CERTIFICATE OF APPRECIATION

THIS IS TO RECOGNISE

ASSOC. PROF. DR. MOHD. SAID NURUMAL LECTURER KULLIYYAH OF NURSING IIUM KUANTAN (EXPERIENCED EMERGENCY PRACTITIONER)

> HAS CONTRIBUTED AS A SPEAKER IN THE PROGRAMME

TO THE RESCUE!

"BASIC THEORY ON FIRST AID SKILL"

THAT WAS HELD ON 20TH MARCH 2022 MAIN AUDITORIUM KON

ORGANISED BY

KUMPULAN LATIHAN KELANASISWA MALAYSIA (KLKM) IIUM KUANTAN



NURUL NADHIRAH BINTI ISKANDAR

PROGRAM MANAGER TO THE RESCUE! KLKM IIUM KUANTAN



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To the Rescue

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Basic First Aid

Dr. Mohd. Said Nurumal Associate Professor Critical Care Nursing Department Kulliyyah of Nursing International Islamic University Malaysia Learning outcome:

a. To know the purpose and rules of first aid and the conditions that require it.

b. To know the first aid kit and the tools in it.

c. To know the types of wounds and bandages and how to stop bleeding from the mouth, nose and ears.
d. To know to treat insect bites, small animals and venomous animals.

e. To know the causes and how to treat food poisoning, chemicals and others.

f. To know the first aid treatment related to respiration system

 g. To know the application of respiratory resuscitation (CPR) techniques

h. To know the treatment for different types of fractures and sprains and how to move the injured victim.

Chain of Survival

For a person to survive



Early Early Early Access "999" First Aid/CPR Defibrillation Advanced Care You EMS on Scene

Early **Hospital**

Basic First Aid

- What Is First Aid?
 - The immediate care given to an injured or suddenly ill person.
 - DOES NOT take the place of proper medical treatment.
 - Legal Considerations
 - Implied Consent involves an unresponsive victim in a lifethreatening condition.
 - It is assumed or "implied" that an unresponsive victim would consent to lifesaving help.
 - Only perform First Aid assistance for which you have been trained.

Scene Survey

- When confronted with an accident or illness on duty it is important to assess the situation to determine what kind of emergency situation you are dealing with, for your safety, the victim's safety and that of others.
- Do a quick survey of the scene that includes looking for three elements:
 - Hazards that could be dangerous to you, the victim, or bystanders.
 - The cause (mechanism) of the injury or illness.
 - The number of victims.

Note: This survey should only take a few seconds.

Initial Assessment

- Goal of the initial assessment:
 - Visually determine whether there are life-threatening or other serious problems that require quick care.
 - Breathing
- Burn

• Heart Attack

• Bleeding

Choking

• Fractures

- Shock
- Determine if victim is conscious by tap and shout. Check for ABC as indicated:
 - A = Airway Open? Head-tilt/Chin-lift.
 - **B** = **Breathing?** Look, listen, and feel.
 - **C** = **Circulation?** Check for signs of circulation.

Note: These step-by-step initial assessment should not be changed. It takes less than a minute to complete, unless first aid is required at any point.

Victim Assessment Sequence

- Assessment Sequence Components:
 - If victim is responsive
 - Ask them what injuries or difficulties they are experiencing.
 - Check and provide first aid for these complaints as well as others that may be involved.
 - If victim is not responsive (Unconscious or incoherent).
 - Observe for obvious signs of injury or illness:
 - Check from head to toe
 - Provide first aid/CPR for injuries or illness observed.

First Aid Kit Contents

First Aid Kits

- Every office, factory, home and school should have an accessible first aid kit
- Every kit should have the following items
 - First aid book
 - Band aids of various sizes
 - Elastic bandages
 - Gauze and adhesive tape
 - Antiseptic wipes (alcohol wipes) and cotton wool
 - Safety pins and tweezers
 - Scissors
 - Latex gloves
 - Calamine lotion
 - Clinical thermometer
 - Analgesic tablets (aspirin)



Bleeding Control

- Control Methods For External Bleeding:
 - Direct pressure stops most bleeding.
 - Wear medical exam gloves (if possible)
 - Place a sterile gauze pad or a clean cloth over wound
 - Elevation injured part to help reduce blood flow.
 - Combine with direct pressure over the wound (this will allow you to attend to other injuries or victims).
 - If bleeding continues, apply pressure at a pressure point to slow blood flow.
 - Pressure point locations:
 - Brachial (Top of elbow)
 - Femoral (Inside upper thigh)

Bleeding Control Cont.

