulizer manufacturer how long a nebulizer should last under regular use.

CARE OF AN INHALER

Cleaning

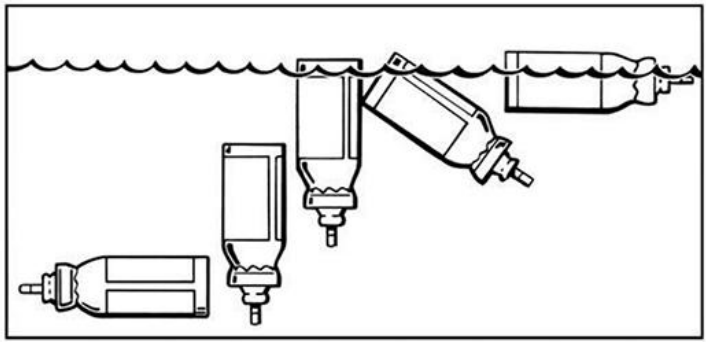
1. Clean the inhaler once a day. Remove the medication canister before cleaning the inhaler. Clean the plastic portion of the inhaler and plastic cap by rinsing it in warm running water. Let it air dry completely before you use it again. Have another inhaler to use while it is drying.

2. Twice a week, remove the canister and wash the plastic inhaler portion and cap with mild dishwashing soap (do not use scented detergent) and warm water. Rinse and air dry completely before putting the medication canister back inside.

Checking How Much Medicine Is Left in the Canister

1. If the canister is new, it is full.

2. An easy way to check the amount of medicine left in your metered dose inhaler is to place the canister in a container of water and observe the position it takes in the water.



Full ¾ Full ½ Full ¼ Full Empty

Nebulizer and inhaler artwork done by John Fitzgerald of Fitzgerald & Company, Sacramento, California.

USING A PEAK FLOW METER

Models vary, so read the instructions that come with a specific peak flow meter. Generally, peak flow meters are used similarly. Peak flow meters usually come with child-size plastic mouthpieces that fit into the mouth area of the peak flow meter so that it will fit into a child's mouth. The indicator should be at the bottom of the scale before beginning. Hold the peak flow meter upright, being careful not to block the back of the peak flow meter. The child should stand.

Have the child inhale as deeply as possible and place his mouth firmly around the mouthpiece, making sure that his lips form a tight seal around the mouthpiece. Tell the child to blow out as hard and fast as he can. This will cause the indicator to move up the scale. The final position of the indicator is the peak flow measurement. Take three readings (to repeat the procedure, slide the indicator back to the bottom of the scale.) Record the highest of the three. Record the date and time. If a child is having trouble breathing, do not take the peak flow reading at that time and instead assist the child with his rescue medication.

CLEANING A PEAK FLOW METER

Models vary, so read the instructions for cleaning that come with a specific peak flow meter. Generally, a peak flow meter can be washed and rinsed gently. It is not necessary to clean a

child's peak flow meter after each use. Once a week should be enough. Rinse the removable plastic mouth pieces (the ones provided for children) in warm water and air dry these thoroughly.

Once a week, the whole instrument may be cleaned with a mild dishwashing soap and rinsed in warm water. Shake out the water and let the instrument air dry before the next use.

Some models (check for specific instructions) may be placed in the top rack of dishwashers to be washed, but the water should be shaken out and the instrument allowed to air dry thoroughly before the next use.

These instruments should never be boiled.

Examine the peak flow meter periodically to check that it is functioning properly.

AMERICAN LUNG ASSOCIATION

OF CALIFORNIA

ORGANIZATIONS: The American Lung Association of California is a network of offices with four branches and eleven regional affiliates, each operating autonomously toward the broad goal of fighting lung disease. Volunteers for each region plan and implement programs for the unique needs of their own communities. This approach aligns the investment of local dollars with local priorities, and stimulates the development of a variety of effective strategies to fight lung disease. The California Thoracic Society (CTS) is the medical section of the American Lung Associations throughout California.

PREVENTION AND CONTROL: The American Lung Associations throughout California educate the public regarding smoking cessation and lung health promotion, work with occupational health and air pollution control agencies, and fund professional education and research. The American Lung Associations serve pediatric and adult lung patients by offering better breathing classes and asthma co-management skills, by educating families of patients, and by promoting access to quality care.

For more information on American Lung Association Programs, contact your local office listed below:

ALA of Central California

4948 N. Arthur

P.O. Box 9839

Fresno, CA 93794

559-222-4800

FAX 559-221-2081

e-mail: info@amerilungcencal.org

ALA of Los Angeles County

5858 Wilshire Blvd. #300

P.O. Box 36926

Los Angeles, CA 90036-0926

323-935-5864

FAX 323-935-1873

e-mail: gpayne@lalung.org

ALA of San Francisco & San Mateo Cos.

2171 Junipero Serra Blvd., Suite 720

Daly City, CA 94014

650-994-5864

FAX 650-994-4601

e-mail: lung@alasfsm.org

ALA of Central Coast

550 Camino El Estero, Suite 100

Monterey, CA 93940-3231

831-373-7306

FAX 831-373-5530

e-mail: admin@alaccoast.org

ALA of the East Bay

295 27th Street

Oakland, CA 94612

510-893-5474

FAX 510-893-9008

and

105 Astrid Drive

Pleasant Hill, CA 94523

925-935-0472

FAX 925-935-6530

e-mail: Eastbaylung@alac.org

ALA of THE INLAND COUNTIES

441 Mackay Drive

San Bernardino, CA 92408

909-884-5864

Fax: 909-884-6249

e-mail: lungassn@pe.net

ALA-Cal., Kern County Branch

306 Chester Ave

Bakersfield, CA 93301

ALA of Orange County

1570 E 17th Street

Santa Ana, CA 92705

714-835-5864

FAX 714-835-0169

e-mail: lcook@oclung.org

ALA-Cal., Redwood Empire Branch

115 Talbot Avenue

P.O. Box 1746

Santa Rosa, CA 95402-1746

707-527-5864

FAX 707-542-6111

e-mail: lungassn@neteze.com

ALA of Sacramento-Emigrant Trails

909 12th Street

Sacramento, CA 95814

916-444-5864

FAX 916-444-6661

e-mail: staff@saclung.org

ALA of San Diego-Imperial Counties

2750 Fourth Ave

P.O. Box 3879

San Diego, CA 92163-1879

619-297-3901

FAX 619-297-8402

e-mail: jan@lungsandiego.org

ALA of Santa Barbara-Ventura Counties

1510 San Andres St.

Santa Barbara, CA 93101

805-963-1426

FAX 805-962-2843

e-mail: dkp99@hotmail.com

ALA of Santa Clara-San Benito Counties

1469 Park Avenue

San Jose, CA 95126

408-998-5864

FAX 408-998-0578

e-mail: info@mail.lungsrus.org

ALA-Cal., Superior California Branch

1108 Sheridan, Suite B

Chico, CA 95926

530-345-5864

FAX 530-345-6035

e-mail: sara@chico.com

ALA-Cal., Valley Lode Branch

1231 West Robinhood Drive, Suite A-1

Stockton, CA 95207

209-478-1888

FAX 209-478-3453

e-mail: alacvl@aol.com

661-327-1601

FAX 661-327-7677

e-mail: laplank@sbcglobal.net

Contact Your Local American Lung Association: Call 1-800-LUNG-USA - or- on the Internet Http://lungusa.org; then click "local ALA" on left side (8th option down).

Severe Allergic Reaction

Anaphylaxis

Anaphylaxis is a sudden, severe allergic reaction that involves the whole body.

Swelling of the lips, eyelids, throat, and tongue can block the victim's airway. Anaphylaxis is fatal without prompt treatment!

It is critical for anyone with a history of anaphylaxis to keep epinephrine auto-injectors on hand at all times. Waiting for paramedics may significantly increase the risk of death.

Signs and Symptoms

Rapid onset of:

• Swelling of lips, eyelids, throat, and tongue.

• Extreme difficulty breathing.

• Coughing/wheezing.

• Altered mental status.

• Anxiety.

• Hives/itching.

• Nausea/vomiting.

• Abdominal pain/cramping.

• Diarrhea.

First Aid

• Assess, Alert, and Attend the CABs.

• If the victim carries a lifesaving epinephrine auto-injector prescribed by a physician, help them use it.

• If the victim is unable, the first aid provider should administer it.

• Comfort, calm, and reassure while awaiting EMS.

• The beneficial effects of epinephrine may be limited to a short time. Seek immediate medical attention. Take the used auto-injector box with you to the emergency room.

Auto-injectors

The most commonly prescribed epinephrine auto-injector is the EpiPen. To use an EpiPen auto-injector: (Read the instructions on the EpiPen carefully)

- **Remove the device from its storage tube.**
- **Grasp the device with the orange tip pointing away from you.**
- **Remove the safety cap, and hold the orange tip near the outer thigh.**
- **Firmly swing and jab the device at a right angle into the thigh until it clicks. The EpiPen is designed to work through clothing.**
- **Hold the device firmly against the thigh for about 3-5 seconds. If done correctly, the window on the EpiPen will show red.**
- **Pull device straight away from thigh and massage injection area for at least 10 seconds.**
- **Carefully place the used EpiPen auto-injector somewhere safe, such as pushing the needle into the ground, where an accidental needle stick will not occur. Inform EMS providers for help in proper disposal of the device.**

There are many different models and brands of auto injectors of the epinephrine medication. EpiPen, EpiPen Junior, Auvi-Q.

EpiPen® Auto-Injector 0.3mg (yellow label) removed from carrier tube

EpiPen Jr® Auto-Injector 0.15mg (green label) removed from carrier tube

EpiPen® Auto-Injector contains a single dose of 0.3 mg of epinephrine, appropriate for people weighing 66 pounds or more. EpiPen Jr® Auto-Injector contains 0.15 mg of epinephrine for children with severe allergies weighing 33 to 66 pounds. Your healthcare professional will carefully determine the appropriate dose of epinephrine for you or your child.

For the use of an EpiPen in the child care setting, the child care home or facility must have the following for a specific child: the child's prescription for the EpiPen, written permission signed by the child's parents or guardian for its use, and the child's specific EpiPen, as well as training by the parent, guardian, or the child's health care provider in how to administer the child's EpiPen.

