

Advanced First Aid

LESSON 1

"INTRODUCTION TO FIRST AID"

OBJECTIVES: The student will be able to:

- Recognize signs of an emergency.
- Identify an ill or injured person.
- Perform the check, call, care process on a victim.
- Be able to call 9-1-1 and supply the needed information.
- Recognize an unconscious adult, child or infant
- Identify steps to care for an unconscious adult, child or infant

PA STANDARDS

10.3.9.B: Describe and apply strategies for emergency and long-term management of injuries.

rescue breathing, water rescue, self-care, sport injuries

10.3.12.B: Analyze and apply strategies for the management of injuries.

CPR

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LEARNING TARGET: FIRST AID AND PERSONAL SAFETY



INSTANT ACTIVITY

In the space below, circle the situations where you would call 9-1-1.

Minor bruise on the arm

Cat Scratch on the cheek

No signs of life

Deep burn on the face

No breathing

Unconsciousness

Scrape on the elbow

Trouble breathing

Cut lip

Persistent chest pain

Severe bleeding that does not stop

Mild sunburn on shoulders

Cramp in the thigh

Pain in the abdomen

Vomiting blood

Seizures

Injury to the head

Apparent poisoning

Splinter in the foot

Injured arm with
bone showing

RECOGNIZING EMERGENCIES

Your senses (hearing, sight and smell) may help you recognize an emergency.
Emergencies are often signaled by something unusual that catches your attention.

Unusual Sights	Unusual Appearances or Behaviors	Unusual Odors	Unusual Noises

CHECK, CALL, CARE

CHECK

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

CALL

1. _____
 - a. _____
 - b. _____
 - c. _____
 - d. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

ALWAYS call first in the following situations:

- An unconscious adult, child or infant.
- A witnessed sudden collapse of a child or infant.
- Anyone known to have heart problems.



AFTER calling 9-1-1, use the following guidelines:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

CALLING 9-1-1

OH NO! You are sitting in your bedroom and suddenly, you hear screeching tires, crunching metal and a loud scream. You run outside to find out what happened and you see a man at the wheel that is unconscious. The person in the other car seems to have a broken arm. You now need to call 9-1-1. What do you tell them??

LOCATION (include street address, city/town, directions)	
Phone Number from which you are calling from	
Your Name	
What Happened?	
How many people were injured?	
Condition of the injured	
Any care that you have given the victim (s)	

CHECKING A CONSCIOUS PERSON

Person is awake, and can speak to you.

STEP 1	
STEP 2	
STEP 3	
STEP 4	Ask the person: -What is your name? -What happened? -Where do you feel pain or discomfort? -Do you have any allergies? -Do you have any medical conditions? -Are you taking any medications? -When did you last eat or drink anything?
STEP 5	CHECK Head to Toe for: -Bleeding, fluids or wounds -Skin color and temperature -Medical ID bracelet -Observable signs of pain
STEP 6	

WHAT ARE THE ABC's?

A: _____

B: _____

C: _____

CHECKING AN UNCONSCIOUS PERSON

Person appears to be unconscious

STEP	ADULT 12 and older	CHILD 1-12 years old	INFANT Under age 1
1	CHECK the scene, then CHECK person	CHECK the scene, then CHECK child	CHECK the scene, then CHECK infant
2	Tap the shoulder and shout: "Are you okay?"		Obtain consent from parent or guardian.
3		Tap the shoulder and shout: "Are you okay?"	
4	Open airway (tilt head, lift chin), CHECK for signs of life for no more than 10 seconds.	No response, CALL 9-1-1 IF ALONE: Give 2 minutes of care then call 9-1-1.	No response, CALL 9-1-1 IF ALONE: Give 2 minutes of care then call 9-1-1.
5	If no breathing, give 2 rescue breaths		Open airway (tilt head, lift chin), CHECK for signs of life for no more than 10 seconds.
6	If breathing, place in the recovery position and monitor ABC's	If no breathing, give 2 rescue breaths	If no breathing, give 2 rescue breaths
7		If breaths go in, CHECK for pulse.	
8		If breathing, place in recovery position and monitor ABC's	If breathing, place in recovery position and monitor ABC's
WHAT TO DO NEXT	IF BREATHS GO IN: IF BREATHS DO NOT GO IN: Give care for unconscious choking	IF BREATHS DO NOT GO IN: Give care for unconscious choking IF PULSE BUT NO BREATHING: IF NO PULSE: Give CPR or use AED	IF BREATHS DO NOT GO IN: Give care for unconscious choking IF PULSE BUT NO BREATHING: Give rescue breathing IF NO PULSE:

LESSON 2

“Choking”

OBJECTIVES: The student will be able to:

Identify the universal sign for choking

-Perform steps to help a conscious choking victim

-Perform steps to help an unconscious choking victim

-Understand how to give a rescue breath

PA STANDARDS

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LEARNING TARGET: FIRST AID AND PERSONAL SAFETY



INSTANT ACTIVITY

What is the universal sign for choking?

Name 5 common places you would encounter a choking victim.

