

The **emergency medical services (EMS) system** is . . .

A network of professionals linked together to provide the best care for people in all types of emergencies

Your role in the EMS system includes 4 basic steps. (pg 5)

- 1) Recognizing that an emergency exists
- 2) Deciding to take action
- 3) Activating the EMS system
- 4) Giving care until EMS personnel take over

### **RECOGNIZING AN EMERGENCY EXISTS**

Sometimes it is obvious that an emergency exists.

Examples include: a scream/cry for help, a noxious or unusual odor, or the sight of someone bleeding severely or lying motionless on the ground

But sometimes, emergencies are more difficult to notice.

Such as: A slight change in a person's normal appearance/behavior, or an unusual silence

Signs of an emergency can include (Box1-3 pg7)

#### **Unusual Sounds**

Such as:

- Screaming, moaning, yelling, or calls for help
- Sudden, loud noises such as breaking glass, crashing metal, or screeching tires
- A change in the sound made by machinery or equipment
- Unusual silence

#### **Unusual Sights**

Such as:

- A stopped vehicle on the roadside or a car that has run off the road
- Downed electrical wires
- Sparks, smoke, or fire
- A person who collapses or is lying motionless

- Signs or symptoms of illness or injury, such as profuse sweating for no apparent reason, or an uncharacteristic skin color

### **Unusual Odors**

Such as:

- A foul or unusually strong chemical odor
- The smell of smoke
- The smell of gas
- An unrecognizable odor
- An inappropriate odor, including a sickly-sweet odor or on a person's

breath

### **Unusual Behaviors**

Such as:

- Confusion in a person who is normally alert
- Unusual drowsiness
- Personality or mood changes

## **DECIDING TO ACT**

Once you have recognized that an emergency exists, you must now take action. Your decision to act should be guided by your own values & your knowledge of the risks at hand.

There are many fears & concerns why people hesitate to help in an emergency situation (pg 7).

Some of the major factors include:

#### **1) Being uncertain that an emergency actually exists**

\*If you are not sure what to do, always err on the side of caution and call 911.

#### **2) Being afraid of giving the wrong care or inadvertently causing the person more harm**

\*Being trained in basic first aid can give you the confidence & knowledge to respond correctly

#### **3) Assuming that the situation is already under control**

\*Although there may be a crowd gathered, it is very likely that no one will take action. This is called the “**Bystander Effect**”.

#### 4) **Squeamishness related to unpleasant sights, sounds, or smells**

\*Many people are uncomfortable around blood & other body fluids. Remember, to relax and take a deep breath before beginning. Or you can always help in other ways such as calling 911, or bringing necessary equipment to the scene.

#### 5) **Fear of catching a disease**

\*Although we worry about it, the chance of catching a disease through first aid is VERY LOW. Using latex-free gloves or a breathing barrier can reduce the risk even further.

#### 6) **Fear of being sued.**

\*Lawsuits against **lay responders** (non-professionals)

Are highly unusual & rarely successful. All states

Have developed the **Good Samaritan Laws**.

This law protects people against claims of negligence when they give emergency aid in good faith, using **common sense**, without accepting anything in return.

They were developed to encourage people to help in emergency situations without the fear of being sued.

These laws may

Not protect the lay provider if it is found that they

- 2) Acted in a “non-prudent” way
- 3) Grossly negligent or reckless
- 4) Abandoned the person after starting
- 5) Performed actions they are not trained in

## **ACTIVATING THE EMS SYSTEM**

The quicker the system is activated by calling 911, the sooner the emergency personnel arrive. The sooner they arrive the better the chance for a positive outcome for the victim.

When should I call 9-1-1? (Box 1-5)

Emergency **situations** such as:

- An injured or ill person who needs medical attention and cannot be moved

- Fire or explosion
- Downed electrical wires
- Swiftly moving or rapidly rising flood waters
- Drowning
- Presence of poisonous gas
- Serious motor-vehicle collision

Emergency **conditions** such as:

- Unresponsiveness or an altered level of consciousness, such as drowsiness or confusion
- Breathing problems (trouble breathing or no breathing)
  - Chest pain, discomfort or pressure lasting more than a few minutes that goes away and comes back or that radiates to the shoulder arm, neck, jaw, stomach, or back
  - Persistent abdominal pain or pressure
  - Severe external bleeding
  - Vomiting blood or passing blood
  - Severe (critical) burns (deep into the skin)
  - Suspected poisoning that appears to be life threatening
  - Seizures
  - Signs or symptoms of stroke (F.A.S.T.)
  - Suspected or obvious injuries to the head, neck, or spine
  - Suspected or obvious broken bone