Other causes of Breathing Problem in Child Care Croup & Epiglottitis

What is croup?

Croup is a very common respiratory problem. It is a swelling of the airway at the voice box (larynx) and windpipe (trachea) usually caused by a virus. The same virus that causes croup can cause other respiratory diseases like bronchitis, bronchiolitis and pneumonia. Croup is characterized by a harsh barking cough that can be scary for children and caregivers.

Who gets it and when?

Croup is most common in children under 3 years of age. Some children get croup as often as they have a respiratory illness. It can occur at any time of the year, but is most common between October and March.

What are the symptoms?

When a child has croup, the airway just below the vocal cords becomes narrow. This makes breathing noisy and difficult. Usually a child with croup has a low fever. Because the voice box contains the vocal cords, the main symptom of croup is a harsh cough that sounds like a seal barking, following a runny nose, cough and hoarseness. Croup usually gets worse at night with

a crowing sound while breathing. Croup may last one to seven days. Croup is usually managed by moisturizing the air.

If the child stops breathing or begins to turn blue, call Emergency Medical Services (9-1-1).

How is it spread?

The germs which cause croup are spread from person to person by contact with respiratory secretions (sneezing, coughing, saliva). Croup is about as contagious as the common cold. Children with croup or other respiratory infections should not have frequent contacts with infants less than six months of age.

Should the child stay home?

There is no reason to exclude the child from child care simply because of their harsh cough. However, you can separate the child from other children in the program if (1) a specified cause is identified that requires exclusion.

ATTENDANCE OF CHILDREN WITH UNSPECIFIED RESPIRATORY TRACT INFECTION

Children without fever who have mild symptoms associated with the common cold, sore throat, croup, bronchitis, rhinitis (runny nose), or otitis media (ear infection) shall not be denied admission to child care, sent home from child care, or separated from other children in the facility unless their illness is characterized by one or more of the following conditions:

a) The illness has a specified cause that requires exclusion,

b) The illness limits the child's comfortable participation in child care activities;

c) The illness results in a need for more care than the staff can provide without compromising the health and safety of other children.

Treatment with antibiotics shall not be required or otherwise encouraged as a condition for attendance of children with mild respiratory tract infections unless directed by local health authorities.

RATIONALE: The incidence of acute diseases of the respiratory tract, including the common cold, croup, bronchitis, pneumonia, and otitis media, is high in infants and young children, whether they are cared for at home or attend out-of-home facilities. Studies suggest that children who attend child care facilities have a significantly higher risk of upper and lower respiratory tract infections compared to children who are cared for at home and that infants and young children in child care have a higher incidence of these infections when they first begin to attend child care.

Children, 3 years of age and younger, experience an average of 5 to 10 respiratory tract infections each year, most of which are not severe and are caused by viruses that infect the respiratory tract. There is no evidence that the incidence of most acute diseases of the respiratory tract can be reduced among children in child care by any specific intervention other than routine sanitation and personal hygiene.

Exclusion of ill children from the facility has not been found of value in preventing common respiratory infections.

When compliance with environmental infection control practices is high in child care settings, a reduction in episodes of colds is possible. Most children with viral respiratory tract infections remain infectious for at least 5 to 8 days. Frequently, infected children are shedding viruses before they are obviously ill, and some infected children never become overtly ill. Therefore, excluding children with respiratory tract disease from child care is not likely to limit transmission of respiratory tract infections in the child care setting.

The inappropriate use of antibiotics is a serious public health problem leading to development of antibiotic resistance. Inappropriate antibiotic use in child care for mild respiratory tract infections is common even though these infections are often caused by viruses. Parents may attempt to pressure physicians into prescribing antibiotics for infections because they falsely believe that antibiotics will shorten the time when their children are excluded from child care.

COMMENTS: Uncontrolled coughing, difficult or rapid breathing, and wheezing (if associated with difficult breathing or if the child has no history of asthma) may represent severe illness or even a life-threatening condition. Exclusion in these cases is for the child's safety. The child should receive medical care before being allowed to return to the facility.

Epiglottitis

What is epiglottitis?

Epiglottitis is an acute life-threatening bacterial or viral infection that results in swelling and inflammation of the epiglottis. The epiglottis is an elastic cartilage structure at the root of the tongue that prevents food from entering the windpipe (trachea) when swallowing. This causes breathing problems, including stridor that can progressively worsen and may, ultimately, lead to airway obstruction. There is so much swelling that air cannot get in or out of the lungs resulting in a medical emergency.

What causes epiglottitis?

The primary cause of epiglottitis is a bacterial infection which is spread through the upper respiratory tract. The bacteria usually are Haemophilus influenzae type B (HIB). The reason some children develop the disease, while others do not, is not completely understood.

The Centers for Disease Control and Prevention recommends three to four doses of the HIB vaccine. Primary doses are given at 2 and 4 months of age or at 2, 4, and 6 months or age, based on the brand used by the physician office. A booster dose is given by 12 to15 months of age.

The HIB vaccine protects against these bacteria, therefore decreasing the chance of developing epiglottitis.

Facts about epiglottitis:

- The use of the HIB vaccine has significantly decreased the risk of developing the disease.
- The disease usually occurs in children 2 to 6 years of age, but has also occurred in adults.
- The disease can occur at any time; there is no one season that it is more prevalent.

What are the symptoms of epiglottitis?

The symptoms of epiglottitis are similar, regardless of the organism causing the inflammation. The following are the most common symptoms of epiglottitis. However, each child may experience symptoms differently. Symptoms may include:

- upper respiratory infections (In some children, symptoms of epiglottitis begin with symptoms of an upper respiratory infection.)
- quick onset of a very sore throat
- fever
- muffled voice
- no cough
- cyanosis (blue skin coloring)

As the disease worsens, the following symptoms may appear:

- drooling
- difficulty breathing
- unable to talk
- the child sits leaning forward
- the child keeps his/her mouth open

How is epiglottitis diagnosed?

Because of the severity of the disease and the need for immediate intervention, the diagnosis is usually made on physical appearance and a thorough medical history. At this point, if epiglottitis is suspected, the child will immediately be transferred to the hospital. As the disease continues, there is a chance of the child's entire airway becoming occluded (blocked), which can make the child stop breathing.

At the hospital, the following additional tests may be performed to confirm the diagnosis:

- x-ray of the neck - a diagnostic test which uses invisible electromagnetic energy beams to produce images of internal tissues, bones, and organs onto film.
- blood tests
- visualization of the airway - visualization of the airway, under optimal safety conditions by a surgeon in the operating room, may be necessary.
- blood culture - test to identify the bacteria
- throat culture - test to identify the bacteria

Treatment for epiglottitis:

The treatment for epiglottitis requires immediate emergency care to prevent complete airway occlusion. The child's airway will be closely monitored, and, if needed, the child's breathing will be assisted with machines.

Also, intravenous (IV) therapy with antibiotics will be started immediately. This will help treat the infection by the bacteria. Treatment may also include:

- steroid medication (to reduce airway swelling)
- intravenous (IV) fluids, until the child can swallow again
- humidified oxygen
- breathing tube

How well the child recovers from this disease is related to how quickly treatment begins in the hospital setting. Once the child is being monitored, the airway is safe, and antibiotics are started, the disease usually stops progressing within 24 hours. Complete recovery takes longer and depends on each child's condition.

Prevention of epiglottitis:

As mentioned above, epiglottitis caused by the bacteria HIB can be prevented with vaccines that start at the age of 2 months. Epiglottitis caused by other organisms cannot be prevented at this time, but are much less common.

If a child is diagnosed with epiglottitis, the child's family or other close contacts are usually treated with a medication called Rifampin, to prevent the disease in those people who might have been exposed.

Stroke

Stroke (Brain Attack)

A stoke occurs when the blood supply to part of the brain is suddenly interrupted, or when a blood vessel in the brain bursts and spills blood in to the surrounding tissue. A stroke can result in serious issues with a victim's ability to fell, move, or communicate; Damage can be limited by early bystander recognition and prompt professional medical treatment.

Sign and symptoms

May occur suddenly

- Numbness or weakness on one side of the body.
- Trouble speaking or understanding.
- Trouble seeing in one or both eyes.
- Loss of balance or co-ordination,
- Severe headache

First Aid

If you suspect a stroke may be occurring, ask the victim to:

- Smile
- Lift Both arms
- Say something simple "The sky is blue"

As the responder look for: **F.A.S.T.**

F- Face droop

A-Arm Drift

S-Speech difficulty

T-Time activate EMS

If the victim has trouble with these tasks:

- Alert EMS Immediately
- Position the Victim comfortably
- Comfort calm and reassure victim

Diabetes

Diabetes is a chronic disease that leads to an imbalance of blood sugar and insulin.

A medical emergency occurs when blood sugar becomes very high or very low. Regardless of the cause, first aid treatment is the same and can be lifesaving. It can be difficult to tell whether the person's blood sugar is very high or very low. When the first aid provider is uncertain, it is best to give sugar. The immediate effects of low blood sugar can be more harmful than those of high blood sugar. If very low blood sugar is the problem, recovery will usually occur in 10-15 minutes. If not, the problem may be very high blood sugar. Prompt medical treatment is required.

Signs and Symptoms

• Altered mental status.

• Anxiety/trembling.

• Victim may appear drunk.

• Drowsiness/difficulty waking up.

• Seizures.

• Unresponsiveness.

• A strong, fruity breath odor.

First Aid

- If a victim is a known diabetic and unable to swallow Assess, Alert, and Attend.

- If a victim is a known diabetic, responsive, and able to swallow, attempt to raise the blood sugar level as quickly as possible by giving the victim a packet of pure sugar to eat. If the victim has a commercially made glucose product, use it instead.

- If the victim does not begin to behave normally within about 15 minutes, call 9-1-1 or activate your emergency action plan.

- Comfort, calm, and reassure while awaiting EMS.

- Do not give anything by mouth if the victim is unresponsive, or semi-conscious and unable to swallow.

Type 1 Diabetes

Usually diagnosed in children and young adults the body does not produce insulin, a hormone that controls the level of sugar glucose in the blood. Cells cannot use glucose without insulin.