1. _____
2. _____
3. _____
4. _____
5. _____

BREATHING EMERGENCIES

The human body needs a constant amount of oxygen to survive. Below is a list of symptoms of a breathing emergency.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

ASTHMA: _____

TRIGGERS:

SIGNALS OF AN ASTHMA ATTACK:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

**MANY PEOPLE WITH ASTHMA CARRY INHALERS AND SHOULD BE ASSISTED IN
ADMINISTERING THEM DURING AN ATTACK.**

CONSCIOUS CHOKING

Cannot cough, speak or breathe

STEP	ADULT 12 and older	CHILD 1-12 years old	INFANT Under age 1
1	CHECK the scene, then CHECK person		CHECK the scene, then CHECK infant
2		Have someone call 9-1-1	Have someone call 9-1-1
3	Obtain consent	Obtain consent from parent or guardian	
4	Lean the person forward and give ____ back blows with the heel of your hand.	Lean the child forward and give ____ back blows with the heel of your hand.	Give ____ back blows with heel of hand.
5	Give ____ quick, upward abdominal thrusts.	Give ____ quick, upward abdominal thrusts.	Give ____ chest thrusts using 2 fingers.
6	Continue back blows and abdominal thrusts until- - _____ -Person can breathe or cough forcefully -Person becomes unconscious	Continue back blows and abdominal thrusts until- -Object is forced out -Person can breathe or cough forcefully - _____ _____	Continue back blows and abdominal thrusts until- -Object is forced out - _____ _____
WHAT TO DO NEXT	IF PERSON BECOMES UNCONSCIOUS: -Call 9-1-1, if not already done. -Give care for unconscious choking.	IF PERSON BECOMES UNCONSCIOUS: -Call 9-1-1, if not already done. -Give care for unconscious choking.	IF PERSON BECOMES UNCONSCIOUS: -Call 9-1-1, if not already done. -Give care for unconscious choking.

HOW TO GIVE A RESCUE BREATH

No movement, No breathing

AFTER CHECKING AN ILL OR INJURED PERSON- to give a rescue breath:

STEP	ADULT 12 and older	CHILD 1-12 years old	INFANT Under age 1
1		Give _____ rescue breath about every _____ seconds. -Pinch nose shut. -Make seal over child's mouth. -Blow in to make the chest clearly rise.	Give _____ rescue breath about every _____ seconds. -Pinch nose shut. -Make seal over child's mouth. -Blow in to make the chest clearly rise.
2	Take a breath and make a complete seal over the person's mouth.	After about _____ minutes, recheck for signs of life and pulse for no more than _____ seconds.	After about _____ minutes, recheck for signs of life and pulse for no more than _____ seconds.
3	Each rescue breath should last about 1 second.		
WHAT TO DO NEXT	IF BREATHS GO IN: IF BREATHS DO NOT GO IN: Give care for unconscious choking.	IF PULSE BUT NO BREATHING: Continue rescue breathing IF NO PULSE:	IF PULSE BUT NO BREATHING: IF NO PULSE: Give CPR

UNCONSCIOUS CHOKING

Breaths do not go in

STEP	ADULT 12 and older	CHILD 1-12 years old	INFANT Under age 1
1	Tilt head farther back. Try _____ rescue breaths again.	Tilt head farther back. Try _____ rescue breaths again.	Tilt head farther back. Try _____ rescue breaths again.
2	If chest does not rise- Give _____ chest compressions.	If chest does not rise- Give _____ chest compressions.	If chest does not rise- Give _____ chest compressions.
3	Look for an object.		
4		Remove if one is seen.	Remove if one is seen.
5	Try _____ rescue breaths.	Try _____ rescue breaths.	
WHAT TO DO NEXT	IF BREATHS DO NOT GO IN: IF BREATHS GO IN: -Check for signs of life. -Give care based on conditions found.	IF BREATHS DO NOT GO IN: -continue steps 2-5 IF BREATHS GO IN: -Check for signs of life.	IF BREATHS DO NOT GO IN: -continue steps 2-5 IF BREATHS GO IN: -Give care based on conditions found.

LESSON 3

"Cardiac Emergencies and CPR"

OBJECTIVES: The student will be able to:

- Identify the cardiac chain of survival.
- Identify signs of a heart attack.
- Perform CPR skills for an adult, child and infant.
- Recognize when to use an AED and perform steps to use the AED.

PA STANDARDS

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INSTANT ACTIVITY

In the space below, list as many signs of the 9 signs of a heart attack that you can.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

CARDIAC CHAIN OF SURVIVAL

CPR provides about 1/3 the normal blood flow to the brain. CPR alone is not enough to help someone survive cardiac arrest. Advanced medical care is needed as soon as possible. A person in cardiac arrest will have a greater chance of survival from cardiac arrest if the following 4-step sequence occurs:

1

--

2

--

3

--




4

--

In the Cardiac Chain of Survival, each link depends on and is connected to the other links. It is very important to recognize and start CPR promptly and continue it until an AED is available or EMS arrives and can take over.

CPR SKILL COMPARISON CHART

How the skill differs by age.