## **GIVING HELP UNTIL CARE ARRIVES (pg10)**

In general, you should continue to give care to the injured/ill person until:

- Another trained responder or EMS personnel take over
- You are too exhausted to continue
- The scene becomes unsafe

## CONSENT

Before giving care, you must obtain **consent** from the person. You should give the following information to the victim

- State your name
- State the type and level of training that you have
- Explain what you think is wrong
- Ask if you may help

## WHAT IF?

unconscious	Implied (given)
infant/child	Parent/guardian will give consent (If none present, consent is implied)
they refuse	You must honor their wishes (leave the scene and call 911)

## TAKING ACTION: THE EMERGENCY ACTION STEPS (pg16)

There are 3 simple steps to help you know what to do in an emergency. These are:

- 1) Check the scene and the person
- 2) Call 911 or the designated emergency number
- 3) Care for the person

## CHECK

- 1) Check the Scene & determine:
  - is the scene safe
  - can you figure out what happened
  - how many victims are there
  - what is your initial “gut feeling” of what happened?
    - How do they act? (alert, confused, sleeping)
    - How do they look? (pale, ashen, flushed)
    - Moving or not?
    - Any immediately noticeable injuries?
  - is there anyone else around to help?
    - do they know what happened?
    - do they know first aid as well?
    - other jobs they can do include:
      - May be able to provide valuable information

- Call 911
- Leading EMS to the scene
- Getting needed items

2) Check the victim

Check the person's "ABCs"

- A- Airways
- B- Circulation
- C- Breathing

\*\*See notecard for specific steps

## CALL

Call 9-1-1 & be prepared to provide them with the following Information:

- 1) The location of the emergency
- 2) The nature of the emergency
- 3) The telephone number of the phone being used
- 4) A description of what happened
- 5) The number of injured or ill people
- 6) What help, if any, has been given so far, and by whom

\*Remain on the phone with the dispatcher as they may need more information. They are also trained in FA/CPR & may be able to assist you in giving care.

## CARE

Proceed to give care until EMS arrives. Follow these guidelines:

- Do no further harm
- Monitor the person's breathing and level of consciousness
- Help the person rest in the most comfortable position
- Keep the person from getting chills or overheated
- Reassure the person by telling them you will help, and EMS has been called
- Give care consistent with your knowledge and training as needed, and watch

for changes in the person's conditions

\*It is advised that you do not move a victim to give care. However, under the following conditions it would be appropriate to move them:

- 1) You must move the person to protect them from immediate danger

2) You must move the person to reach another person who may have a more serious injury or illness

3) You must move the person to give proper care

Choking occurs when the airway becomes either partially or completely blocked by a foreign object, such as a piece of food or small toy; by swelling the mouth or throat; or by fluids, such as vomit or blood.

#### Signs & Symptoms of Choking

- ~ Typically has a panicked, confused, or surprised look on their face
- ~ They may or may not place their hands on or around their throat
- ~ Their skin may appear flushed (red), but will become pale or bluish in color as the body loses oxygen.

#### First Aid for Choking

- ~ If they can speak or cry and are coughing forcefully . . .
  - \* If they can speak/cry/cough, they are getting enough oxygen
- ~ If they are making high-pitched (wheezing) noises or coughing weakly, or unable to speak/cry their airway is closed and they can quickly become unresponsive.
  - \* Have someone . . .
  - \* Immediately begin first aid (see guidelines below)

#### CARING FOR A CHOKING VICTIM

ADULT (pg 63)	Combination of 5 back blows & 5 abdominal thrusts
CHILD (pg 63)	*Same as adult
INFANT (pg 66)	Combination of 5 abdominal thrusts & 5 chest thrusts



## **ADULT/CHILD**

Giving **back blows** (adult/child):

- ~ Place yourself . . .
- ~ Place one arm . . .
- ~ Bend the victim . . .
- ~ Firmly strike (5 TIMES) between the shoulder blades with the heel of your other hand

\*BE SURE EACH BACK BLOW IS A SEPARATE ATTEMPT TO  
DISLODGE THE OBJECT

Giving **abdominal thrusts (Heimlich Maneuver)** (adult/child):