Type 2 Diabetes

Most common form – the body does not produce enough insulin or the cells ignore the insulin

Fainting and Seizures

Seizures are a sudden attack, usually related to excessive electrical activity in the brain.

Seizures can be caused by many medical issues, including epilepsy, head injury, brain tumor, meningitis, stroke, very low blood sugar, drug use, alcohol withdrawal, very high fever, and illness during pregnancy.

Most seizures happen without warning, last only a short time, and stop without any special treatment. Persons known to have frequent seizures do not usually need to go to the hospital, but even mild seizures should be reported to their doctor.

Signs and Symptoms - Simple Seizures

- Staring and unable to speak.

- Confusion.

• Wandering aimlessly.

• Strange behavior or sounds.

First Aid

• Guide the victim away from dangerous situations.

• Comfort, calm, and stay with the victim until fully recovered.

Signs and Symptoms - More Complex Seizures

• Sudden collapse to the ground.

• Twitching or shaking of body (convulsions.)

First Aid

• Assess, Alert, and Attend.

• Stay calm.

• Move objects away that victim may strike during the seizure and try to protect the persons head.

• Do not restrain the victim.

• Allow the seizure to take its course.

• Do not put anything in the victim's mouth, including your finger. There is no danger of the victim swallowing his/her tongue.

• When the seizure is over, place the victim in the recovery position.

• Provide privacy to minimize embarrassment.

It is important to alert EMS if you know or suspect that this is the first time the victim has had a seizure.

Fainting

• Assess, Alert, and Attend.

• Stay calm.

• If not already on the ground help down and lay flat on their back.

• Do not restrain the victim.

• Raise feet about 8 to 10 inches above their heart if you do not expect broken bones or a neck or back injury.

• Loosen any tight-fitting clothing

Poisoning

Poisoning is defined as any substance that causes injury, illness, or death when swallowed, contacted by skin, or inhaled.

Common poisons that are swallowed include prescription, illegal, and over-the-counter drugs; alcohol; household cleaning products; make-up; pesticides; paints solvents; contaminated foods; and poisonous plants. Many poisons can often be mistaken for common household items.

Common poisons that can be absorbed through the skin include corrosives, such as Alkalis, acids, and hydrocarbons; and poisonous plants, such as poison ivy, oak, sumac.

Common poisons that can be inhaled include natural gas; carbon monoxide; and harmful dusts, fogs, fumes, mists, gases, smokes, sprays or chemical vapors.

Signs and Symptoms

• Signs and symptoms of poisoning are wide-ranging and variable, and they can copy those of common illnesses.

First Aid

• If signs and symptoms appear serious, Assess, Alert, and Attend the CABs. Swallowed Poison

• Call the National Poison Help Number at 1-800-222-1222 to talk to a poison expert. Follow the treatment recommendations given.

• Do not induce vomiting, or give water, milk, to the victim unless you are advised to do so by poison control.

In child care setting do not use syrup of ipecac and activated charcoal, although used years ago Poison Control has deemed these substances inappropriate.

• Have all medicine bottles, containers, or samples of poisoning substance available for EMS.

If you think the substance may be dangerous to you or others inform the EMS operator.

Skin Contact

• Quickly remove victim's contaminated clothing.

• Rinse the skin with large amounts of tap water.

• Contact Poison Control or alert EMS.

Inhaled Poison

• Make sure it is safe to help. If so, get the victim to fresh air right away.

• Alert EMS.

Poisoning Facts:

Of the 2,395,582 human exposures to poison reported in the U.S. in 2003, the majority occurred at home (92.6 %.) The rest occurred in the workplace, including schools, health care facilities, restaurants, and other types of food service operations. Although most poisoning exposures are accidental, the vast majority of poisoning deaths (79%) were the result of intentional actions, primarily suicide, and drug abuse (or misuse.)

Emergencies during Pregnancy

Illnesses and problems that can occur during pregnancy that can put both mother and child in danger.

Signs and Symptoms

• Severe abdominal pain.

• Persistent vaginal bleeding.

• Gushing amniotic fluid.

• Sudden severe headache.

• Altered mental status.

• Seizure.

• Fainting/loss of consciousness.

First Aid

• Assess, Alert, and Attend.

- Contact EMS

• Have the woman assume the position that makes her most comfortable.

• If the woman is reluctant to discuss problems related to the pregnancy, respect her wishes.

• Help the victim maintain a normal temperature and do not let her become chilled or overheated.

• Comfort, calm, and reassure while awaiting EMS.

• For significant vaginal bleeding (use of more than two sanitary pads per hour), have the victim press a sanitary pad or towel to the area.

• Do not examine the vagina or place dressings inside the vagina.

If a woman, who is more than 3 to 4 months pregnant, feels faint, has signs and symptoms of shock, or becomes unresponsive, place her on her left side in the recovery position.

When lying face up, the baby puts pressure on a major vein that returns blood to the heart. Placing the woman on her left side reduces this pressure and provides the most blood flow to the mother and baby.

Section 11 – Heat- and Cold-Related Illnesses and Injuries

Heat Exhaustion and Heat Stroke

Extended exposure to hot, humid environment can overwhelm the body's ability to cool itself down. It is important to recognize and to treat the symptoms of heat illness early to prevent a victim from progressing to heat stroke.

The two main illnesses related to heat exposure are heat exhaustion and heat stroke.

Heat Exhaustion

Develops when the body encounters high temperatures it is not used to. It can look like many other common illnesses.

Signs and Symptoms Early

• Heavy sweating.

• Thirst.

• Minor muscle "twitches" that progress to painful cramping.

Later

• Pale, cool, and moist skin.

• Headache.

• Nausea/vomiting.

• Weak/dizziness.

• Feels faint or collapse.

First Aid

• Assess, Alert, and Attend the CABs.

• If responsive have the victim lie down in a shady cool place.

• Loosen or remove excess clothing.

• Give cool water to sip.

• Apply cool, wet cloths to the victim's skin.

• Use a fan to lower the body temperature.

• Place cold compresses on the victim's neck, groin, and armpits.

Heat Stroke

Heat stroke, where the body temperature is in excess of 105°F is a true, life-threatening medical emergency. Such a high body temperature can quickly cause permanent damage to the organs, including the brain and spinal cord.

Signs and Symptoms

• Decreasing mental status (confusion hallucinations, bizarre behavior.)

• Very warm, or even hot, skin temperature (heavy sweating may be present.)

• Seizure.

• Unconsciousness.

First Aid

• Assess, Alert, and Attend the CABs.

• Begin aggressive cooling with any resources available.

- Spray or pour water on the victim and fan him/her.

- Apply ice packs to the victim's neck, groin, and armpits and/or cover the victim with a wet sheet.

If unresponsive

• Place the victim on his or her side in the recovery position to protect the airway.

• Provide continuous cooling until EMS arrives. With rapid cooling and medical treatment, survival rate approaches 90%.

• Do not give the victim anything by mouth if vomiting or unconscious

When caring for children and older persons

Young children and the elderly with chronic diseases (or those who cannot get out of the heat) are at great risk for heat stroke and death. First Aid treatment is the same in all heat emergencies; cool the victim down!

Prevention

• When working in the heat, take rest periods in a cool environment and drink plenty of fluids.

• NEVER leave a child alone in a motor vehicle in the heat, even to run a quick errand.

The passenger compartment can quickly turn into a fatal oven.

Frostbite

The two main illnesses on the other end of the temperature spectrum, frostbite and hypothermia are the most dangerous cold-related conditions.

Frostbite develops when skin freezes. Body parts that are exposed to the cold, such as fingers, toes, earlobes, cheeks, and nose, are the most likely to be affected.

Signs and Symptoms Early

• Pins and needles sensation.

• Throbbing. Later

• Frozen (no feeling.)

• Hard, pale, cold, numb skin.

First Aid

If EMS or medical attention is available:

• Move the victim to a warmer place.

• Assess, Alert, and Attend the CABs.

• Remove any constricting jewelry and wet clothing.

• Place a sterile dressing between frostbitten fingers and toes.

• Wrap the frostbitten area with sterile dressings.

• Do not actively warm the affected area.

If EMS or medical attention is NOT available:

• Move the victim to a warmer place.

• Immerse the frostbitten area areas in warm water (not hot) for 20 to 30 minutes.

• Severe burning pain, swelling, and color changes may occur.

• Check and maintain the water temperature often.

• Do not re-warm if there is a chance refreezing may occur.

• Do not rub or massage the affected area.

• Do not disturb blisters on frostbitten skin.

• Do not give alcoholic beverages. They do not help and may be harmful.

Hypothermia

Hypothermia is when the body temperature has decreased to 95° F or less. Hypothermia is a true, life-threatening medical emergency.

The main risk factors for hypothermia include being older than 65, mental impairment, and the use of alcohol or drugs.

It is best to suspect and recognize hypothermia early. The chance for survival decreases as the condition progresses.

Signs and Symptoms Early

- Frostbite.
- Pale, cold skin.
- Weakness, loss of coordination.
- Altered mental status.
- Uncontrollable shivering.

Later

- No shivering.
- Slow (or absent) breathing or heartbeat.

First Aid

- Assess, Alert, and Attend the CABs.
- Get inside or out of the wind.
- Remove any wet, constricting clothes. Replace with dry.
- Cover with warm blankets.
- Cover the head and neck to help retain body heat.
- Place the victim near a heat source.
- Comfort, calm, and reassure until EMS arrives.

Prevention

All deaths from exposure to extreme cold are preventable. Early recognition of the signs and symptoms along with awareness of risk factors can help minimize both injury and death.

Adams Safety Training is an Approved Training Center for the American Heart Association, American Red Cross, Medic First Aid International, American Safety & Health Institute, and Emergency Care & Safety Institute in association with:

- **American Academy of Orthopedic Surgeons**
- **American College of Emergency Physicians**
- **American Academy of Pediatrics**

These guidelines were developed by the International Committee on Resuscitation (ILCOR) 2015 International Conference on Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care (ECG) Science with Treatment Recommendations, hosted by the American Heart Association.

The National First Aid Science Advisory Board co-founded by the American Red Cross and American Heart Association~ Inc., and a contributor to the 2015Consensus of First Aid Science and Recommendations.