Skill Component	ADULT 12 and older	CHILD 1-12 years old	INFANT Under age 1
			
Hand Position	Two hands in the center of the chest.	One or two hands on center of chest.	Two or three fingers on lower half of chest.
Compress			
Breathe	Until the chest rises (about 1 second per breath)	Until chest rises (about 1 second per breath)	Until chest rises (about 1 second per breath)
Cycle	____ Compressions ____ breaths	____ Compressions ____ breaths	____ Compressions ____ breaths
Rate	____ compressions in about ____ seconds (100 per minute)	____ compressions in about ____ seconds (100 per minute)	____ compressions in about ____ seconds (100 per minute)

Cardio Pulmonary Resuscitation

No signs of life

STEP	ADULT 12 and older	CHILD 1-12 years old	INFANT Under age 1
1	Give cycles of _____ chest compressions and _____ rescue breaths.	Give cycles of _____ chest compressions and _____ rescue breaths.	Give cycles of _____ chest compressions and _____ rescue breaths.
2	Continue CPR until-	Continue CPR until-	Continue CPR until-
WHAT TO DO NEXT	USE AED AS SOON AS ONE BECOMES AVAILABLE	<p>If an AED becomes available, use it.</p> <p>IF PULSE BUT NO BREATHING: -Give rescue breaths</p>	<p>IF NO SIGNS OF LIFE: -Continue CPR</p> <p>IF PULSE BUT NO BREATHING: -Give rescue breaths</p>



No signs of life – Over age 8 or more than 55 pounds

STEP	ADULT 12 and older	CHILD 1-12 years old	INFANT Under age 1
1	Turn on AED	Turn on AED	
2		Wipe Chest Dry	
3	Attach pads to bare chest	Attach _____ pads to bare chest (Pads cannot touch!)	
4	Plug in connector, if necessary	Plug in connector, if necessary	
5	-Make sure no one, including you, is touching person. -Say	-Make sure no one, including you, is touching person. -Say,	
6	Push AED analyze button.	Let AED analyze heart rhythm	
7	IF SHOCK ADVISED -Make sure no one, including you, is touching the person -Say "EVERYONE STAND CLEAR" -Push shock button	IF SHOCK ADVISED -Make sure no one, including you, is touching the person -Say "EVERYONE STAND CLEAR" -Push shock button	
WHAT TO DO NEXT	AFTER SHOCK: Give _____ cycles of CPR or about _____ minutes. Let AED re-analyze. IF NO SHOCK ADVISED: Give 5 cycles of CPR or about 2 minutes.	AFTER SHOCK: Give _____ cycles of CPR or about _____ minutes. Let AED re-analyze. IF NO SHOCK ADVISED: Give 5 cycles of CPR or about 2 minutes.	

LESSON 4

"Soft Tissue Injuries"

OBJECTIVES: The student will be able to:

- Identify the difference between a closed wound and an open wound.
- Identify the 4 types of open wounds.
- Perform care for open wounds.
- Identify 3 types of burns.
- Perform care for burns.

Identify steps to control external bleeding.

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INSTANT ACTIVITY

In the space below, name as many things that you can that you would keep in a first aid kit.

WOUNDS

WOUND: _____

TYPE	Closed	Open	Open	Open	Open
Cause	When the body is bumped or hit.	Something rubbing against the skin.	Cut in the skin by a sharp object.	Portion of skin is partially or completely torn away.	Pointed object piercing the skin.
Do they bleed a lot?	Not visibly.	Not usually. Because damage is to capillaries..	Can bleed heavily or not at all	Often significant.	Does not tend to bleed much.
Examples	Bruise	Scrape	Cut by broken glass or scissors	Amputation	Stepping on a nail

CARE FOR CLOSED WOUNDS:

-Apply direct pressure to the area with cold or ice to decrease swelling and pain.

-

-Elevate the injured area to reduce swelling (not if it causes more pain).

-Look for Internal Signs of Bleeding

INTERNAL SIGNS OF BLEEDING:

1. Tender, swollen, bruised, or hardened area of the body, such as abdomen.
2. _____
3. Skin that feels cool or moist or looks pale or bluish.
4. _____
5. _____
6. Becoming drowsy, faint or unconscious.

CARE FOR OPEN WOUNDS:

****ALL OPEN WOUNDS NEED SOME TYPE OF COVERING!!!**

1. _____
2. _____

DRESSINGS: _____

OCCLUSIVE

DRESSINGS: -Bandage or dressing that closes a wound or damaged area of the body and prevents it from being exposed to the air to prevent infection.
-can help keep medications on wound.