- ~ Stand . . .
- ~ If possible, place one of your feet . . .
- ~ Wrap your arms around the person's wrist
- ~ Place one finger on the person's navel
- ~ Make a fist with your other hand, thumb side just above your fingers
- ~ Cover fist with your other hand.
- ~ Give (5) back blows, inward & (5) abdominal thrusts into the abdomen

\*BE SURE EACH THRUST IS A SEPARATE ATTEMPT TO DISLODGE  
THE OBJECT

Continue this pattern until the person can cough forcefully, speak, cry, or breathe.  
Or they become unresponsive (call 9-1-1 immediately if this happens)

## **INFANT (pg 66)**

Giving **back blows** (infant)

- ~ Get infant into back blow position by placing one forearm on the infant's back, cradling the back of the infant's head with your hand.
- ~ Place your other forearm along the infant's front, supporting the infant's jaw with your thumb & fingers.

\*Be careful not to cover the infant's mouth with your hand.

- ~ Turn infant so they are face-down along your forearm.
- ~ Lower your arm onto your thigh so the infant's head is lower than their chest.

~ Firmly strike (5 times) between the infant's shoulder blades. Keep your fingers up.

**\*BE SURE EACH BACK BLOW IS A SEPARATE ATTEMPT TO DISLODGE THE OBJECT**

#### Giving **chest thrusts** (infant)

- ~ Place one hand on infant's back, cradling the head with your hand.
- ~ Continue supporting the infant's jaw with other hand
- ~ Turn the baby over so that they are now face-up along your forearm.

~Lower your arm onto your thigh so that the infant's head is lower than their chest

~ Place the pads of two fingers in the center of the chest, on the breastbone.

~ Press down about 1.5 inches and then let the chest return to normal position

**\*BE SURE EACH THRUST IS A SEPARATE ATTEMPT TO DISLODGE THE OBJECT**

Continue this pattern until the infant can cough forcefully, cry, breathe, or they become unresponsive (call 9-1-1 immediately if this happens)

#### **SPECIAL SITUATIONS (pg 65)**

Person is too large for you to wrap arms around for abdominal thrusts	Give chest thrusts instead of abdominal thrusts. Instead of placing hands on abdomen, they are placed . . .
Pregnant	Give chest thrusts instead of abdominal thrusts
In a wheelchair	Give abdominal thrusts the same way you would if they are standing. You may need to kneel. If this makes it too difficult to give abdominal thrusts, give chest thrusts instead.
You are alone & choking	Call 9-1-1. Give yourself abdominal thrusts just as you would another person. Alternate with bending over a firm object, pressing it into your abdomen

## **KEY VOCABULARY**

These terms are in **bold** throughout the chapter.

- ~ acute illness: **an illness that strikes suddenly**
- ~ chronic illness: **an illness that a person lives with on an ongoing basis and that often requires continuous treatment to manage.**
- ~ respiratory distress: **Difficulty breathing**
- ~ hyperventilation: **Breathing that is faster and shallower than normal**
- ~ respiratory arrest: **Absence of breathing**
- ~ asthma: **Chronic illness in which triggers cause inflammation and narrowing of the airways**
- ~ anaphylaxis: **Life threatening allergic reaction**
- ~ epinephrine auto injector (EpiPen): **A needle that injects Epinephrine, a drug that slows or stops the effects of anaphylaxis**
- ~ antihistamine: **Medication that counteracts the effects of histamine**
- ~ diabetes: **Chronic condition characterized by the body's inability to process glucose in the bloodstream**
- ~ insulin: **Hormone that causes glucose to be moved from the bloodstream into the cells, where it is used for energy**
- ~ hypoglycemia: **Low blood glucose levels**
- ~ hyperglycemia: **High blood glucose levels**
- ~ seizure: **The result of abnormal electrical activity in the brain, usually in pulses**
- ~ epilepsy: **A chronic illness where it is common for the person to get seizures**
- ~ stroke: **Blood to part of the brain is interrupted by a clot**

## **Signs & Symptoms of Sudden Illness**

- ~ Trouble with speech and language, including slurring of words, being unable to form words or being unable to understand what others are saying
- ~ Drooling or difficulty swallowing
- ~ Drooping of the features on one side of the face (for example, the eyelid and the corner of the mouth)
- ~ Trouble seeing in one or both eyes
- ~ Weakness
- ~ Paralysis or numbness of the face, arms/legs, especially on one side of the body
- ~ A sudden, severe headache
- ~ Dizziness or loss of balance
- ~ Confusion