These CPR and AED guidelines are based upon the following science, treatment recommendations and guidelines:

• 2015 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations hosted by the American Heart Association in Dallas, Texas, 2015 International Liaison Committee on Resuscitation, American Heart Association, Inc. and European Resuscitation Council.

• 2015 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation 2015 American Heart Association, Inc.

AHA & ARC First Aid guidelines are based on the following standards:

ASTM Standard "Standard Guideline Defining the Performance of First Aid Providers in Occupational Settings"; 2015; ASTM International

These guidelines meet the requirements for:

California EMSA Emergency Medical Services Authority

U.S. Department of Homeland Security

United States Coast Guard

U.S. Department of Labor; Mine Safety and Health Administration

California OSHA requirements

U.S. Department of Labor; Occupational Safety & Health Administration

U.S. National Guidelines for First Aid Training in Occupational Settings

California Teaching Credentials

Fitness Instructors and Employee

Boy Scout and Girl Scout of America

Sports and Coaching Requirements

First Aid Kit:

The program has at least one fully equipped, readily available first aid kit. The rater will need to ask if and where there is a first aid kit and/or emergency disaster kit/backpack. Additionally, the contents of the kit(s) need to be examined, and the kit and/or the kit in combination with the disaster kit/backpack must be fully equipped—items cannot be placed haphazard (for example, scattered in drawers, cabinets, etc.). The kit(s) must be in the classroom and/or immediately accessible. The kit should contain at least the following items (as recommended by California State licensing regulations) to be rated "C":

1. Inspect First Aid Kit monthly
2. Replace and refill-expired items
3. Replace and refill used items after every use.

• current edition of a first-aid manual

- Poison control telephone number in CA, 1-800-222-1212; Emergency contact #'s for staff and families of children

• sterile first-aid dressings

• bandages or roller bandages

• adhesive tape

• scissors

• tweezers

• thermometer with disposable covers

• antiseptic solution

• disposable nonporous gloves

- Epinephrine auto-injectors, if prescribed for specific children (if child with severe allergy is in care). Only for children with a prescription.
- Be sure to keep written instructions form the child's doctor for use with the medication
- List of (extra if possible) prescriptions and medications

• a non-glass thermometer to measure a child's temperature

• bandage tape

• sterile gauze pads

• flexible roller gauze

• triangular bandages

• safety pins

• eye dressing

• pen/pencil and note pad

• cold pack

• Cell phone and extra battery (if possible)

• water – multiple bottles

•small plastic or metal splints

• liquid soap

• adhesive strip bandages, plastic bags for cloths, gauze

- Barrier CPR mask
- Cold pack
- Eye wash
- Flashlight with Extra Batteries
- Blankets (in bag or nearby)

Emergency Action plan Instruction and Emergency Preparation

Best Practices for Various Types of Emergencies

It is important to have a disaster plan with policies and procedures in place before an event occurs. A good disaster plan can be adapted to any emergency situation. Childcare providers will need to learn how to prepare and respond to a variety of possible situations, including:

- fires
- earthquakes
- explosions
- floods
- blizzards
- gun violence
- car or bus accident
- choking
- medical emergencies
- hurricanes
- terrorist alerts: orange/red

Emergency Preparedness

WHY IS EMERGENCY PREPAREDNESS IMPORTANT?

Emergencies can happen anytime and anywhere, despite our best efforts to reduce risks. Natural disasters, accidents, medical emergencies, or even intentional acts of violence can all occur during the hours that childcare programs are providing care to groups of children. In addition, young children are particularly vulnerable during times of disaster and confusion. For these reasons, licensed childcare programs are required by law to have policies, procedures and plans in place to minimize confusion and trauma if and when disaster strikes. The Childcare facilitates the development of these policies and procedures. The difference between being able to cope well or being paralyzed by an emergency, crisis or disaster depends upon level of preparedness and on having necessary supplies on hand. Busy childcare programs may not make preparedness a priority due to lack of time, lack of funds, or the belief "it won't happen here." The Childcare can help childcare providers understand the importance of emergency preparedness and can demystify the process by assisting with the assessment procedures and documentation systems required

What the Childcare Centers needs to know

Why Young Children Are at Risk

In times of crisis, young children do not have the capacity to make judgments and decisions on their own. When events occur quickly, they may not be able to understand what is happening and what they need to do Children look to adults/caregivers for information, protection and reassurance. When the responsible adults are involved in emergency tasks, children may feel disoriented and afraid. A confused child may hide inappropriately, or run from a safe place into

danger. Children with special needs will require special attention in times of disaster. For example, children with impaired mobility will need assistance during evacuations. Children with special health care needs may have essential equipment or medications that must accompany them. It is critical that the disaster preparedness
plan have special provisions, including the assignment of staff, to assist these children in the event of an emergency.

Legal Requirements and Their Implications for Childcare Providers

California Community Care Licensing regulations require all Childcare programs, both child care centers and family child care homes, to have a written disaster plan (State of California, Health and Human Services, Department of Social Services, 2002). Community Care Licensing Form LIC610 – *Disaster Emergency Plan for Child Care Centers,* and Form LIC610A – *Disaster Emergency Plan for Family Child Care Home*, which are available from Community Care Licensing and are also included in the Handouts section of this module (*Handout: Emergency Disaster Plan for Child Care Centers* and *Handout: Emergency Disaster Plan for Family Child Care Homes*), fulfill this requirement. A completed version of the appropriate forms should be on file at every licensed Childcare program.
In addition, regulations stipulate that child care licensees must train both staff *and* children about
their duties and responsibilities under a variety of emergency situations, including fire, natural disasters, and any other circumstances which might force the program's evacuation and relocation. Programs are required by law to perform and document disaster drills *at least* every six months.

Disaster Preparedness Drills

• Conduct a disaster risk assessment to identify hazards in the Child Care Center. Prepare a plan to
address these hazards. This could be anything from earthquakes to community violence to a medical emergency.

• Form an emergency preparedness team that is responsible for an emergency preparedness plan. The plan will include policies, practices, training, resources, practice drills and record keeping.

• Diagram the building the Child Care Center is onsite, and surrounding area. Include floor plans that show two alternative evacuation routes from each classroom and from each building, two property access roads for emergency vehicles, two post emergency meeting places off site, the shut off valves for water, gas, and electricity, the location of fire extinguishers, hydrants and emergency and first aid kits. Note any property hazards that may interfere with evacuation or emergency vehicles. (Use Community Care Licensing Form LIC 999).

• Post a copy of the evacuation route, emergency plans and emergency phone numbers in every
room.

• Establish annual training for staff, and for each new staff
:

1. on emergency procedures:
2. lost or missing children
3. suspected abuse
4. injuries or illness requiring medical or dental care
5. first aid procedures
6. disaster preparedness
7. evacuation procedures
8. use of a fire extinguisher
9. children's disaster response

• Keep up-to-date emergency contact information for children and staff (update every 6 months).

• Keep daily attendance record and make sure attendance is taken during evacuation.

• Practice emergency drills every month (although California regulations only require a fire drill every six months). The more children practice drills, the more compliant they will be during an emergency. Hold drills at different times of the day, from different exits, during varied activities including naps. Discuss drills afterward to explore any concerns that need to be remedied.

• Plan an announced, well thought out fire drill early in the school year so children and teachers
can be well-prepared in a relaxed atmosphere.

• Prepare children for emergency procedures by discussing what to do when they hear the alarm.
Practice Stop, Drop, and Roll fire prevention; practice Duck, Cover, and Hold for earthquake preparedness and community violence; and practice crawling out of the building on hands and knees in case of smoke-filled environments, stories and dramatic play can reinforce what is learned in a drill. Children react calmly when they are prepared, and when adults who are caring for them also act calmly.

• Make sure the Child Care Center has the proper evacuation equipment for non-ambulatory children. Emergency evacuation cribs with reinforced wheels are available from most early education equipment suppliers.

• Maintain logs to track the frequency of emergency drills. Information should include the date, type of drill, amount of time to complete drill and any concerns to be addressed.

Steps in an Emergency Fire Drill

• Remain calm.
• Sound alarm or signal that will alert everyone in the building.

- Evacuate using exit routes or alternatives marked on diagram of plan.
- Eliminate drafts: close all doors and windows on the way out.
- Take a head count, compare it to the roster to make sure everyone is out of the building.
- Call the fire department after leaving the building.

How to Use a Fire Extinguisher

- Stand back about 8 feet.
- Aim at the base of the fire (not flames or smoke).
- Squeeze or press the lever while sweeping from the sides to the middle of the fire.

Earthquake Preparedness

Most Californians live near an active earthquake fault. Being prepared for an earthquake can prevent
injuries. Child Care programs are required by Community Care Licensing to complete an earthquake preparedness checklist (see *Handout: Earthquake Preparedness Checklist*) as an attachment to the Emergency Disaster Plan (LIC 610, 610A) (State of California, 2002). It is also important to prepare children for earthquakes (see *Handout: Tips for Preparing Children*).

An earthquake preparedness checklist includes:

- Eliminating potential hazards in classrooms and throughout the facility:
  1. Make sure heavy objects will not fall from high shelves.
  2. Secure cabinets with child safety latches.
  3. Secure and latch filing cabinets.
  4. Bolt bookcases to wall studs.
  5. Secure water heater to wall.

- Establishing a response plan:
  1. Teach children about earthquakes and what to do.
  2. Practice duck and cover drills.
  3. Post, or make available to parents, copies of the school earthquake safety plan.

- Preparing an emergency kit for the program.

Security Issues

It is crucial for a Child care program to have policies and procedures in place about security issues to protect children from being lost or missing (e.g., authorized adults to drop off and pick up children). To minimize risk, Child Care Center should:

- Keep daily rosters of children's attendance including the name of the person signing the child in and out. Community Care Licensing requires that anyone who drops off or picks up a child from the center must sign his or her full name and record the time of day the child is dropped off or picked up (State of California, 2002).

• Maintain a record (including names, telephone numbers and addresses) of authorized persons for child pick up and drop off.

• Be aware of any registered sex offenders living in the neighborhood. In California, Megan's Law has made it possible to access information and addresses for registered offenders (see Web site at www.meganslaw.ca.gov).