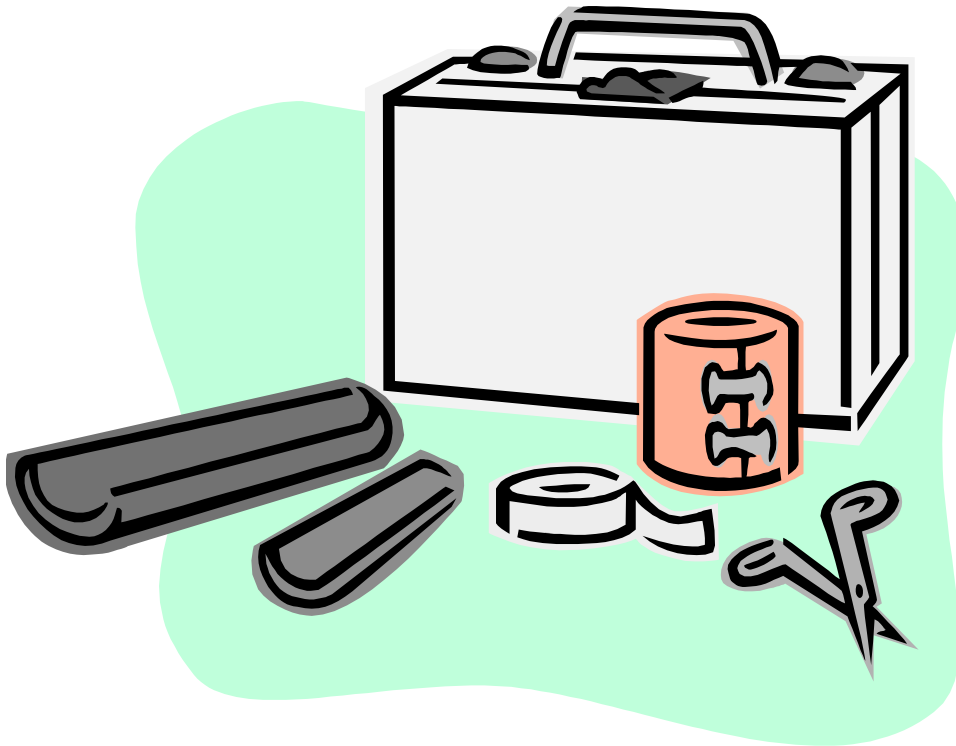
BANDAGES: -Any material that is used to wrap or cover any part of the body.
-Used to hold dressings in place, apply pressure to control bleeding, to protect against infection
and provide support to injured limb.

When applying the care for open wounds consider the following:

1. Check for feeling, warmth and color before applying wrap or bandage.
2. _____
3. Secure the loose end in place with an adhesive bandage.
4. Wrap bandage around the body part until the dressing is completely covered and the bandage exceeds several inches beyond the dressing.
5. _____

CONTROLLING EXTERNAL BLEEDING

- STEP 1:** _____
- STEP 2:** Obtain consent.
- STEP 3:** _____
- STEP 4:** Apply direct pressure until bleeding stops.
- STEP 5:** _____
- STEP 6:** If bleeding does not stop:
-Apply additional dressings and bandages.
-Take steps to minimize shock.
- _____

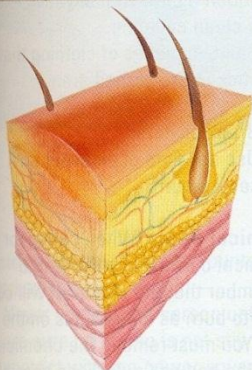
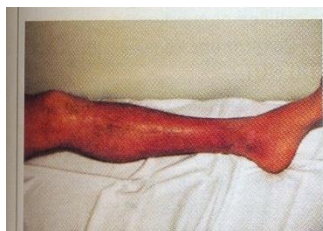




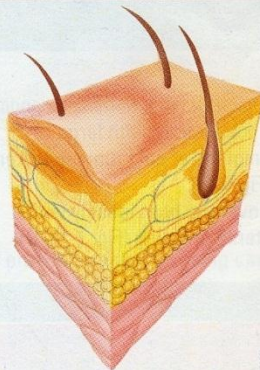
BURNS

Layer of Skin	Top layer of skin	Top layers of skin	May destroy all layers of skin and some underlying structures.
Symptoms	Skin is red and dry. Usually painful and may swell.	<ul style="list-style-type: none"> -Red Skin -Usually painful -Painful blisters that may weep clear fluid 	<ul style="list-style-type: none"> -Skin becomes brown or black with the tissue underneath sometimes appearing white. -Extremely painful
Healing	Usually within 1 week without permanent scarring.	Usually heals in 3-4 weeks and may scar	Healing may require medical assistance. Scarring likely.

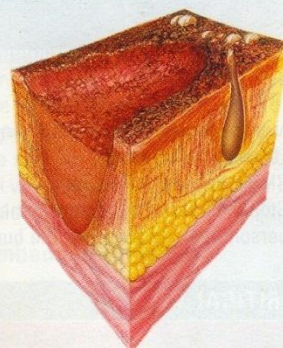
Match the picture to the correct type of burn:



Alan Dimick, M.D., Professor of Surgery, Former Director of UAB Burn Center.



Alan Dimick, M.D., Professor of Surgery, Former Director of UAB Burn Center.



Alan Dimick, M.D., Professor of Surgery, Former Director of UAB Burn Center.

Caring For Burns

Follow these steps when caring for a burn:

1. Check the scene for safety.
2. Stop the burn by removing the person from the source of the burn.
3. _____
4. Cool the burn with large amounts of cold running water.
5. Cover the burn loosely with a sterile dressing.
6. _____
7. Take steps to minimize shock.
8. Keep person from getting chilled or overheated.
9. _____

DO NOT:

- _____

-Touch a burn with anything besides clear covering.

-Try to clean a severe burn.

- _____

-Use any kind of ointment on a severe burn.

CHEMICAL BURNS: -Be sure to flush the chemical from the area with large amounts of cold water.

-Have person remove clothes if they are contaminated.

ELECTRICAL BURNS: -Do not go near the person until they are not in contact with the power source.

-Be prepared to give CPR or use an AED.

RADIATION BURNS: -Cool the burn and protect from further damage by keeping it out of the sun.