Control Methods For Internal Bleeding:

- Signs of internal bleeding:

- Bruises or contusions of the skin
- Painful, tender, rigid, bruised abdomen
- Vomiting or coughing up blood
- Stools that are black or contain bright red blood

– What to Do:

For severe internal bleeding, follow these steps:

- Monitor ABC's (Airway Breathing Circulation)
- Keep the victim lying on his/her left side. (This will help prevent expulsion of vomit from stomach or allow the vomit to drain and also prevent the victim from inhaling vomit).
- Treat for shock by raising the victim's legs 8" 12"

• Seek immediate medical attention

Shock

- Shock refers to circulatory system failure that happens when insufficient amounts of oxygenated blood is provided for every body part. This can be as the result of:
 - Loss of blood due to uncontrolled bleeding or other circulatory system problem.
 - Loss of fluid due to dehydration or excessive sweating.
 - Trauma (injury)
 - Occurrence of an extreme emotional event.

Shock Cont.

- What to Look For
 - Altered mental status
 - Anxiety and restlessness
 - Pale, cold, and clammy skin, lips, and nail beds
 - Nausea and vomiting
 - Rapid breathing and pulse
 - Unresponsiveness when shock is severe

Shock Cont.

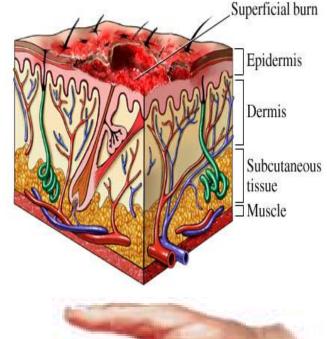
- What to Do
 - After first treating life-threatening injuries, such as breathing or bleeding, the following procedures shall be performed:
 - Lay the victim on his or her back
 - Raise the victim's legs 8" 12" to allow the blood to drain from the legs back to the heart.



 Prevent body heat loss by putting blankets and coats under and over the victim

Burns

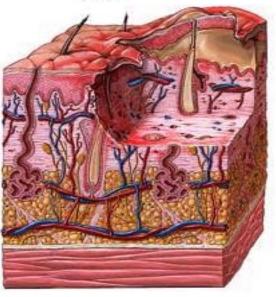
- Burns have been described as:
 First-degree burns (Superficial)
 - Only the skin's outer layer (epidermis) is damaged.
 - Symptoms include redness, mild swelling, tenderness, and pain.
 - Usually heals without scarring.
 - What to Do:
 - Immerse in cold water 10 to 45 minutes or use cold, wet cloths.
 - » Cold stops burn progression
 - » May use other liquids
 - Aloe, moisturizer lotion





- Second-degree burns (Partial Thickness)
 - Epidermis and upper regions of dermis are damaged.
 - Symptoms include blisters, swelling, weeping of fluids, and severe pain.
 - What to Do:
 - Immerse in cold water / wet pack
 - Aspirin or ibuprofen
 - Do not break blisters
 - May seek medical attention





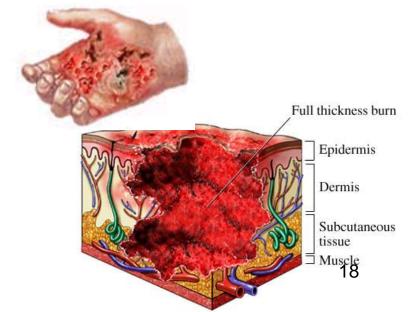
2nd degree burn₁₇

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- Third-degree burns (Full Thickness)
 - Severe burns that penetrate all the skin layers, into the underlying fat and muscle.
 - Symptoms include: the burned area appears gray-white, cherry red, or black; there is no initial edema or pain (since nerve endings are destroyed)

– What to Do:

- Usually not necessary to apply cold to areas of third degree
- Do not apply ointments
- Apply sterile, non-stick dressings (do not use plastic)
- Check ABC's
- Treat for shock
- Get medical help