• Be prepared to notify law enforcement or family members if a parent or guardian comes to pick up their child while inebriated or under the influence of drugs. If staff is concerned that the parent poses a danger to the child, staff can call another authorized adult to come pick up the child. (See *Handout: Child Care Centers Self-Assessment Guide: How to Make your Child Care Center a Safer Place for Children*). If a child is missing from the center or was inadvertently picked up by a non-authorized adult, act immediately:

• Perform a search of the Center and immediate surrounding area including places a child may crawl or hide.

• Notify local law enforcement agency.

• Provide the child's name, date of birth, height, weight, and other unique identifiers as well as what clothes the child was wearing.

• Notify parents or guardians.

• Request that the child's name and identifying information be immediately entered into the National Crime Information Center Missing Person File and the local Amber Alert system.

Helping Children and Adults Cope with Trauma
Experiencing an emergency situation or traumatic event can cause anxiety and stress among children, parents, and Child care staff. It is important for Child care providers to recognize the symptoms of trauma and know how to help children and adults cope (Project Cope, 2001). Possible symptoms of trauma including the following:

For Children
• withdrawn behavior
• helplessness
• loss of verbal skills
• loss of toileting skills
• depression
• fear
• disrupted sleep
• acting out
• difficulty separating from parents
• clinginess

For Adults
- withdrawal or depression
- feelings of inadequacy
- difficulty concentrating
- slowness to respond
- substance abuse
- psychosomatic symptoms

Ways to Help
- provide a safe place
- reassure children that they are safe and protected
- find out what children are thinking and feeling
- limit further exposure to trauma
- be aware of mental health resources available for referrals

WHAT THE CHILDCARE CENTERS NEEDS TO DO

Review All Documentation
Look at policies, plans, procedures, personnel files, and all logs of emergency-related activities. Also, review Emergency Prevention/Poisons, for emergency preparedness items to assess. At minimum, check for these details:

- Does the plan designate a staff person as the leader during an emergency?
- Does the plan describe how the program will account for all children and staff during an emergency or evacuation?
- Does the plan identify evacuation and relocation points?
- Does the plan describe arrangements for children with special needs?
- Is there documentation of emergency contact information for parents or alternate contacts?
- Does the plan describe transportation methods for infants/toddlers?
- Does the plan include documented permission for emergency medical care if needed?
- Does the plan identify an emergency shelter location, in case of need?
- Are personnel files up-to-date, including current basic first aid and CPR certifications, and have all staff completed training in prevention of choking and drowning?
- Does the program include documentation of regular and effective emergency drills?

Review Supplies
Evaluate emergency kit contents for a three-day supply of fresh water, food, a battery powered radio, flashlight and extra batteries, plastic garbage bags and toilet paper, diapers and wipes, blankets, any prescription and over the-counter medications, map of area for evacuating and locating shelters, copies of class lists and Emergency Cards for each child and staff member, and first aid kit. Review expiration dates as appropriate. Set up a monitoring system to ensure periodic replacement

of outdated or expired supplies. For a complete supply list, see the American Red Cross Web site at www.redcross.org/disaster/masters/supply.html.

Educate Staff, Volunteers and Parents on Emergency Preparedness and Response

Issues to cover include:
• appropriate quantities of emergency preparedness supplies
• self-monitoring activities, such as conducting regular checks for supplies, testing of smoke detectors and fire extinguishers, evacuation drills, etc.
• familiarity with documented policies, plans and procedures (see *Handout: Outline of Emergency Procedures*)
• how to educate children and families about emergencies/disasters
• community risk for earthquake, flood, hurricane, or other natural disasters
• first aid for trauma, bleeding and burns
• components of comfort kits and emergency backpacks for children
• modifications to the Childcare environment to reduce or eliminate hazards, such as fastening of furniture/ water heaters to wall

Assist Childcare Providers in Educating Children About Emergency Preparedness

Teaching young children what to do during a disaster can help children protect themselves. Some of the self-protective behaviors that can be taught are:
• to duck and cover, and hold in case of an earthquake
• to crawl along the ground to avoid smoke inhalation in case of fire
• to stay away from windows during tornadoes

Provide Educational Materials

Child care center will benefit from materials such as posters, fact sheets, books or videos on any of these topics:
• burn prevention and how to stop, drop and roll • regular maintenance of smoke detectors
• proper use of fire extinguishers
• location of gas valves and how to shut them off
• power surges and electrical fires
• hidden hazards in everyday items such as sinks, toilets, windows and appliances, with strategies to minimize risks

Other Sources

Earthquake Preparedness Checklist. California Department of Social Services, Community Care Licensing
Division.
Situations that Require Medical Attention Right Away. CFOC Appendix N.
Form LIC610 – Emergency Disaster Plan for Child Care Centers. California Department of Social Services,
Community Care Licensing Division.
Form LIC610A – Emergency Disaster Plan for Family Child Care Homes. California Department of Social
Services, Community Care Licensing Division.
Tips for Preparing Children. Governor's Office of Emergency Services. Retrieved from www.oes.ca.gov/
Disaster Planning – A Self-Assessment Guide for Child Care Centers and Family Child Care Homes. California
Department of Social Services, Community Care Licensing Division, Child Care Advocate Program
(1999).
How to Make Your Child Care Center a Safer Place for Children. California Department of Social Services,
Community Care Licensing Division, Child Care Advocate Program (2004).
http://ccl.dss.cahwnet.
gov/Res/pdf/HowtoMakeChildCareCenterSafe.pdf

EMERGENCY PREPAREDNESS

Disasters and trauma

After experiencing a disaster—whether it is a flood, earthquake, fire, hurricane or bombing—children may react in ways that are difficult to understand. Even if you or your child were not physically injured, the emotional response can be strong. They may act clingy, irritable or distant, and although they are very young and do not seem to understand what is going on, they are affected as much as adults. Adult fears and anxieties are communicated to children in many ways. The experience is more difficult for them, as they do not understand the connection between the disaster and all the upheaval that follows. They need reassurance that everything is all right. There is a wide range of "normal" reactions for children following a disaster, most of which can be handled with extra support at home, child care and school. In some cases, professional intervention may be needed, despite everyone's best efforts. Early intervention can help a child avoid more severe problems.

Message to parents

Some ways to provide reassurance after a disaster are:

• Try to remain calm.

• Remember the effect and anxiety produced by watching television coverage or listening to the radio. Keep

TV/radio/adult conversations about the disaster at a minimum around young children.
• Spend extra time being close to your child(ren).
• Answer all questions as honestly and simply as possible. Be prepared to answer the same questions over and over. Children need reassurance to master their fears.
• Spend extra time with your child at bedtime—soothing and relaxing time—talking, reading or singing quietly.
• Spend extra time with your child when bringing them to child care—they may be afraid you will not come back.
• Try to return to a normal routine as soon as possible to restore a sense of normalcy and security.
• Don't promise there won't be another disaster. Instead, encourage children to talk about their fears and what they can do to help in case of disaster. Tell them you will do everything you can to keep them safe.
• Be patient and understanding if your child is having difficulties.
• Never use threats. Saying, "If you don't behave an earthquake will swallow you up," will only add to the fear and not help your child behave more acceptably.
• Consider how you and your child can help. Children are better able to regain their sense of security if they can help in some way.
• Share your concerns with your child's teacher or child care provider. Consider assistance from professionals trained to work with disaster victims.

Message to child care providers
You can be a support and resource to parents by helping them understand behavioral and emotional responses. Be sensitive to how parents feel when they are separated from their children in a disaster. It may be very helpful for parents, children and you to take some extra time when dropping off children in the morning. A group meeting to reassure parents, discuss your response to their children's reactions, and review your emergency plan will help everyone feel more secure. Help children cope by reenacting how the disaster felt and talking about their fears so they can master them. Talk about being afraid, and practice what you will do the next time a disaster strikes. Because young children think the world revolves around them, children may need reassurance that they did not cause the disaster. Consider referring a family for professional help if any of the behaviors on the following page persists two to four weeks after the disaster. Children who have lost family members or friends, or who were physically injured or felt they were in life-threatening danger, are at special risk for emotional disturbance. Children who have been in previous disasters or who are involved in a family crisis may also have more difficulty coping.

Young Children and Disasters
Health & Safety Notes California Childcare Health Program

Typical Reactions of Children Following Disaster Children Ages 1 to 5

Children in this age group are particularly vulnerable to changes in their routines and disruption of their environments. Dependent on family members for comfort, they may be affected as much by the reactions of family members as by the disaster. Focus on reestablishing

comforting routines, providing opportunity for nonverbal and verbal expression of feelings, and reassurance.

- Nervousness
- Irritability
- Disobedience
- Hyperactivity
- Tics
- Speech difficulties
- Anxiety about separation from parents
- Bedwetting
- Thumb sucking
- Fear of darkness
- Fear of animals
- Fear of "monsters"
- Fear of strangers

Regressive Reactions Emotional/Behavioral Reactions

- Shorter attention span
- Aggressive behavior
- Exaggeration or distortion of disaster experience
- Repetitive talking about experiences
- Exaggeration of behavior problems
- Loss of appetite
- Overeating
- Indigestion
- Vomiting
- Bowel or bladder problems
- Sleep disorders and nightmares
- Give additional verbal assurance and ample physical comforting.
- Provide comforting bedtime routines.
- Permit the child to sleep in the parents' room on a temporary basis.
- Encourage expression of emotions through play activities including drawing, dramatic play, or telling stories about the experience.
- Resume normal routines as soon as possible.

Physiological Reactions How to Help Children Ages 5 to 11

Regressive behaviors are especially common in this age group. Children may become more withdrawn or more aggressive. They might be particularly affected by the loss of prized objects or pets. Encourage verbalization and play enactment of their experiences. While routines might be temporarily relaxed, the goal should be to resume normal routines as soon possible.

- School phobia
- Withdrawal from play group and friends
- Withdrawal from family contacts
- Irritability
- Disobedience
- Fear of wind, rain, etc.