LESSON 5

"Injuries to Muscles, Bones and Joints"

OBJECTIVES: The student will be able to:

- Identify the four basic types of injuries.
- Identify signals of serious muscle, bone or joint injuries.
- Perform steps to care for a muscle, bone or joint injury.
- Perform steps to splint.

PA STANDARDS

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CPR

advanced first aid

LEARNING TARGET: FIRST AID AND PERSONAL SAFETY



INSTANT ACTIVITY

Name 5 places where you would encounter someone with an injury to a bone, muscle or joint.

1. _____
2. _____
3. _____
4. _____
5. _____

4 BASIC TYPES OF INJURIES

	FRACTURE	DISLOCATION	SPRAIN	STRAIN
What is it?				
Cause	-A fall -A blow -A twisting motion.	Caused by a violent force tearing the ligaments that hold the bone in place.	Caused by a twisting motion or violent blow.	Often by lifting something heavy or working a muscle too hard.
Important Info	In open fractures, bones break the skin.	-When a bone is moved out of place it can no longer function. -The displaced bone often forms a bump or ridge.	-Mild sprains heal quickly, but can swell. -If a person ignores signs of a sprain, they can often re-injure the area even worse.	-Usually occur in the back, neck, or legs.



SIGNALS OF SERIOUS MUSCLE, BONE or JOINT INJURIES

ALWAYS suspect a serious injury when any of the following signals are present:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

CARING FOR INJURIES

CARING FOR MUSCLE, BONE, or JOINT INJURIES

The general care for injuries to muscles, bones or joints includes the following acronym.

R

I

C

E



SPLINTING

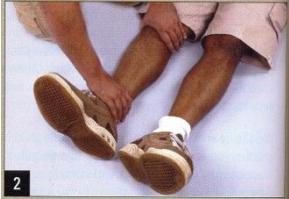





1. Splint only if the person must be moved or transported by someone other than EMS
2. _____
3. _____
4. Splint the injured area and the bones or joints above and below the injury.
5. _____

TYPES OF SPLINTS

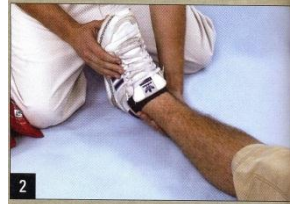




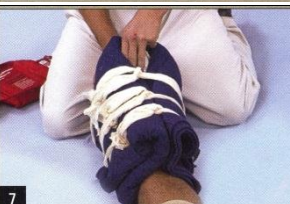
The person's body is a splint. EXAMPLE: You can splint an arm to the chest or an injured leg to the uninjured leg.	Soft materials such as blankets, towels, pillows or folded triangular bandages can be used to splint. EXAMPLE: Slings	Boards, folded magazines or newspapers, boards...	An injured leg stretched out on the ground is splinted by the ground.

AFTER YOU HAVE SPLINTED THE AREA, APPLY ICE TO THE INJURY!

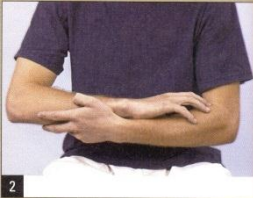




APPLYING AN ANATOMIC SPLINT

STEP 1	Obtain consent	
STEP 2	Support the injured body part above and below the site.	
STEP 3	Check for feeling, warmth and color.	
STEP 4	Place several folded triangular bandages above and below the injured body part.	
STEP 5	Place the uninjured body part next to the injured body part.	
STEP 6	Tie triangular bandages securely.	
STEP 7	Recheck for feeling, warmth and color.	

APPLYING A SOFT SPLINT

STEP 1	Obtain consent	
STEP 2	Support the injured body part above and below the site.	
STEP 3	Check for feeling, warmth and color.	
STEP 4	Place several folded triangular bandages above and below the injured body part.	
STEP 5	Gently wrap a soft object (folded blanket or towel) around the injured area.	
STEP 6	Tie triangular bandages securely.	
STEP 7	Recheck for feeling, warmth and color.	

APPLYING A RIGID SPLINT

STEP 1	Obtain consent	
STEP 2	Support the injured body part above and below the site.	 2
STEP 3	Check for feeling, warmth and color.	 3
STEP 4	Place the rigid board under the injured body part and the joints that are above and below the area.	 4
STEP 5	Tie several folded triangular bandages above and below injured area.	 5
STEP 6	Recheck for feeling, warmth and color.	 6

APPLYING A SLING

STEP 1	Obtain consent
STEP 2	Support the injured body part above and below the site.
STEP 3	Check for feeling, warmth and color.
STEP 4	Place a triangular bandage under the injured arm and over the uninjured shoulder to form a sling.
STEP 5	Tie the ends of the sling at the side of the neck.
STEP 6	Bind the injured body part to the chest with a folded triangular bandage.
STEP 7	Recheck for feeling, warmth and color.

LESSON 6

"Sudden Illness"

OBJECTIVES: The student will be able to:

- Identify warning signs of sudden illness
- Care for sudden illness
- Identify and care for heat and cold related illnesses
- Identify and care for insect and animal bites
- Identify signs of anaphylactic shock.
- Administer an epinephrine auto injection

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LEARNING TARGET: FIRST AID AND PERSONAL SAFETY



INSTANT ACTIVITY

In the space below, brainstorm signs and symptoms that someone could be experiencing a possible sudden illness.