- Burn injuries can be classified as follow:
 - Thermal (heat) burns caused by:
 - Flames
 - Hot objects
 - Flammable vapor that ignites
 - Steam or hot liquid
 - What to Do:
 - Stop the burning
 - Remove victim from burn source
 - If open flame, smother with blanket, coat or similar item, or have the victim roll on ground.
 - Determine the depth (degree) of the burn



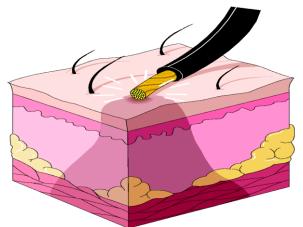


- Chemical burns
 - The result of a caustic or corrosive substance touching the skin caused by:
 - Acids (batteries)
 - Alkalis (drain cleaners- often more extensive)
 - Organic compounds (oil products)

- What to Do:
 - Remove the chemical by flushing the area with water
 - Brush dry powder chemicals from the skin before flushing
 - Take precautions to protect yourself from exposure to the chemical
 - Remove the victim's contaminated clothing and jewelry while flushing with water
 - Flush for 20 minutes all burns (skin, eyes)
 - Cover the burned area with a dry, sterile dressing
 - Seek medical attention

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- Electrical Burns
 - A mild electrical shock can cause serious internal injuries.

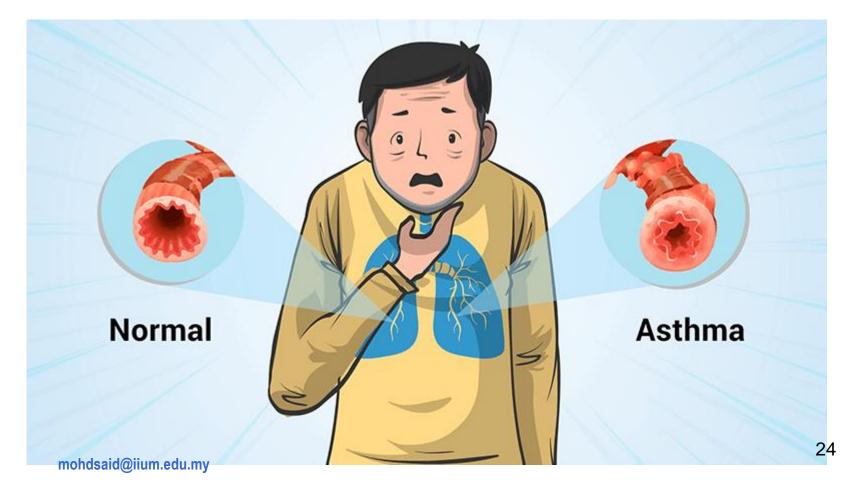


- There are three types of electrical injuries:
 - Thermal burn (flame) Objects in direct contact with the skin are ignited by an electrical current.
 - Mostly caused by the flames produced by the electrical current and not by the passage of the electrical current or arc.
 - Arc burn (Flash) Occurs when electricity jumps, or arcs, from one spot to another.
 - Mostly cause extensive superficial injuries.
 - True Electrical Injury (contact) Occurs when an electric current truly passes through the body.

- What to Do:
 - Make sure the scene is safe
 - Unplug, disconnect, or turn off the power.
 - If that is impossible, call the power company or EMS for help.
 - Do not contact high voltage wires
 - Consider all wires live
 - Do not handle downed lines
 - Do not come in contact with person if the electrical source is live
 - Check ABCs. (Airway Breathing Circulation)
 - If the victim fell, check for a spinal injury.
 - Treat the victim for shock by elevating the legs
 8" 12" if no spinal injury is suspected.
 - Seek medical attention immediately.

Common Respiratory Problem

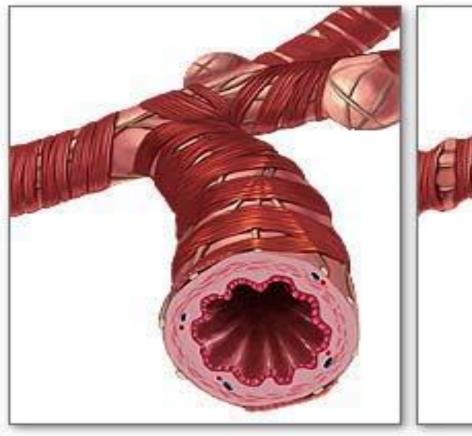
Asthma



Airway obstruction

Normal bronchiole

Asthmatic bronchiole





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ASSESSING THE SEVERITY OF AN ASTHMA ATTACK

MILD

- Cough
- Soft wheeze
- Minor difficulty breathing
- No difficulty speaking in sentences

MODERATE

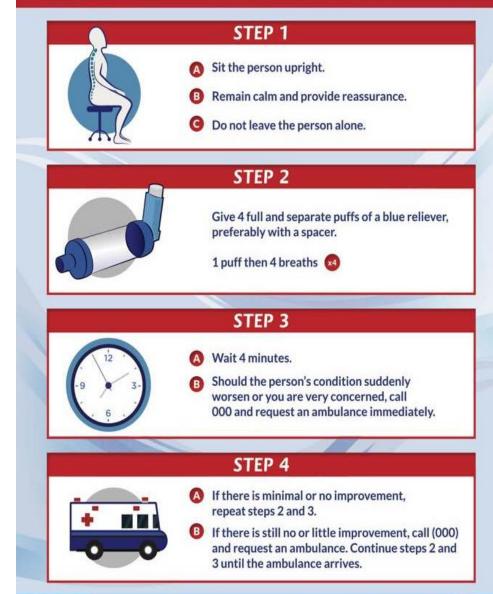
- Persistent cough, loud wheeze
- Obvious difficulty breathing
- Able to speak in short sentences

SEVERE

- Very distressed, anxious
- Gasping for breath
- Able to speak only a few gasping words in only one breath
- Pale and sweaty
- May have blue lips



Action Plan for Acute Asthma Attacks



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Action Plan for Acute Asthma Attacks



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Choking

What is it?

- Obstruction in the airway.
- General Precaution



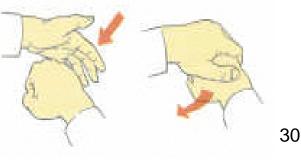
- If someone is coughing, leave the person alone.
 - Do not perform the Heimlich Maneuver.
- Keep eyes on that person.
- Ask the person if he/she needs help.
- Signs and Symptoms
 - Person is not able to breath or talk due to obstruction, choking sign given, distressed, and panic.
 - Hands wrapped around the neck is universal sign for choking.

Choking Cont.

- What to Do:
 - Perform Heimlich Maneuver if you are properly trained
 - Conscious Victim:



- Approach from behind and wrap arms around the victim's waist.
- Place one fist just above the victim's navel with the thumb side against the abdomen.
- Second hand over the fist.
- Press into the victim's abdomen with one upward thrust
- Repeat thrust if necessary.
- Try to pop the obstruction out with swift thrusts in and up.
- Continue until the obstruction is relieved or victim collapses.
- Have someone call for help.
 Note: Always stay calm.



Choking Cont.

- What to Do:
 - Unconscious Victim:
 - Ask someone to call 999 for help
 - Lower victim to floor on back or left side and perform Heimlich Maneuver
 - Open airway with tongue-jaw lift
 - Look inside mouth if you cannot see anything, do not do a finger sweep
 - Try to give two full rescue breaths
 - If these do not go in, reposition the head and give another breath
 - Perform abdominal thrusts
 - Continue until successful or help arrives

Heart Attack

- Heart Attack happens when one of the coronary arteries is blocked by an obstruction or a spasm.
 - Signs and symptoms of a heart attack include:
 - Pressure in chest, fullness, squeezing, or pain that lasts more than a few minutes or that goes away and comes back.
 - Pain spreading to the shoulders, neck, or arms.
 - Chest discomfort with lightheadedness, fainting, sweating, nausea, or shortness of breath.

Heart Attack

• What to Do:

- Call EMS or get to the nearest hospital emergency department with 24-emergency cardiac care.
- Monitor victim's condition.
- Help the victim to the least painful position, usually sitting with legs up and bent at the knees.
 - Loosen clothing around the neck and midriff.
- Determine if the victim is known to have coronary heart disease and is using nitroglycerin.
- If the victim is unresponsive, check ABCs and start CPR, if needed.

PERFORM CPR

1. SHAKE AND SHOUT

Grasp the patient by the shoulders and shake briskly. Shout "Wake up!" and the patient's name if you know it. Shake and shout for a few seconds, but don't spend too much time. Move on to the next steps after five seconds of trying to wake the patient.