• Increased competition with younger siblings
• Excessive clinging
• Crying or whimpering
• Wanting to be fed or dressed
• Engaging in habits they had previously given up
• Inability to concentrate and drop in level of school achievement
• Aggressive behavior
• Repetitive talking about their experiences
• Sadness over losses
• Overreaction to crises or changes in the environment
• Headaches
• Complaints of visual or hearing problems
• Persistent itching and scratching
• Nausea
• Sleep disturbance, nightmares, and night terrors
• Give additional attention and ample physical comforting.
• Insist gently but firmly that the child accept more responsibility than younger siblings; positively reinforce age-appropriate behavior.
• Reduce pressure on the child to perform at his or her best in school and while doing chores at home.
• Reassure the child that his competence will return.
• Provide structured but not demanding chores and responsibilities.
• Encourage physical activity.
• Encourage verbal and written expression of thoughts and feelings about the disaster; encourage the child to grieve the loss of pets or toys.
• Schedule play sessions with adults and peers.

Regressive Reactions Emotional/Behavioral Reactions Physiological Reactions How to Help

OUTLINE OF EMERGENCY PROCEDURES

1. Remain calm. Reassure the victim and others at the scene.
2. Stay at the scene and give help until the person assigned to handle emergencies arrives.
3. Send word to the person who handles emergencies for your program. This person will take charge of the emergency, assess the situation, and give any further first aid as needed.
4. Do not move a severely injured or ill person except to save their life.
5. If appropriate, phone for help. Give all the important information slowly and clearly. To make sure
that you have given all the necessary information, wait for the other party to hang up first. Arrange
for transportation of the injured person by ambulance or other such vehicle, if necessary. Do not drive unless accompanied by another adult. Bring the Emergency Transportation Permission Form with you.
6. Do not give any medication unless authorized by the local Poison Control Center (for poisoning) or

physician (for other illness).
7. Notify parent(s) of the emergency and agree on a course of action with the parent(s).
8. If a parent cannot be reached, notify parent's emergency contact person and call the physician shown on the child's Emergency Transportation Permission Form.
9. Be sure that a responsible individual from the program stays with the child until the parent(s) take
charge.
10. Fill out the accident report within 24 hours. File it in the child's folder. Give the parent(s) a copy, preferably that day. Note injury information in a central injury log.

SITUATIONS THAT REQUIRE MEDICAL ATTENTION RIGHT AWAY

Listed below, you will find lists of common medical emergencies or urgent situations you may encounter as a child care provider. To prepare for such situations:
1) Know how to access Emergency Medical Services (EMS) in your area.
2) Educate Staff on the recognition of an emergency.
3) Know the phone number for each child's guardian and primary health care provider.
4) Develop plans for children with special medical needs with their family and physician.

At any time you believe the child's life may be at risk, or you believe there is a risk of permanent injury, seek immediate medical treatment.

Call Emergency Medical Services (EMS) immediately if:
- You believe the child's life is at risk or there is a risk of permanent injury.
- The child is acting strangely, much less alert, or much more withdrawn than usual.
- The child has difficulty breathing or is unable to speak.
- The child's skin or lips look blue, purple, or gray.
- The child has rhythmic jerking of arms and legs and a loss of consciousness (seizure).
- The child is unconscious.
- The child is less and less responsive.
- The child has any of the following after a head injury: decrease in level of alertness, confusion, headache, vomiting, irritability, or difficulty walking.
- The child has increasing or severe pain anywhere.
- The child has a cut or burn that is large, deep, and/or won't stop bleeding.
- The child is vomiting blood.
- The child has a severe stiff neck, headache, and fever.
- The child is significantly dehydrated: sunken eyes, lethargic, not making tears, not urinating.

After you have called EMS, remember to call the child's legal guardian.
Some children may have urgent situations that do not necessarily require ambulance transport but still need medical attention. The box below lists some of these more common situations. The legal guardian should be informed of the following conditions. If you or the guardian cannot reach the physician within one hour, the child should be brought to a hospital.

Get medical attention within one hour for:
• Fever in any age child who looks more than mildly ill.
• Fever in a child less than 2 months (8 weeks) of age.
• A quickly spreading purple or red rash.
• A large volume of blood in the stools.
• A cut that may require stitches.
• Any medical condition specifically outlined in a child's care plan requiring parental notification.

Children need to be prepared for an earthquake as much as adults, if not more.

Infants and Toddlers

For infants and toddlers, special emphasis should be placed on making their environment as safe as possible. Cribs should be placed away from windows and tall, unsecured bookcases and shelves that could slide or topple. A minimum of a 72-hour supply of extra water, formula, bottles, food, juices, clothing, disposable diapers, baby wipes and prescribed medications should be stored where it is most likely to be accessible after an earthquake. Also keep an extra diaper bag with these items in your car. Store strollers, wagons, blankets and cribs with appropriate wheels to evacuate infants, if necessary. Install bumper pads in cribs or bassinettes to protect babies during the shaking. Install latches on all cupboards (not just those

Preschool and School-age Children

By age three or so, children can understand what an earthquake is and how to get ready for one. Take the time to explain what causes earthquakes in terms they'll understand. Include your children in family discussions and planning for earthquake safety. Conduct drills and review safety procedures every six months. Show children the safest places to be in each room when an earthquake hits. Also show them all possible exits from each room. Use sturdy tables to teach children to Duck, Cover & Hold. Teach children what to do wherever they are during an earthquake (at school, in a tall building, outdoors). Make sure children's emergency cards at school are up-to-date. Although children should not turn off any utility valves, it's important that they know what gas smells like. Advise children to tell an adult if they smell gas after an earthquake. Install latches on all cupboards (not just those young children can reach) so that nothing can fall on your baby during a quake.

Reducing the Potential Threat of Disasters and Emergencies

Take the time to inspect your facility both inside and outside as well as the surrounding area around the facility for potential danger or disasters that may exist. Major threats during an earthquake are from falling objects from high places, furniture and equipment that is not secured, broken or flying glass, and severed or broken electrical lines, natural gas lines, and flooding from broken plumbing. The threat of fire is increased when flammable materials are not stored safely and there are trees and brush that are close

to or touching the building. Potential damage from flooding is great for facilities with poor drainage, clogged or obstructed storm drains and rain gutters or located in low lying or flood prone areas. This inspection may also help you find existing licensing violations and help you avoid future citations.

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1. Maintain a current and accessible written evacuation plan available with at least two unobstructed escape routes.
2. Ensure that matches, lighters, and flammable liquids are inaccessible to children.
3. Regularly clean and check heating, cooling, gas and electrical systems and verify that they are in good working order.

4. We suggest providing one or more carbon monoxide detectors, in addition to regular maintenance and checks of required smoke detectors.
5. Maintain fire extinguishers in kitchens and other areas, and ensure that they are properly charged mounted, and easy to reach in case of fire.
6. Train staff and family members on how to properly use a fire extinguisher.
7. Replace numerous electrical plugs and cords with safe electrical outlet sources, such as permanent outlets or strip outlet connectors with circuit breakers.
8. Secure water heaters, refrigerators, tall and heavy cabinets and furniture.
9. Check to be sure that all gas appliances have strong and flexible connections.
10. Remove or secure heavy objects on high shelves and counters.
11. Provide safety latches or locks on cabinets to keep contents inside.
12. Ensure that aquariums, wall hangings, pictures, and other potentially hazardous displays are secured and located away from seating/sleeping/play areas.
13. Check for any obstructions that prevent safe exit from the facility, such as window security bars.
14. Always use safety equipment during activities that could result in head injury. These include seat belts, bicycle or motorcycle helmets, and hard hats. Helmets reduce bicycle-related head and facial injuries for people of all ages, in all types of accidents, including those involving motor vehicles.

15. Three practices have been associated with reducing firearm injuries in homes with children and guns:

- Keep the gun locked.

- Keep the gun unloaded.

- Store ammunition locked in a separate location.

PREPAREDNESS

Water

1. Provide an adequate supply of drinking water to last the staff and children a

minimum of 72 hours (1/2 gallon per child and 1 gallon per adult per day). Additional water will be needed for sanitation.
2. Locate the water supplies in areas that are easy to reach in case of a disaster or emergency.
3. Use commercial water purifiers or disinfectants, date the water supply, and change it at least once per year to keep it fresh. Note: Water can be purified for storage by adding 8 drops of unscented chlorine bleach to every one gallon of water.

Food
1. Maintain a dated 72-hour emergency supply of food that does not require refrigeration and can be kept for long periods of time. Choose foods that are appropriate for the ages of children and that children are most likely to eat.
2. Store the emergency food supplies in areas that are safe, secure and easy to reach in most disasters.
3. Date all stored emergency food and plan to use and replace it on a regular basis
4. Maintain a supply of disposable eating utensils and a non-electrical can opener.
5. Document if you are caring for children with diabetes, allergies, or a special medical condition or need, and keep an emergency supply of their medications or other health supplies.

Emergency Supplies
1. Maintain at least a three - day supply in the six basic areas (water, food, first aid, clothing and bedding, tools and emergency supplies, and special items). Don't forget formula and special food for infants, including diapers and other sanitation supplies.
2. Make sure you have enough small and large first aid supplies, and portable first aid kits that can be easily taken outside in case of immediate evacuation.
3. Keep on hand portable radios with extra batteries.
4. Store extra batteries for the facility's smoke and carbon monoxide detectors and multiple flashlights so that each room has one.
5. Maintain an adequate supply of personal hygiene and sanitation supplies, including toilet paper and paper towels. Instruct staff to keep their own personal necessity items safely stored at the facility.
6. Store extra bedding and blankets to provide warmth and comfort if outdoors or inside if utilities fail.
7. Consider making provisions for portable toilets, tarps/canopies, and some sort of temporary shelter structure in case you need to keep everyone outside.
8. Large child care programs will need equipment and supplies for search and rescue, such as shovels, crowbars, hard hats, stretcher, and flashlights.
9. Maintain a minimal supply of sandbags and plastic sheeting to prevent or reduce flood damage.

Transportation
1. Keep additional first aid kits in the facility's vehicle(s).
2. Obtain and update regularly emergency phone numbers and identification

information for the children, including consent for medical treatment and transportable in an emergency.
3. Keep at least ¼ tank of gas in all facility vehicles.
4. Develop a plan to supplement facility transportation by the use of volunteers, additional staff, or neighboring facility vehicles.
5. Make sure that the vehicle is in good operating condition.