SUDDEN ILLNESS

RECOGNIZING SUDDEN ILLNESS:

Common symptoms include:

1. Changes in consciousness, such as feeling lightheaded, dizzy or becoming unconscious.
2. Nausea or vomiting.
3. Difficulty speaking or slurred speech.
4. Numbness or weakness.
5. Loss of vision or blurred vision.
6. Changes in breathing.
7. Changes in skin color.
8. Sweating.
9. Persistent pain or pressure.
10. Diarrhea.
11. Seizures.
12. Paralysis, or not being able to move.
13. Severe headaches.

CARING FOR SUDDEN ILLNESS:

THEN:

1. Help the person rest comfortably.
2. Keep the person from getting chilled or overheated.
3. Reassure the person.
4. Watch for changes in consciousness or breathing.
5. Do not give anything to eat or drink unless the person is fully conscious and does not show signs of a stroke.
6. If a person vomits, lay them on their side.
7. In case of fainting, lay on back and elevate the legs 8-12 inches.

Specific Sudden Illness

	<p>Not usually harmful.</p> <p>Lower the person to the ground and lay on back.</p> <p>If possible, raise the person's legs 8-12 inches.</p> <p>Loosen any tight clothing (untie a tie)</p> <p>Check for breathing.</p> <p>Always call 9-1-1.</p>
	<p>Sometimes become ill due to having too much or too little sugar in the blood.</p> <p>Diabetics often know what is wrong and will ask for sugar.</p> <p>If conscious, give something with sugar, preferably liquid.</p> <p>Always call 9-1-1 for unconsciousness or if person does not feel better within 5 minutes or receiving sugar.</p>
	<p>Do not try to stop a seizure.</p> <p>Do not hold or restrain the person, nor put anything in the person's mouth.</p> <p>Care for seizure the same way you would an unconscious person.</p> <p>Remove objects that may be close by to prevent injury during seizure.</p> <p>Protect head by placing blanket or pillow under the head.</p> <p>Roll to side if there is anything in mouth.</p> <p>Call 9-1-1 if seizure lasts more than 5 minutes, person is injured, pregnant, diabetic, or person does not regain consciousness.</p>
	<p>A "Brain Attack" where blood flow to the brain is cut off.</p> <p>Usually caused by a blockage in the arteries.</p> <p>Always call 9-1-1 if person displays symptoms of a stroke.</p>

Everyone should know:




F

A



S

T

HEAT-RELATED INJURIES

	HEAT CRAMPS	HEAT EXHAUSTION	HEAT STROKE
PICTURE			
Severity	<p>-Least severe</p> <p>-First signal that the body is having trouble with heat.</p>	<p>-moderately severe.</p> <p>-more severe than heat cramps</p>	<p>-Least common.</p> <p>-Most severe.</p> <p>-SERIOUS MEDICAL EMERGENCY</p>
Symptoms			
Who does it affect?	Can be anyone!	Usually athletes, firefighters, construction workers, and factory workers.	Those who ignore the signs of heat cramps and heat exhaustion.
CARE	<p>-Move the person to a cooler place.</p> <p>-Give cool water to drink.</p> <p>-Lightly stretch the muscle and gently massage the area.</p>	<p>-Move person to a cooler environment.- Loosen or remove clothing.</p> <p>Fan the person.</p> <p>-Get the person into circulating air while applying wet towels.</p> <p>-If the person is conscious, give small amounts of cool water to drink.</p> <p>-Call 9-1-1.</p>	<p>-Call 9-1-1 immediately.</p> <p>-Give care for heat exhaustion until help arrives.</p>

COLD-RELATED INJURIES

	FROSTBITE	HYPOTHERMIA
PICTURE	 An illustration of a hand with frostbite on the fingers. The fingers are white and numb. The text 'Frostbite of fingers' is written below the hand. The ADAM logo is at the bottom right.	 An illustration of a thermometer with a red bulb, surrounded by snowflakes, representing low temperature.
What is it?		
Severity	Depends on the air temperature, length of exposure and the wind.	Can be severe. The air temperature does not have to be below freezing for someone to develop hypothermia.
What can it lead to?	Can lead to the loss of fingers, hands, arms, toes, feet and legs.	If untreated or rewarming does not occur... death.
SYMPTOMS	<ul style="list-style-type: none"> -Lack of feeling in the affected area. -Skin appears waxy -Cold to the touch -Discolored (flushed, white, yellow or blue) 	<ul style="list-style-type: none"> Shivering Numbness Glass stare Indifference Loss of consciousness
CARE	<ul style="list-style-type: none"> -Remove wet clothing and jewelry from the affected area. -Soak the frostbitten area in warm water. NOT HOT. -Cover with dry, sterile dressing. Do not rub the frostbitten area. -Check ABC's and care for shock. -Do not rewarm a frostbitten part if there is a danger of it freezing again. 	<ul style="list-style-type: none"> -Gently move the person to a warm place. -Check ABC's and care for shock -Remove wet clothing and cover the person with blankets and plastic sheeting to hold in body heat. -Carefully monitor use of heating pads and hot water bottles so that the person is not unintentionally burned. -Warm the person slowly and handle the person with care.