### **First Aid for Sudden Illness**

- ~ Monitor the persons breathing and level of consciousness
- ~ Help the person rest in the most comfortable position
- ~ Keep them from getting chilled or overheated
- ~ Reassure the person that you will help and that EMS personnel have been called
- ~ Give care and watch for changes in the person's condition

### **Signs & Symptoms of Respiratory Distress**

- ~ The person may feel like they cannot get in enough air and gasp for breath
- ~ Because they are struggling to breathe, speaking in complete sentences may be difficult
- ~ You may hear wheezing, gurgling, or high-pitched noises as they try to breathe.
- ~ Their skin may feel moist or cool, and it may appear pale
- ~ Lack of oxygen may make them feel dizzy or light-headed.

### **First Aid Care for Respiratory Distress**

- \*If a person is having trouble breathing, do not wait to see if their condition improves!  
Call 9-1-1 immediately.
- ~ If you know the cause of the respiratory distress (example: hyperventilation), and the person carries medication, assist them in getting/taking the medication
- ~ Encourage them to sit down and lean forward. This position helps make breathing easier.  
Providing reassurance can reduce anxiety which also helps make breathing easier
- ~ If they are responsive, gather additional information. Try to phrase your questions as simple yes or no questions so they can nod or shake their head.
- ~ Be prepared to perform CPR or use an AED if they become unresponsive.

## **ASTHMA**

### **Signs & Symptoms of an Asthma Attack**

- ~ Wheezing or coughing
- ~ Rapid, shallow breathing
- ~ Sweating
- ~ Being unable to talk without stopping for a breath in between every few words
- ~ Feelings of tightness in the chest or being unable to get enough air into the lungs
- ~ Anxiety and fear

### **First Aid for an Asthma Attack**

- ~ Have them take their medication (inhaler)
- ~ If symptoms do not improve after their medication, call 9-1-1
- ~ Stay with them and monitor their condition

## **ALLERGIC REACTIONS and ANAPHYLAXIS**

### **Signs & Symptoms of Allergic Reactions & Anaphylaxis**

- ~ Trouble breathing
- ~ Swelling of the face, neck, tongue, or lips
- ~ A feeling of tightness in the chest or throat
- ~ Skin reactions (such as hives, itchiness, or flushing)

### **First Aid for Allergic Reactions & Anaphylaxis**

- ~ Call 9-1-1 immediately
- ~ Help them to use their medication (typically an EpiPen)
- ~ Stay with them and monitor their condition

## **Diabetic Emergencies**

### **Signs & Symptoms of Diabetic Emergencies**

- ~ They will seem generally ill
- ~ They may feel dizzy, shaky, have a headache, or cool/clammy skin
- ~ Their behavior may also change
- ~ If they are experiencing *hyperglycemia* their breath may have a fruity or sweet smell.
- ~ Severe *hypoglycemia* or *hyperglycemia* can result in confusion, seizures, or loss of consciousness

### **First Aid for Diabetic Emergencies**

- ~ If you find them unresponsive, in and out of consciousness, or having a seizure, call 9-1-1 immediately.
- ~ If they are awake and you know they are a diabetic (or they can tell you), help them by giving them some form of sugar, preferably in liquid form.

## **Seizures**

- ~ There are different types of seizures:
  - *Grand mal*: the person loses consciousness and has convulsions
  - *Absence*: the person experiences a brief, sudden lapse of consciousness, causing the person to momentarily become very quiet and have a blank stare.
  - *Epilepsy*: they may experience an *aura* (an unusual sensation) before the start of the seizure, giving them time to tell someone or sit before it starts

### **First Aid for Seizures**

- ~ Do not try to hold the person down or stop the seizure from happening
- ~ Take steps to prevent injury
  - Move furniture or other items
  - Note the time the seizure starts
  - Stay with the person

- ~ If the person has a known seizure disorder, it may not be necessary to call 9-1-1. However, under some circumstances, you should call. These include
- The seizure lasts for more than 5 minutes, or the person has multiple seizures in a row
  - The person was injured as a result of the seizure
  - The person is unresponsive and not breathing or only gasping after the seizure
  - The person is pregnant or has diabetes
  - The person is a young child or infant and the seizure was brought on by a high fever
  - The person is elderly
  - This is the person's first seizure, or the cause of the seizure is unknown
  - The seizure took place in the water

### **Fainting**

If a person suddenly loses consciousness but then "comes to" after a minute, they may have simply fainted

#### **Signs & Symptoms of Fainting**

A person who is about to faint often becomes pale, begins to sweat, and may feel weak or dizzy.