Disaster Drills and Procedures
1. Schedule regular drills at least once every six months, including provisions for fire, earthquake, shelter in place, relocation and evacuation. Document all such drills. (Section 102417 (g) (9) for Family Child Care Homes and Section 101174 (d) for Child Care Centers.
2. Be sure your staff and children know the signs and signals for various types of disasters, and that they understand what to do.
3. Conduct drills for different types of disasters at several times during the year.
4. Develop plans for relocating to more than one other site, if necessary. Obtain written agreements to use those site, and be sure that parents and staff know the location of the sites.
5. Establish procedures to inform responsible relatives of children in your care about your response plan. Parents can be a valuable resource in helping to plan and secure supplies.
6. In larger child care facilities, establish more than one way to convey an immediate message to all staff in all areas that they need to shelter-in-place (lock down), or evacuate immediately if it is safe. Remember, communication systems that rely on your electrical system may not function in an emergency.
7. Establish confirmed out-of-state and out-of-area telephone contacts that can be used to relay facility status information in case local phone lines are overloaded, and be sure parents and guardians have been given these phone numbers.
8. For larger child care facilities, consider including your governing board, neighborhood residents, local government, businesses, and volunteers in your planning.
9. Provide assistance and information to ensure that staff are prepared at home, and that they have a family plan and supplies.

Recovering from Disaster
Recovery from disaster means efforts to return the facility, staff, and children to normal as soon as possible. There may be extensive visible damage to the physical plant, requiring a series of repairs. Depending on the amount of damage, returning to normal operations could be a long term process. Be familiar with your local jurisdictions damage assessment process. If your facility sustains structural damage, access may be limited or prohibited and this will impact the clean-up and initial repairs that you and your staff can do. Be sure that your facility has been inspected and you have been given approval to return. The cumulative crisis-related stress of a disaster can dramatically impact the psychological and physical well-being of children and adults.

Facilities that are prepared for disaster have shorter recovery times. Loss of clientele and potential loss in income are added reasons why facilities will want to do everything they can to return to normal as soon as possible. Despite your best efforts to provide support and reassurance to children and adults, they may continue to experience these symptoms and reactions which may indicate a need for professional consultation and intervention:

Children: Withdrawn, depressed, helpless, generalized fear, loss of verbal skills, sleep disturbances, loss of toileting skills, anxious attachment and clinging, uncharacteristic hostility or acting out.

Adults: Withdrawal or depression, feelings of inadequacy and helplessness, difficulty in concentration, anti-social behavior, slow to respond, substance abuse, psychosomatic or real physical symptoms (headache, bladder/bowel problems, chest pains, cramps, sleep disturbance, change in food consumption patterns).

Facility staff can assist in psychological recovery by giving children and adults correct information about the disaster, preparing for additional events (such as earthquake aftershock), providing opportunities to talk and share feelings with others at the facility, providing a regimen of choices and activities, and facilitating communication with loved ones or family members outside of the facility.

The following activities will assist in returning the facility itself to normal operations:
1. As soon as possible after the disaster, you or staff should perform an initial damage inspection of the facility in all interior and exterior areas.
2. A licensed structural engineer, architect or building inspector can assist in a detailed safety inspection of your buildings.
3. Delays in repair and construction may result in lost business from your parents.
4. Determine the potential impact of an interrupted cash flow and consider establishing a contingency fund.
5. Consider obtaining earthquake and flood insurance to protect your facility and assets.
6. Maintain accurate records to inventory condition of furniture, equipment and other high-cost items.
7. Set-up an ongoing system of accurately documenting the costs associated with the disaster, including staff and supplies.
8. Develop reasonable expectations for staff and children during a disaster, when coping ability is low and frustrations are high.
9. If a major disaster is declared, you may need to contact the Federal Emergency Management Agency (FEMA), the Small Business Administration (SBA), and local emergency offices to find out about applying for disaster assistance programs.
10. Determine which children or staff will require additional assistance from staff to relocate from the facility during a drill or actual emergency.
11. Contact your local fire department, city or county Office of Emergency Services, or a local Chapter of the American Red Cross regarding training for your facility.

Communicating with the Licensing Agency

Title 22 regulations for most facility types require reporting of unusual incidents to Community Care Licensing by telephone or fax within 24 hours, with a written report to follow in seven days. Communicating with the licensing agency is extremely important if you have damage to your building, need to relocate, or have injuries or deaths involving children or adults. During previous disasters, licensing staff have assisted in facility relocation by expediting the issuance of Provisional Licenses for temporary sites, and coordinating health and safety inspections with local building and fire authorities to assure the safety of any new facility. Since licenses are not transferable, outside funding sources, such as subsidized child care, child care food programs, and regional centers, may require verification of a current, valid license and status before funding can continue to provide care to children at a new location.

These below forms are required by the Child Care Licensing Agency (Analyst) and should be completed and submitted within 24 hours

These forms can be found with the attached links

The child care home or center, official reporting forms for "unusual incidents" in licensed child care that are required by the Licensing agency, in cases of serious injuries or illnesses.
The below link is the LIC624A Death Report form , Licensing should be call within 24 hours of any death and the Death Form must be completed and submitted within 7 days to licensing.
http://www.cdss.ca.gov/cdssweb/entres/forms/English/LIC624A.PDF

The second page of this link is a step by step general instructions for completion of the form.

The below link is the LIC624 unusual incident/Injury Report – Child Care Center. In the event of an incident, death, any injury that requires medical treatment, any missing child, any suspected child abuse of any child in care, and fire or explosions, any communicable disease outbreak, any poisoning, or other incident that threatens the physical or emotional health of a child.

The child care provider should call the parent the day of the incident, within the next day (within 24 hours) notify Licensing, within 7 calendar days submit this written report and keeps copies of all report submitted to Licensing
http://www.cdss.ca.gov/cdssweb/entres/forms/English/LIC624.PDF

The below link is the LIC624B unusual incident/Injury Report – Family Child Care Home. In the event of an incident, death, any injury that requires medical treatment, any missing child, any suspected child abuse of any child in care, and fire or explosions, any communicable disease outbreak, any poisoning, or other incident that threatens the physical or emotional health of a child.

The child care provider should call the parent the day of the incident, within the next day (within 24 hours) notify Licensing, within 7 calendar days submit this written report and keeps copies of all report submitted to Licensing.
http://www.cdss.ca.gov/cdssweb/entres/forms/English/LIC624B.PDF

Injury Report Form

Name of Program: _____ Phone: _____

Address of Facility: _____

Child's Name: _____ Sex: M F Birth date: __/__/__Incident Date:__ /__ /__

Time of Incident: _____:_____am/pm Witnesses: _____

Name of Legal Guardian/Parent Notified: _____Notified by: _____ Time Notified: ____:____am/pm

EMS (911) or other medical professional ❑ Not notified ❑ Notified Time Notified: ____:_____am/pm

Location where incident occurred: ❑ playground ❑ classroom ❑ bathroom ❑ hall ❑ kitchen ❑ doorway ❑ large muscle room or gym ❑ office ❑ dining room ❑unknown ❑other (specify)_____

Equipment/product involved: ❑ climber ❑ slide ❑ swing ❑ playground surface ❑sandbox ❑trike/bike ❑hand toy (specify):_____

❑other equipment (specify): _____

Cause of injury: (describe)_____

❑ fall to surface; estimated height of fall _____ feet; type of surface: _____

❑ fall from running or tripping ❑ bitten by child ❑motor vehicle ❑ hit or pushed by child ❑ injured by object

❑ eating or choking ❑ insect sting/bite ❑ animal bite ❑ injury from exposure to cold ❑ other (specify): _____

Parts of body injured: ❑ eye ear ❑ nose ❑ mouth ❑ tooth ❑other part of face ❑ other part of head ❑ neck ❑arm/wristband ❑leg/ankle/foot ❑trunk other (specify):_____

Type of injury: ❑ cut ❑ bruise or swelling ❑ puncture ❑ scrape ❑ broken bone or dislocation ❑ sprain

❑crushing injury ❑ burn ❑ loss of consciousness ❑ unknown ❑ other (specify): _____

First aide given at the facility: (e.g., comfort, pressure, elevation, cold pack, washing, bandage):_____

Treatment provided by: _____

❑ no doctor's or dentist's treatment required
❑ treated as an outpatient (e.g., office or emergency room)
❑ hospitalized (overnight) # of days:_____

Number of days of limited activity from this incident: _____ Follow-up plan for care of the child: _____

Corrective action needed to prevent reoccurrence: _____

Name of official/agency notified: _____ Date: _____

Signature of staff member: _____ Date: _____

Signature of Legal Guardian/Parent: _____ Date: _____ This form must be filed with the Department of Social Services Community Care Licensing Division, LLC 634 for child care centers, and LIC 624 B for child care homes.

Resources

There are many resources and agencies available to assist in your disaster planning efforts. The following are some of the resources and agencies you may want to contact for further information on disaster planning:

1. Provider groups/associations to share information on disaster planning and disaster resources in your Community.
2. Local Chapters of the American Red Cross.
3. Local City or County Emergency Services Coordinators.
4. Telephone book yellow page listings under "Earthquake Products and Services".
5. For child care facilities, disaster planning and response books and videos through the California Department of Education publications catalog. Phone: 1-800-995-4099.
6. Disaster assistance agency internet web site addresses (check your local phone book for phone numbers):

State of California Governor's Office of Emergency Services (OES): http://www.oes.ca.gov

Federal Emergency Management Agency (FEMA): http://www.fema.gov

Federal Small Business Administration (SBA): http://www.sba.gov

American Red Cross: http://www.redcross.org

Los Angeles County Emergency Operations Bureau (downloadable school plans): http://eob.org

California Department of Social Services

CHILD CARE CENTERS SELF-ASSESSMENT GUIDE
HOW TO MAKE YOUR CHILD CARE CENTER A SAFER PLACE FOR CHILDREN

COMMUNITY CARE LICENSING DIVISION
"Promoting Healthy, Safe and Supportive Community Care"

Security in Child Care Settings How To Make Your Child Care Center a Safer Place for Children

Recent events have generated increasing questions about safety and security in child care centers, particularly in response to external threats. This guide is intended to assist you in considering how to make your child care center as safe as it can be. While it is important to take security measures, it is also important that your center conveys an appropriate child care atmosphere. Any changes to increase

security should be made in a way that reassures children and makes them feel comfortable. This guide includes a review of licensing requirements related to security followed by options you may want to consider to make your child care center as safe as possible.