BITES AND STINGS

INSECT BITES	
SIGNALS	CARE
<ul style="list-style-type: none"> -Stinger may be present -Pain -Swelling -Possible allergic reaction 	<ul style="list-style-type: none"> -Remove stinger -Wash wound -Cover -Apply a cold pack -Watch for signals of allergic reaction

MARINE LIFE STINGS	
SIGNALS	CARE
<ul style="list-style-type: none"> -Possible marks -Pain -Swelling -Possible allergic reaction 	<ul style="list-style-type: none"> -If jellyfish- soak area in vinegar. -If stingray- soak area in non-scalding hot water until pain goes away. -Call 9-1-1 if necessary.

SPIDER BITES/SCORPION STING	
SIGNALS	CARE
<ul style="list-style-type: none"> -Bite mark -Swelling -Pain -Nausea and Vomiting -Trouble breathing/swallowing 	<ul style="list-style-type: none"> -Wash wound -Apply a cold pack -Get medical care to receive antivenin -Call 9-1-1 if necessary.

SNAKE BITES	
SIGNALS	CARE
<ul style="list-style-type: none"> -Bite mark -Pain 	<ul style="list-style-type: none"> -Call 9-1-1 -Wash wound -Keep bitten part still and lower than the heart. -Apply an elastic roller bandage. (for coral snakes only)

ANIMAL BITES	
SIGNALS	CARE
<ul style="list-style-type: none"> -Bite mark -Bleeding 	<ul style="list-style-type: none"> -If bleeding is minor, wash wound. -Control bleeding. -Apply triple antibiotic ointment. -Cover -Get medical attention if you suspect rabies or is bleeding continues. -Call EMS or animal control center.

LYME DISEASE & TICKS

What is Lyme Disease?

TICKS:

Not all ticks carry Lyme disease.

Ticks can attach to you without you even knowing.

Adult deer ticks are only as large as a grape seed.

Because they are so small, tick bites are usually painless.

SIGNALS OF LYME DISEASE:

-

-Can spread up to 7 inches across.

-The rash can look like a bulls-eye.

-Fever

-Headache

-Weakness or joint pain

-Very similar to symptoms of the flu.

What do I do if I find a tick on me?

-Remove tick with tweezers. If you do not have tweezers, remove with COVERED hands.

-Do not try to burn a tick.

-Once tick is removed, wash area immediately with soap and water.

-Apply ointment to prevent infection.

-If you cannot remove tick, seek medical attention!

ANAPHYLAXIS

DEFINITION:

A person can die from anaphylactic shock within one minute of exposure to antigen (foreign substance causing allergic reaction).

SIGNALS OF ANAPHYLAXIS:

- Usually occurs suddenly, within seconds or minutes of contact to antigen.
- Skin or area of the body usually turns red and swells.
- Other signals include:
 - hives
 - itching
 - rash
 - weakness
 - nausea
 - stomach cramps
 - vomiting
 - dizziness
 - trouble breathing
- Low blood pressure and shock can accompany these symptoms.

CARE FOR ANAPHYLAXIS

If you suspect anaphylaxis,

- Call 9-1-1 immediately.
- Check the airway for breathing.
- Help the person into a comfortable position for breathing.
- Administer auto injector.
- Monitor ABC's.

Assisting with an Epi Pen Auto-Injector

Determine whether the person has already taken epinephrine or an antihistamine. If so, DO NOT administer another dose unless directed by EMS.

Check the label to confirm prescription is for the intended person.

Check the expiration date. If expired, DO NOT USE.

You do not need to remove clothing to administer an EPI pen.

STEP 1	
STEP 2	Grasp auto injector firmly in your fist, and pull off the safety cap with your other hand.
STEP 3	Hold the (black) tip (needle end) near the person's outer thigh so that the auto-injector is at a 90 degree angle to the thigh.
STEP 4	
STEP 5	Hold the auto injector firmly in place for _____, then remove it from the thigh and massage the injection site for several seconds.
STEP 6	Give the used auto injector to EMS personnel when they arrive.



BACKBOARDING

WHEN TO SUSPECT A HEAD, BACK, OR NECK INJURY:

IF YOU THINK THAT A PERSON HAS A HEAD, NECK, OR BACK INJURY-

CALL 9-1-1, or the local emergency number.
While you are waiting, the best care you can provide is to minimize movement of the person's head and spine.
Place your hands on both sides of the person's head and gently hold the person's head in line with the body, IN THE POSITION YOU FOUND IT IN! DO NOT MOVE!
DO NOT remove a helmet unless necessary for the airway.

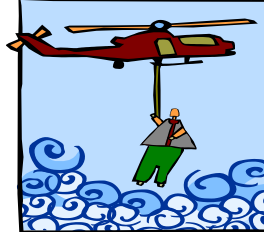
APPLYING OXYGEN

Why are you applying oxygen?

When should you apply the oxygen?

Steps to applying oxygen:

FINAL ASSESSMENT



Congratulations for being accepted as a new member of the Idlewood County Rescue Squad!

Throughout history the following situations have commonly occurred and posed threats to the lives of outdoor enthusiasts and other visitors within Idlewood County. Injuries are the leading cause of death for all ages.