2. CALL 911

Anytime a patient won't wake up, call 911 immediately. Get help on the way as fast as you can.

3. CHECK FOR BREATHING

Tilt the patient's head back and look for breathing. If the patient doesn't take a breath in less than 10 seconds, start CPR.

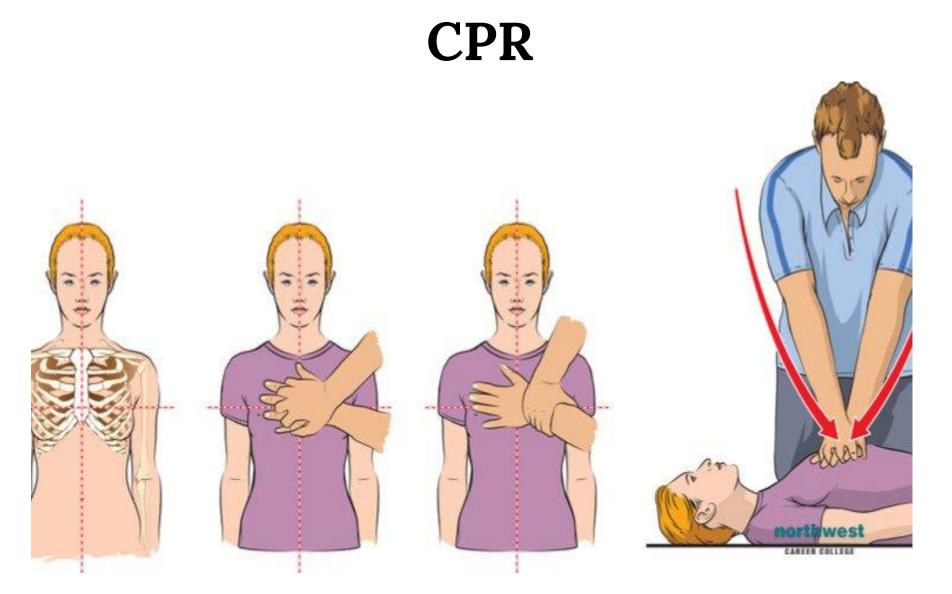
4. PLACE YOUR HANDS AT THE CENTER OF THEIR CHEST. PUSH HARD AND FAST - ABOUT TWICE PER SECOND

Imagine a line between the nipples and put your hands on the center of the chest right below that line. Push hard and fast—about twice per second.

5. IF YOU HAVE HAD TRAINING -REPEAT CYCLES OF 30 CHEST PUSHES AND 2 RESCUE BREATHS

If you have had CPR training and feel comfortable performing the steps, push on the chest 30 times then give 2 rescue breaths. Repeat cycles of 30 chest compressions and 2 breaths until help arrives or the patient wakes up.





Fractures

• There are two categories of fractures:

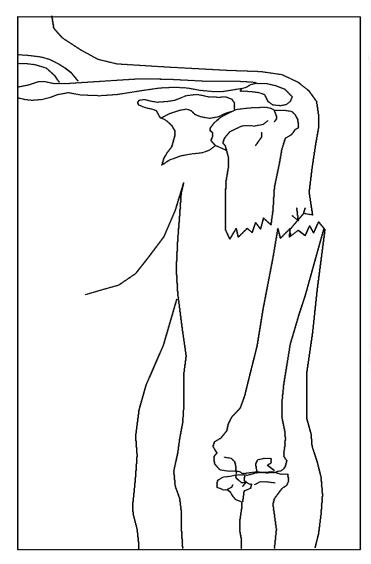
- Closed (Simple) fracture

• The skin is intact and no wound exists anywhere near the fracture site.

- Open (Compound) fracture

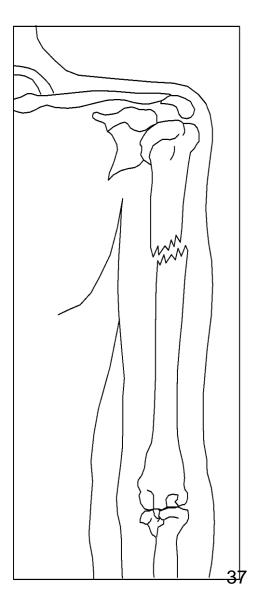
- The skin over the fracture has been damaged or broken.
- The wound may result from bone protruding through the skin.
- The bone may not always be visible in the wound.