#### **First Aid for Fainting**

It may be possible to prevent fainting by having the person sit down with their head near their knees or lie flat down on their back. If they do faint, check them for responsiveness and normal breathing. If these are normal, check them from head to toe for injuries that may have happened. If there are no injuries, place them in the recovery position (on their side) and loosen any tight clothing.

### **Stroke**

A stroke occurs when blood flow to a part of the brain is interrupted by a clot

#### **Signs & Symptoms of a Stroke**

- ~ Trouble with speech and language, including slurring of words, being unable to form words or being unable to understand what others are saying
- ~ Drooling or difficulty swallowing
- ~ Drooping of the features on one side of the face
- ~ Trouble seeing in one or both eyes
- ~ Weakness
- ~ Paralysis or numbness of the face, especially on one side of the body
- ~ A sudden, severe headache

- ~ Dizziness or loss of balance
- ~ Confusion
- ~ Loss of consciousness

**\*\*If you suspect a Stroke, remember the acronym "FAST"**

**F: Face**

**A: Arms**

**S: Speech**

**T: Time**

### **First Aid for a Stroke**

If you think they are having a stroke, call 9-1-1 immediately. Note when the signs and symptoms first started. Stay with them until help arrives.

**KEY VOCAB**

Define each term from the pages above. Terms will be in **bold** in the reading

Shock: **a progressive, life-threatening condition in which the circulatory system fails to deliver enough oxygen-rich blood to the body's tissues and organs**

Internal bleeding: **bleeding that occurs inside the body, into a body cavity or space**

Blunt trauma: **caused by impact with a flat object or surface**

Penetrating trauma: **occurs when the body is pierced by a sharp, narrow object (such as a knife or bullet) or impaled on a sharp object (such as a piece of metal)**

Wound: **an injury that results when the skin or other tissues of the body are damaged**

Closed wound: **the surface of the skin is intact, but the underlying tissues are injured**

Bruise/contusion: **a very common type of closed wound, usually caused by blunt trauma**

Open wound: **the skin's surface is broken, and blood may come through the tear in the skin, resulting in external bleeding**

External bleeding: **bleeding that is visible on the outside of the body**

Abrasion: **occurs when something rubs roughly against the skin, causing damage to the skin's surface**

Laceration: **a cut, commonly caused by a sharp object, such as broken glass or a knife**

Avulsion: **occurs when a portion of the skin, and sometimes the underlying tissue, is partially or completely torn away**

Puncture wound: **occurs when a pointed object, such as a nail or animal's tooth, pierces the skin**

Tetanus: **a severe bacterial infection that can result from a puncture wound or a deep laceration**

Dressing: **a pad that is placed directly on a wound to absorb blood and other fluids**



Bandage: **a strip of material used to hold the dressing in place and to control bleeding**

Tourniquet: **a device placed around an arm or leg to constrict blood vessels and stop blood flow to a wound**

Hemostatic dressing: **a dressing treated with a substance that speeds clot formation**

## **SHOCK**

Signs & Symptoms of shock

- ~ Restlessness or irritability
- ~ Rapid breathing
- ~ Altered level of consciousness
- ~ Rapid, weak heartbeat
- ~ Nausea or vomiting
- ~ Excessive thirst
- ~ Pale, ashen (grayish), cool, moist, skin

If someone is showing signs & symptoms of shock, call 9-1-1 immediately.

While you are waiting for EMS to arrive:

- ~ Have them lie flat on his or her back.
- ~ Control any external bleeding.
- ~ Cover with a blanket to prevent loss of body heat.
- ~ Do not give anything to eat or drink even though they seem thirsty. This increases their risk for vomiting and aspiration.
- ~ Provide reassurance and help them rest comfortably. Anxiety can intensify stress and speed up the progression of stress.
- ~ Monitor levels of consciousness until EMS arrives.

## **INTERNAL BLEEDING**

**Internal bleeding** can be life threatening (even though we cannot see the injury). **Blunt trauma** is a common cause of internal bleeding. It can come from things such as falls, being struck by a vehicle or piece of heavy equipment, being struck by a blunt object (**such as a bat**) or being thrown into a blunt object (**such as a steering wheel**). Crushing forces (**for example, when a person's body is squeezed between two hard surfaces**) can also cause blunt trauma. **Penetrating trauma** occurs when the body is pierced by a sharp, narrow object (**such as a knife or bullet**) or impaled on a sharp object (**such as branch or a piece of metal**), can also lead to internal bleeding.

### **Signs & Symptoms of Internal Bleeding**

- ~ As a result of blood loss, they may show signs of shock
- EX:
  - ~excessive thirst
  - ~skin that feels moist
  - ~skin that looks pale or bluish
  - ~altered level of consciousness
  - ~ rapid & weak pulse
- ~ The area of the body where the blood is collecting is tender
  - ~may be brushing at the area
- ~If on a limb, the limb may be blue or extremely pale

### **First Aid for Internal Bleeding**

- ~ Call 9-1-1 immediately
- ~ Give first aid for shock (see above) until EMS arrives

### **WOUNDS**

Wounds are generally classified as either closed or open

Closed Wounds	Open Wounds
<p>Most common type of a closed wound is a <b>bruise (contusion)</b></p> <p>*They occur when blood leaks into the surrounding tissues because of damaged blood vessels</p> <p><b>SIGNS &amp; SYMPTOMS:</b></p> <ul style="list-style-type: none"><li>~The area may appear red or purple</li><li>~There may be swelling</li><li>~ Area is often painful</li></ul> <p><b>FIRST AID:</b></p> <ul style="list-style-type: none"><li>~Applying a cold pack can help decrease bleeding and reduce pain and swelling</li><li>*Be sure to wrap ice pack in thin/dry towel</li><li>~Hold in place for max 20 minutes then remove for 20 min (20/20 principle)</li><li>~ Elevating may help reduce swelling</li></ul>	<p>The four main types of open wounds are:</p> <ol style="list-style-type: none"><li>1) <b>Abrasion</b></li><li>2) <b>Laceration</b></li><li>3) <b>Avulsion</b></li><li>4) <b>Puncture Wound</b></li></ol> <p><b><u>1. Abrasions</u></b></p> <p>Caused by something rubs roughly against the skin. Often referred to as scrapes, rug burns, road rash, or turf burns. They can be very painful because the scraping of the outer skin layer exposes sensitive nerve endings. Although they don't bleed much, they are often contaminated with dirt &amp; debris. Clean thoroughly with soap and water.</p> <p><b><u>2. Lacerations</u></b></p> <p>Caused by a sharp object, such as broken glass or a knife. Can also occur when blunt force splits the skin. Deep lacerations may go through layers of fat and muscle, damaging nerves, blood vessels, and tendons. If nerves are damaged, the laceration will not be painful.</p>

Bleed may be heavy or there may be none (depending on the area).

### **3. Avulsions**

Occurs when a portion of the skin, and underlying tissue, is partially or completely torn away. Commonly caused by animal bites. They often cause significant bleeding.

### **4. Puncture Wounds**

Occurs when a pointed object such as a nail or animal's tooth pierces the skin. A gunshot wound is also considered a puncture wound. They do not usually bleed much unless a blood vessel has been damaged. They do carry a high risk of infection because penetrating object can carry pathogens deep into the body's tissues.

## **FIRST AID**

### **Minor Open Wound**

1. Put on latex-free gloves if available.
2. Apply direct pressure with a gauze pad (or other similar object) to stop the bleeding.
3. Once bleeding stops, wash the area with soap and warm water.
4. Apply a small amount of antibiotic ointment.
5. Cover the area with a sterile gauze pad and a bandage or apply an adhesive bandage.
6. When finished giving care, wash your hands with soap and water, even if you wore gloves.

### **Major Open Wound**

A major open wound (such as one that involves tissue damage or is bleeding heavily or uncontrollably) requires quick attention. Call 9-1-1 immediately and then follow the first aid steps below.