Members of the Idlewood County Rescue Squad have the following responsibilities:

1. Minimize these life-threatening situations from occurring by reviewing wilderness first aid and safety skills with outdoor groups.
2. Search and Rescue Missions

This session of the course will help members review and develop their first aid and safety skills. This will help them provide better instruction to their expedition groups and remedy life-threatening situations during search and rescue missions.

1. Heat-related emergencies
2. Cold-related emergencies
3. Asthma
4. Burns
5. Wounds
6. Anaphylaxis
7. Bleeding and Shock
8. Sudden Illnesses
9. Injuries to muscles, bones, and joints and Splinting techniques
10. Poisoning

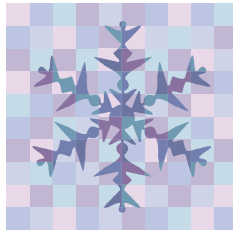
EMERGENCY SITUATIONS



- 1) It is a hot 95 degree day within Idlewood's Great Neshaminy Desert, a group of four hikers get stranded without water and without protection from the sun. Your rescue squad gets the distress call at 2:00 PM in the afternoon.
 - What are the three (3) conditions that may result from this over-exposure to heat?

 - What care would you provide for each of the three (3) above situations?

EMERGENCY SITUATIONS



2) At 5:00 PM temperatures are hovering at the 30 degree mark. Your rescue squad finally reaches the stranded group of climbers on Mt. Hood, but the weather has taken a turn for the worse and you're whole group is now stranded in white-out conditions.

- What are the two (2) conditions that may result from this over-exposure to cold?

- What care would you provide for each of the two (2) above situations?

EMERGENCY SITUATIONS



- 3) An emergency call comes into the rescue squad from a backpacker whose partner can not breathe normally. He knows his hiking partner suffers from a mild case of asthma and always carries his two (2) inhalers on adventures. This hiker needs the squad to explain the following in order to help his partner:
- What is happening during this asthma attack?
 - What are some “triggers” that may have caused this attack?
 - Which inhaler should the hiker administer to his partner (long-term medication or short-term medication)?
 - What steps does he need to follow to administer the inhaler?

EMERGENCY SITUATIONS



- 4) Members of our rescue squad have experienced both types of wounds (open and closed). For you to be an effective member of the rescue squad, you must be able to identify the different wounds and the care that needs to be provided for each.
- A climber slipped from the cliff face and smashed her back against the wall. Explain the care you would provide for her **closed wound** to ensure her safety?
 - Fly-fishermen commonly acquire four (4) different types of **open wounds**. Identify these wounds and describe to the fisherman how to provide care for **minor** open wounds and **major** open wounds should such a case arise in the back-country.
 - **Infection** can become a life or death situation under these circumstances. How can you tell if a wound is becoming infected and what care would you provide to treat this situation?

EMERGENCY SITUATIONS



- 5) Members of our rescue squad have seen different types of burns throughout their experiences here in Idlewood County. For you to better help people in need, you must be able to identify the different burns and the care that needs to be provided for each.
- Identify the three (3) different types of burns and how to care for each.
 - A hiker last year fell onto her trekking pole and it became impaled into her leg. Describe the care that you would have provided had you been the first responder.
 - While a fisherman was filleting his catch for the day, he accidentally severed his pointer finger on his left hand. Explain the care that he should have been taken to try to save his finger.

EMERGENCY SITUATIONS



- 6) You are stationed at Neshaminy High School as part of their School Crisis Team. You receive a call from the cafeteria telling you that a student is having an allergic reaction known as anaphylactic shock. You know the student is allergic to peanuts, so you bring the student's epinephrine auto-injector.
- What signals do you expect to see when you arrive at the scene?
 - Explain the steps you would follow to assist with an epinephrine auto-injector.

EMERGENCY SITUATIONS



7) Our rescue squad gets a call from the south side of Idlewood County about a possible mountain lion bite. The park rangers on duty were able to stop the attack, but the camper is bleeding severely.

- What steps would you follow in an attempt to control his bleeding?

- What signals do you see that tell you he is in shock?

- What will you do to care for his shock condition?

EMERGENCY SITUATIONS



8) Some of the emergency calls that the Idlewood County Rescue Squad receives are due to sudden illnesses (fainting, diabetes, seizures, and stroke).

- Explain the care that you would provide for each of the following situations:

Fainting:

Diabetes:

Seizures:

Stroke:

EMERGENCY SITUATIONS



- 9) Many sections of the trail and river system in Idlewood County's Wilderness Area are extremely rough and rugged. Broken legs and ankles are common emergencies that occur due to this terrain. We must be experts in dealing with these situations if we want to continue to have the most efficient rescue squad in the nation.
- Describe how you would apply the following types of splints on a broken tibia and fibula (lower leg):

Anatomic Splint:

Soft Splint:

Rigid Splint:

EMERGENCY SITUATIONS



10) As we know if a person is expected to have some type of substance overdose we should call the Poison Control Center and 911. People can be victims of various forms of poison when spending time in Idlewood County's Wilderness Area.

- According to our manual, some of the possible bites/stings that could pose problems for park users are insect, spider, and snake bites. What care would you provide for each?

Insect:

Spider:

Snake:

- One of our rescue squad members was bitten by a small deer tick. How should he remove the tick?
- It is now 4 weeks later and he thinks that he may be suffering from Lyme's Disease. He doesn't know the signs and asks you to identify them for him:

