BASIC FIRST AID AND EMERGENCY CARE

Emergencies:
- Emergencies can happen at any time.

First Aid:
- In many cases, emergency care may require some form of first aid.
- Agencies such as the American Red Cross and the American Heart Association train people to perform these life-saving procedures.

Effective First Aid Providers:

**Obtain proper first aid training**
- This includes:
  - People in jobs that involve child care
  - Park guides, camp

**Be alert for emergency situations**
- Unusual odors
- Unusual behaviors

**Assess the situation before taking action**
- Treatment depends on multiple factors

**Remain calm in emergency situations and observe safety precautions**
- If possible, wash their hands and put on gloves
- Flush solutions that come into contact with eyes or skin

**Perform a safety check of the scene before taking action**
- Call for help immediately.

**Prioritize tasks and triage**
- Triage is a way to prioritize treatment. It determines which patient or which injury is treated first.

Life-threatening injuries should

**Principles of Care:**
- Keep the patient calm.
- Regulate the patient’s temperature by adding blankets or removing layers of clothing.
- Do not attempt to diagnose the patient or discuss the patient’s condition.
- Avoid further injury if possible.
Emergency Medical Services

- In many areas of the country, immediate help is available by dialing 911.
- If you cannot call immediately, ask someone else to call for help.

Emergency Care Legal Issues

- Emergency care professionals, other health care workers, and anyone else who has first aid training should be aware of some basic legal issues related to emergency care.

The Good Samaritan Acts:

- To be protected by these Acts:
  - Use as much care as possible according to the circumstances.

Scope of Practice

- Emergency care providers should only perform tasks for which they have been trained.

Keeping Records:

- Event report after each emergency
- This report includes:
  - A description of actions taken
  - The name and signature of the person preparing the report
Injury Care Techniques:

Dressings:
- Dressings are used to:
  - absorb secretions
  - treat pain
- Gauze pads are the most common materials used for dressings. However, in an emergency situation, any clean cloth can be used.

Bandages:
- Tight enough to control bleeding and to hold dressings, but do not interrupt blood circulation
- Three popular types of bandages are:
  - Triangular Bandages:
    - The triangular bandage is a triangular shape of cloth. It is often used for:
      - 
      - 
    - Triangular bandages can also be folded into cravats, which is a long strip of bandage folded to the proper width according to the injury.
  - Elastic and Roller Gauze Bandages:
    - Elasticity makes it easy to wrap an injury too tightly.
  - Splints:
    - Do not apply a splint if professional medical help is on the way.

Slings:
- Can be created using a triangular bandage.

Crutches:
- Used when unable to put weight on an injured or impaired leg, knee, ankle or foot.

Types of Crutches:
- Forearm crutches
- Platform crutches

Adjusting Crutches:
- Crutches must fit patients correctly.

Crutch Gaits:
- There are several types of crutch gaits.
  - Negotiating Stairs
  - Partial weight bearing
Wounds and Burns:

**Wounds:**
- Watch for excessive bleeding and infection

**Signs of Infection:**
- Pain
- Pus
- Red streaks coming from the wound

**Closed Wounds:**
- Caused when the body hits against a blunt object, such as in a bump or fall

**Open Wounds:**
- Incisions -
- Lacerations -
- Abrasions -
- Punctures -
- Avulsions -
- Amputations -

**Minor Open Wounds:**
- Not life-threatening and can be treated at home

**Major Open Wounds:**
- When caring for major wounds, the health care worker should also check the patient’s vital signs, and watch for signs of shock.