1. Put on latex-free gloves if available.
2. Cover wound with sterile gauze pad or other clean dressing.
3. Apply direct pressure (may take up to 15 minutes).
  - a. If blood soaks through, place

	<p>another dressing on top of the already existing one, do not remove anything.</p> <p>b. Do not remove saturated cloths because doing so may disrupt clot formation and restart the bleeding.</p> <p>4. Once bleeding stops, check the area of the wound <i>AWAY</i> from the heart for feeling, warmth, and color.</p> <p>5. Apply a bandage over the dressings to maintain pressure on the wound and to hold the dressing in place.</p> <p>a. The bandage should be comfortable but not too tight.</p> <p>6. Check for feeling, warmth, and color again to be sure the bandage is not too tight.</p> <p>7. Have them rest comfortably until EMS arrives and watch for signs of shock.</p>
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**“Does my wound need medical attention?” (pg 98)**

The answer is YES if:

- ~ The wound is deep or dirty
- ~ You do not know, or cannot remember when you last had a tetanus shot
  - ~ or it has been more than 5 years since your last tetanus shot

TETANUS:

- ~ the bacteria that cause tetanus are most commonly found in soil or animal manure
- ~ once in the body, the bacteria produce a powerful toxin that can cause muscle paralysis and death.

**Signs and Symptoms of Tetanus**

- ~ Muscle spasms
- ~ Stiffness

\*These often begin in the jaw and neck, resulting in difficulty to move.

### **“Do I need stitches?” (pg 98)**

In general, the following types of wounds need stitches:

- 1) Wounds that are deep or longer than ½ inch
- 2) Wounds on parts of the body where scarring could impair appearance or function
  - a) Example: face, hands, or feet
- 3) Wounds caused by human or animal bites
- 4) Wounds with jagged edges that gape open
- 5) Wounds that are bleeding heavily and uncontrollably

### **“Is my wound infected?” (pg 99)**

Proper care can lower the risk for infection. An untreated wound can cause delayed healing, infection of nearby skin (cellulitis) or infection of nearby bone (osteomyelitis) or infection throughout the body (sepsis, which can be fatal).

If you notice any of the symptoms of infection or the wound doesn't seem to be healing, seek medical attention

- 1) Increased pain, swelling, redness, or warmth in the area of the wound
- 2) Red streaks extending from the area of the wound
- 3) Pus (a thick yellow or green fluid) draining from the wound
- 4) Fever

### **APPLYING A TOURNIQUET**

In some life-threatening situations, you would apply a tourniquet instead of applying direct pressure. **Examples of such situations include:**

- 1) Severe, life-threatening bleeding that cannot be controlled using direct pressure
- 2) Type of injury makes it impossible to apply direct pressure
  - a) EX: trapped in a small space
- 3) Multiple people with life threatening bleeding/injuries
- 4) A scene that is or becomes unsafe

**How to apply the tourniquet:**

- 1) Place the tourniquet around the wounded extremity about 2 inches above the wound, avoiding the joint if possible
  - a) Be sure to be between the wound & the heart
- 2) Twist the rod until the bright red bleeding stops, then secure into place
- 3) Note & record the time you applied the tourniquet

## **APPLYING A HEMOSTATIC DRESSING**

Used when severe, life-threatening bleeding exists and standard first aid procedures are not practical. They are typically used on parts of the body where a tourniquet cannot be applied, such as the neck or torso. The dressing is applied at the site of the bleeding (possibly inside of the wound) and is used along with direct pressure.

## **OPEN WOUNDS WITH EMBEDDED OBJECTS**

If the object is large, do not remove the object (it is actually stopping the bleeding & may cause more damage if you remove it).

How to bandage:

- 1) Place several dressings around the object to begin to control blood loss
- 2) Then pack bulk dressings or roller bandages around the embedded object to keep it from moving.
- 3) Wrap with a bandage and seek medical care
- 4) Remember to watch for signs of shock

If the object is small (such as a splinter or thorn) it can usually be removed using first aid techniques (think tweezers and clean as a minor open wound). Seek medical attention if the object is deep, completely embedded in the skin or located under the nail or in the eye.

## **TRAUMATIC AMPUTATIONS**

Traumatic amputation is the loss of a body part as a result of an injury. Common causes include injuries involving power tools, farming or manufacturing equipment; motor-vehicle collisions; explosions and natural disasters. The body part might be severed cleanly from the body or ripped away as a result of being subjected to violent tearing or twist forces. Bleeding may be minimal or severe, depending on the location and nature of the injury.

### **First Aid for Traumatic Amputations**

- 1) Call 9-1-1 immediately
- 2) If the part is completely severed, try to locate it because it may be able to be reattached.
  - a) Wrap the part in sterile gauze or other clean material
  - b) Put the part into a plastic bag and seal the bag.
  - c) Keep it cool by placing it in a mixture of ice and water.
    - i) Do not place directly on ice
  - d) Give part to EMS to transport to the hospital
- 3) Control bleeding as you would for a major open wound
- 4) Watch for signs of shock.