Open Fractures





Closed Fractures



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Fractures Cont.

- What to Look for:
 - General signs and Symptoms:
 - Tenderness to touch.
 - Swelling.
 - Deformities may occur when bones are broken, causing an abnormal shape.
 - Open wounds break the skin.
 - A grating sensation caused by broken bones rubbing together
 - can be felt and sometimes even heard.
 - Do not move the injured limb in an attempt to detect it.
 - Loss of use.

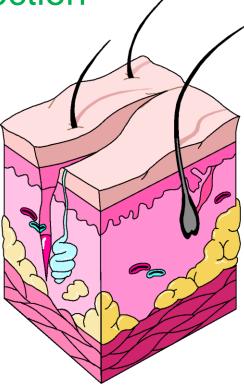
Fractures Cont.

- Additional signs and symptoms include:
 - The history of the injury can lead to suspect a fracture whenever a serious accident has happened.
 - The victim may have heard or felt the bone snap.

Basic First Aid for Wounds

Open Wounds

- A break in the skin's surface that results in external bleeding and may allow bacteria to enter the body that can cause infection
 - Abrasion
 - The top layer of skin is removed with little or no blood loss
 - Scrape
 - Laceration
 - A cut skin with jagged, irregular edges and caused by a forceful tearing away of skin tissue
 - Incisions
 - Smooth edges and resemble a surgical or paper cut



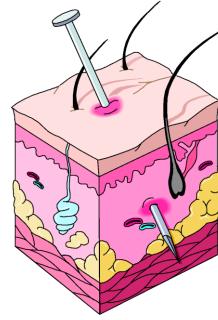
- Open Wounds Cont.
 - Punctures
 - Deep, narrow wounds such as a stab wound from a nail or a knife in the skin and underlying organs

– Avulsion

 Flap of skin is torn loose and is either hanging from the body or completely removed

– Amputation

• Cutting or tearing off of a body part such as a finger, toe, hand, foot, arm, or leg



• What to Do:

- Wear gloves (if possible) and expose wound
- Control bleeding
- Clean wounds
 - To prevent infection
 - Wash shallow wound gently with soap and water
 - Wash from the center out / Irrigate with water
- Severe wound?
 - Clean only after bleeding has stopped

- Wounds Care
 - Remove small objects that do not flush out by irrigation with sterile tweezers.
 - If bleeding restarts, apply direct pressure.
 - Use roller bandages (or tape dressing to the body)
 - Keep dressings dry and clean
 - Change the dressing daily, or more often if it gets wet or dirty.

- Signs of Wound Infection:
 - Swelling, and redness around the wound
 - A sensation of warmth
 - Throbbing pain
 - Fever / chills
 - Swollen lymph nodes
 - Red streaks
 - Tetanus (lock jaw), should receive injection in first 72 hours.

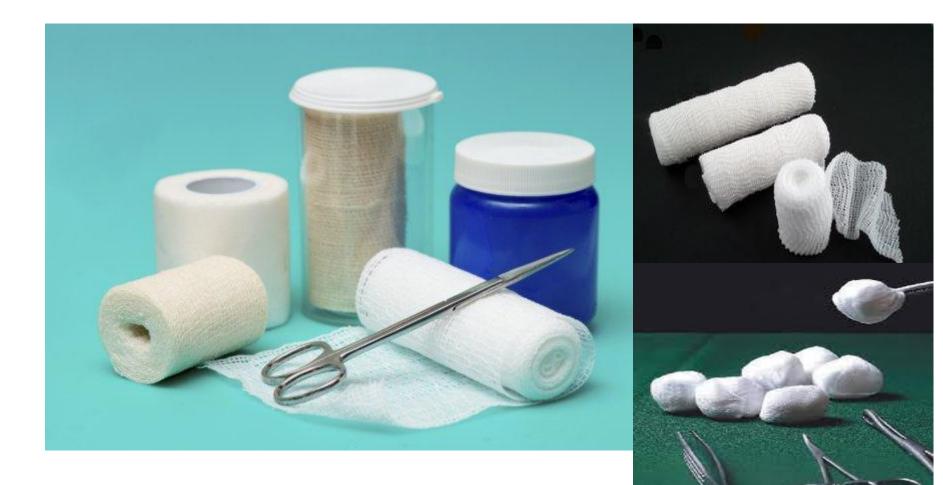
Dressings and Bandages

- The purpose of a dressing is to:
 - Control bleeding
 - Prevent infection and contamination
 - Absorb blood and fluid drainage
 - Protect the wound from further injury
- What to Do:
 - Always wear gloves (if possible)
 - Use a dressing large enough to extend beyond the wound's edges.
 - Cover the dressing with bandages.

Dressings and Bandages Cont.

- Bandage can be used to:
 - Hold a dressing in place over an open wound
 - Apply direct pressure over a dressing to control bleeding
 - Prevent or reduce swelling
 - Provide support and stability for an extremity or joint
 - Bandage should be clean but need not be sterile.

Dressing Materials



Amputation

• What to Do:

- Control the bleeding
- Treat the victim for shock
- Recover the amputated part and whenever possible take it with the victim
- To care for the amputated body part:
 - The amputated part does not need to be cleaned
 - Wrap the amputated part with a dry sterile gauze or other clean cloth
 - Put the wrapped amputated part in a plastic bag or other waterproof container
 - Keep the amputated part cool, but do not freeze
 - Place the bag or container with the wrapped part on a bed of ice
 - Seek medical attention immediately

Checking for Spinal Injuries

Spinal Injuries

- Head injuries may indicate that there are possible spinal injuries
 - It may have been moved suddenly in one or more directions, damaging the spine.
- What to Look For
 - General signs & symptoms
 - Painful movement of the arms or legs
 - Numbness, tingling, weakness, or burning sensation in the arms or legs
 - Loss of bowel or bladder control
 - Paralysis of the arms or legs
 - Deformity (odd-looking angle of the victim's head & neck

Checking for Spinal Injuries Cont.

• What to Do:

- Stabilize the victim against any movement.
- Check ABCs. (Airway Breathing Circulation)
- Unresponsive Victim:
 - Look for cuts, bruise, and deformities.
 - Test response by pinching the victim's hand, and bare foot.
 - If no reaction, assume the victim may have spinal damage.

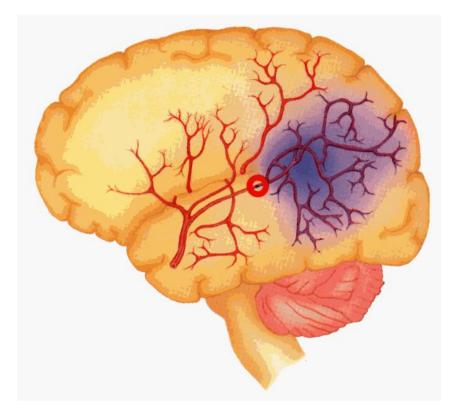
Checking for Spinal Injuries Cont.

- Responsive Victim
 - Upper Extremity Checks:
 - Victim wiggles fingers.
 - Victim feels rescuer squeeze fingers.
 - Victim squeeze rescuer's hand.
 - Lower Extremity Checks:
 - Victim wiggles toes.
 - Victim feels rescuer squeezes toes.
 - Victim pushes foot against rescuer's hand.

Stroke (Brain Attack)

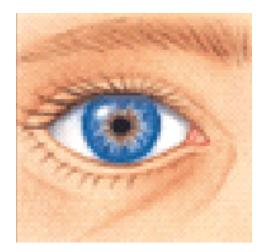
• What is Stroke?

Tissue damage to area of the brain due to disruption in blood supply, depriving that area of the brain of oxygen.

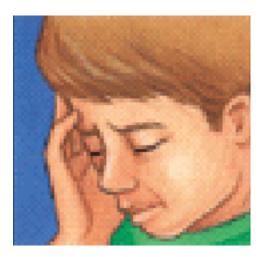


Stroke (Brain Attack) Cont.

- Signs and Symptoms of Stroke:
 - Weakness or numbness of the face, arm, or leg (usually on one side of the body)
 - Blurred or decreased vision, especially in one eye.



- Problems speaking or understanding
- Unexplained, severe headache
- Dizziness, unsteadiness, or sudden fall



Bites and Stings

- Insect stings and bites
 - What to Look For:
 - Check the sting site to see if a stinger and venom sac are embedded in the skin.
 - Bees are the only stinging insects that leave their stingers and venom sacs behind.
 - Scrape the stinger and venom sac away with a hard object such as a long fingernail, credit card, scissor edge, or knife blade.
 - Reactions generally localized pain, itching, and swelling.
 - Allergic reaction (anaphylaxis) occurs will be a life threatening.

Bites and Stings Cont.

- Insect stings and bites Cont.
 - What to Do:
 - Ask the victim if he/she has had a reaction before.
 - Wash the sting site with soap and water to
 prevent infection.
 - Apply an ice pack over the sting site to slow absorption of the venom and relieve pain.
 - Because bee venom is acidic, a paste made of baking soda and water can help.
 - Seek medical attention if necessary.

Bites and Stings Cont.

Tick bites

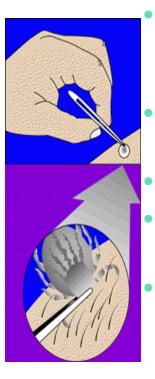
- Tick can remain embedded for days without the victim's realizing it.
- Most tick bites are harmless, although ticks can carry serious diseases.
- Symptoms usually begin 3 to 12 days after a tick bites.



Bites and Stings Cont.

Tick Bites Cont.

– What to Do:



- The best way to remove a tick is with fine-pointed tweezers. Grab as closely to the skin as possible and pull straight back, using steady but gentle force.
 Wash the bite site with soap and water.
 - Apply rubbing alcohol to further disinfect the area.
 - Apply an ice pack to reduce pain.
 - Calamine lotion may provide relief from itching.
 - Keep the area clean.

Continue to watch the bite site for about one month for a rash.

- If rash appears, see a physician.
- Also watch for other signs such as fever, muscle aches, sensitivity to bright light, and paralysis that begins with leg weakness.



First Aid for Spider Bites

Signs and Symptoms: **General spider:**

- Sharp pain in bite area
- Severe increase of sweating
- Nausea, vomiting and abdominal pain

Redback spider:

- Intense local pain which increases and spreads
- Small hairs stand on end
- Patchy sweating
- Headache
- Muscle weakness or spasms

Funnel-web spider:



☀

- Copious secretion of saliva
- Muscular twitching and breathing difficulty
- Small hairs stand on end
- Numbness around mouth
- Copious tears
- Disorientation
- Fast pulse
- Markedly increased blood pressure
- Confusion leading to unconsciousness

First Aid:

- Follow DRSABCD Call 999
 - for an ambulance.
 - If on a limb, apply a broad pressure bandage over the bite area
 - Apply a firm pressure immobilisation bandage starting just above fingers or toes and pass the bandage as far up the limb as possible
 - · Ensure the casualty remains still

First Aid:

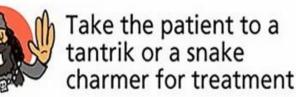
- Follow DRSABCD
- Lie casualty on back
- Reassure and calm the casualty
- Apply the cold pack and compress to relieve discomfort
- Seek medical assistance if severe symptoms develop













Immobilize the affected limb



Suck the wound



Cut the wound open



Apply basic first aid (wash the wound with soap & water)

Basic First Aid

Summary

The following information from this presentation have been covered:

- Chain of Survival
- What is First Aid?
- Scene Survey
- Initial Assessment
- Victim Assessment
 Sequence
- First aid kit
- Bleeding Control
- Shock
- Burns

- Choking
- Fractures
- Heart Attack
- Respiratory problem
- Basic First Aid for Wounds
- Dressing and Bandages
- Amputation
- Checking for Spinal Injuries
- Stroke (Brian Attack)
- Bites and Stings

Basic First Aid

- Summary cont.
 - Assess the situation
 - Ask for permission to help if possible unless the person is unconscious, then use "implied consent"
 - Call for help when necessary
 - Stabilize the situation before help arrives
 - Try to remain calm and do not panic

Remember Your Action Plan



D

R

S

Α

В

С

D

Check for danger - ensure scene is safe

Response

Check for response - ask name, squeeze shoulders

Send

Send for help -

Call 999

for an ambulance

Airway

Open mouth - look for foreign material

Breathing

Check for breathing - look, listen, feel

CPR

Start CPR - 30 compressions : 2 breaths

Defibrillation

Apply Defib (AED) ASAP & follow voice prompts





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