Licensing Regulations Related to Security

The key to security is preparedness. The best place to start is to be sure your center is already in compliance with existing licensing regulations that promote child security. Some of these licensing regulations are listed below with the regulation number in parentheses.

☐ **Criminal Record Clearances and Child Abuse Central Index Check (Section 101170)**

Criminal record clearances and child abuse central index checks ensure that individuals who have committed a crime or questionable act do not have access to children in care. Clearances are obtained from the California Department of Justice for California criminal convictions and arrests, and from the Federal Bureau of Investigation for federal convictions and convictions from other states. Both clearances are required for all staff and volunteers. Directors must be cleared before they begin operating a center. Staff and volunteers must submit their fingerprints for clearance before they start to work or have contact with children. Child abuse index checks are performed by the California Department of Justice and are required for all persons who care for children.

☐ **Disaster and Mass Casualty Plan (Section 101174)**

Child care centers are responsible for developing this plan to provide staff and children with instruction on fire safety and their duties and responsibilities in the event of an emergency. The plan identifies procedures for safe exiting, Emergency Preparedness n California Training Institute in California Childcare Health Program n 37 transportation, and supervision of children during an evacuation or relocation to predetermined sites equipped to temporarily care for the children. The plan must be available at the child care site, and disaster drills for children and staff are required at least every six months. You may want to schedule more frequent drills, or include in your drills some of the other security recommendations included in this guide.

☐ **Fire Clearance (Section 101171)**

A fire clearance is mandatory, and must be obtained before a license can be issued. A new fire clearance is required when you change your capacity, enroll children who are non-ambulatory, or make physical alterations to your center.

□ **Sign In and Sign Out (Section 101229.1)**
Anyone who drops off or picks up a child from the center must sign his or her full name and record the time of day the child is dropped off or picked up. The name of the person who picks up the child must be on file in the child's record. This ensures that the child leaves your center only with their parent or the parents' authorized representative.

□ **Teacher-Child Ratio (Section 101216.3)**
Teacher-child ratios are required to ensure that there are sufficient teachers and other adults available to adequately supervise the children in care. These adults are also responsible for acting to protect the children in an emergency.

□ **Telephones (Section 101224)**
A working telephone is required to maintain contact with sources outside the center as part of normal business operations, and in response to an emergency situation.

□ **Responsibility for Providing Care and Supervision (Section 101229)**
You must provide care and supervision as necessary to meet the needs of the children in your care. Adequate staffing must be available at all times to ensure children are not left without supervision. In emergency situations, as part of care and supervision, staff are expected to take appropriate actions to implement the center's emergency plan and protect the children in care.

OPTIONS FOR IMPROVING SECURITY
The following options are intended to supplement and build on the licensing regulations discussed above. These options are divided into low cost actions that could be taken immediately, and actions that could be taken as fiscal resources permit. A third section offers suggestions for working with parents and caretakers.

Actions That Can Be Taken Immediately:

□ **Contact your local law enforcement agency, inform them you are operating a child care center and request they perform a safety inspection of your facility.**
Law enforcement agencies are not always as aware of the location of child care centers as they are of school sites. This is true even if the child care center is located on a school site. Letting law enforcement know of your existence will help

them respond to an emergency at your center. You may want to invite a local officer to your center to better acquaint them with the ages of children you serve and the number of children in your program. You can also ask them to perform a security inspection of your site. Law enforcement personnel can provide many useful ideas about how to make your center safer. Many law enforcement agencies may be willing to speak at a staff or parent meeting about security issues. In addition to contacting local law enforcement office directly, you can request a security inspection by contacting the Governor's Office of Emergency Services, toll-free, at 1-888-SAFE-CA9. They will refer your request to a local law enforcement agency, and can provide you with information on security, crime prevention, 911 procedures, workplace safety, security at work, crime victim information and State of California emergency numbers.

☐ **Review your physical plant for security.**
Walk around the grounds of your center. Look for areas that could be a potential hiding place for an individual or a dangerous item. Do you have plants or shrubs that are overgrown so that a person could hide behind them? Do shrubs or plants block the view of the entrance or any other entry way to the child care site? Are there areas of the center not readily visible from other locations, or that are normally left vacant? Check out the playground. If you have a gate leading to the street or parking lot, is it secure?

☐ **Develop a system of code words/phrases to use among staff in announcing an emergency.**
Code words allow staff to communicate that a dangerous situation is occurring without informing the intruder or alarming children. This could allow you to remove a child or children from harm's way and give you time to make an emergency phone call. It is important that all staff be made aware of these words/phrases so they can act immediately. This system must be practiced regularly.

☐ **Develop arrangements for mutual aid with other child care centers and local schools in your area.**
Child care centers in the same vicinity can be of great assistance because they know your particular situation better than most. Form a partnership with other programs, develop specific procedures to take in case of an emergency, and update mutual aid plans regularly. You may also contact the local schools in your area to discuss plans should an emergency occur.

☐ **Develop two relocation sites to be used in an emergency.**
Sometimes emergency situations may also impact your primary relocation

site. A second site would allow you to remove staff and children to a safe area.

☐ **Develop a "Phone Tree" calling system among parents to be used in emergencies.**
This allows center staff to make only one or two phone calls to alert all parents of an emergency. You can practice this system by using it for nonemergency events like holiday celebrations.

Actions You Can Take As Fiscally Feasible/Possible:
☐ **Install buzzers/signals on doors and outside gates to alert staff when someone enters or leaves the center.**
Staff are not always able to observe entrances. A buzzer or other signal would help to ensure that they are more aware of people who enter or leave the child care center. The signal system should either be loud enough to be heard throughout the center or be connected to a room where there is always a staff person available to hear the signal.

☐ **Install security doors with coded buttons allowing only authorized entrance into the center.**
This would help to ensure that only authorized persons could enter the child care center. All parents and staff would need to know the code, as parents must be allowed by law to enter the program at any time unannounced. This system must be cleared by the licensing office and by the local fire department. You should inform these agencies of the code as well.

☐ **Install outside security cameras that transmit a picture into the office.**
This would allow staff to know who is about to enter the center. This system could be connected to a buzzer signal that would alert staff to check the picture as the person enters.

☐ **Install panic buttons or intercoms in each room and in the office.**
This system would allow instant communication between various locations in the center and would trigger the action plan developed by staff and parents. The system should also identify which room needs assistance.

☐ **Install motion sensors with lights/buzzers on the outside of the building to alert staff of someone entering the facility.**
Staff should be available to monitor this system. Again, parents and authorized representatives must be allowed unannounced access, so this system could not restrict their access.

☐ **Install mirrors on the corners of the building to afford better visibility.**
This would allow staff to see who might be coming around the corner of the building without having to actually go around the corner. This could allow a few extra seconds in case of an emergency situation.

☐ **Issue photo identification badges with electronic codes to all authorized parents/adults and staff.**
This system would allow only those directly authorized by the program to gain entrance to the center. The licensing agency and the local fire marshal would have to approve this system as they, too, must have access to the center.

☐ **Have at least one cellular phone available in case of an emergency. If at all possible, a cellular phone in each classroom would be best.**
By having a cellular phone, or two, staff would be able to make an emergency call from any location in the center. The center director should designate who should have access to the phone(s) and ensure the phones are always in working order. Emergency phone numbers should be programmed into the phone(s) as well.

☐ **Create a two-stage entrance into the center.**
Many centers have doors that enter from the outside directly into a space occupied by children. Redesigning the available space could increase security. This could be as easy as having all visitors pass through the Director's office on the way into their child's room. Staff in the office could then monitor who is entering. Another alternative would be a lobby where parents sign children in and out. A TV monitor could identify who is entering without limiting access.

☐ **Establish an Internet connection from the center.**
This allows parents to monitor their child's experience during the day. It could also be used to alert them if an emergency occurs. Community Care Licensing recently established guidelines for this type of system, so check with your licensing office prior to installation.

☐ **Give personal identification numbers (PIN) to parents wishing to sign their child in or out of the center.**
Some centers utilize automated systems as part of the sign-in/sign-out process. In these systems, parents enter an identification number into a computer system that stores a roster of children's names. The computer confirms the identification number, and notes date and time. If the PIN is accurate, the child is released to the person entering the PIN. Only the child's

authorized representatives would have the PIN. Staff should not be allowed access to parents' numbers and they must be kept confidential. Check with our local licensing office prior to installing this system.

Parents/Relatives

Parents and other relatives are obviously as concerned as you and your staff for the safety of their children. They are your partners in providing a secure environment at the child care center. Parents want to know that their children are safe at all times. They also want their children to learn and have fun in the child care setting. Many parents might be familiar with some of the recommendations made above and can help you implement them. The better informed your parent community, the less chance that you may experience conflict when you implement any of these suggestions. There may also be occasions when a parent or other relative can be the source of conflict or be a threat to the safety of the children in care. Two of the most common situations are:

- Centers sometimes report problems in responding to a parent who comes to pick up their child while inebriated or under the influence of drugs. Staff may believe the parent represents a potential danger in transporting or caring for their child. If this situation occurs, staff must make every effort to prevent the parent from taking the child. If the center is closing, this would include staff staying with the child and attempting to call another relative or adult who has been identified by the parent to assume responsibility for the child. If finding someone to stay with the child is impossible, local law enforcement should be immediately notified and provided with information including the address of the parent and the vehicle they are driving. The parent should be advised when bringing the child to care on any subsequent day that this situation will not be tolerated, and you are prepared to notify law enforcement again if the situation recurs.

- Occasionally, someone other than the parent, or authorized representative, attempts to remove the child from the center. On a few occasions, the person is the non-custodial parent who does not intend to return the child home. Centers must have procedures in place to ensure that only authorized representative may sign-out a child. If anyone else tries to sign-out a child, the parent must be notified immediately and law enforcement contacted if the individual persists.