**Burns:**
- Burns are traumatic in that they can cause extreme pain, permanent disfigurement, psychological problems, and even death

**Types of Burns:**
- Chemical
- Electrical
First-Degree Burns:
- First-degree burns:
  - Most mild burn
  - Damages only the epidermis
- Symptoms:
  - Mild Swelling
  - Pain
- Causes:
  - Brief contact with hot objects, steam, or weak acids

Second-Degree Burns:
- Second-degree burns:
  - Affects the epidermis and the dermis
- Symptoms:
  - Skin appears wet and mottled
  - Swelling
- Causes:
  - Artificial radiation

Third-Degree Burns:
- Third-degree burns:
  - Affects the epidermis, dermis, the tissue beneath the skin, and possibly the muscles and bones
- Symptoms:
  - White or charred skin
- Causes:
  - Exposure to electricity
  - Immersion in a boiling substance

Extent and Severity of Burns:
- The Rule of Nines
  - Children should get medical care if burns cover more than 10% of the body.
Another method for categorizing burns is a combination of the burn’s depth and its size
Shock and Bone/Joint Injuries

Shock

- Often results from physical or emotional trauma

Causes of Shock

- Types of trauma that can cause shock include:
  - Infection
  - Stroke
  - Dehydration
  - Psychological trauma

Symptoms of Shock

- Shock has many symptoms, including:
  - Cool skin
  - Low blood pressure
  - Anxiety or restlessness

- Shock symptoms vary from patient to patient.

Types of Shock

- Anaphylactic Shock
  - Metabolic Shock
  - Psychogenic Shock
  - Septic Shock

Treating Shock

- There are several aims for treating shock, including:
  - Eliminating or controlling the cause of shock
  - Providing oxygen

Regulating body

Bone and Joint Injuries:

- Include:
  - Dislocations
  - Strains
Fractures
- Fractures are breaks or cracks in a bone.
- Symptoms:
  - Limited or loss of motion
  - Protrusion of bone through the skin
  - Grating sensation

Dislocations
- Symptoms:
  - Limited or abnormal movement
  - Pain
  - Shortening or lengthening of the limb

Sprains
- Symptoms:
  - Discoloration
  - Possibly limited motion

Strains
- Symptoms:
  - Sudden pain
  - Bruising
Sudden Illnesses

Heart Attacks

- Causes:
  - Blockages in the arteries
  - Heart spasms

Heart Attack Symptoms

- Common heart attack symptoms include:
  - Difficulty breathing
  - Weakness

- “Silent” heart attack symptoms may include:
  - Dizziness
  - Vomiting
  - A feeling of fullness, choking, or indigestion

Strokes

- Causes:
  - High blood pressure, high cholesterol, heart disease, aging, heredity, obesity, smoking, diabetes, and drugs that cause blood clots

Stroke Symptoms

- Symptoms vary depending on the part of the brain the stroke affects and how long the stroke lasts.

- Common symptoms:
  - Trouble seeing out of one or both eyes
  - Confusion or difficulty speaking
Fainting

- **Causes:**
  - Heat stroke
  - Illness or disease
- **Symptoms that might occur prior to fainting:**
  - Nausea
  - Pale, clammy skin
  - Blurred vision or seeing spots
  - Sensation that the room is spinning or moving

Diabetic Reactions

- Insulin is used by the body to get glucose from the blood to body cells.
- **Causes of diabetic reaction:**
  - A diabetic who takes too little or too much medication

Insulin Shock

- When a diabetic has too much insulin and too little glucose in the blood, insulin shock, or hypoglycemia, may occur.
- Insulin shock often happens suddenly and can result in convulsions or a coma.
- **Causes of shock:**
  - Getting too much exercise
  - Taking too much insulin
- **Symptoms of insulin shock:**
  - Perspiration
  - Hunger
  - Double vision
  - Headache
Diabetic Coma

» Causes of diabetic coma:
  ▫ Failing to take the right amount of insulin
  ▫ Fever

» Symptoms of diabetic coma:
  ▫ Dizziness
  ▫ Weak, rapid pulse
  ▫ Sweet-smelling breath
  ▫ Rapid, deep breathing
  ▫ Dry, flushed skin

Seizures

» Seizures
  ▫ The sudden stiffness is quickly followed by involuntary movement

» During a seizure, patients may:
  ▫ Lose control of bladder and bowels
  ▫ Bite their tongues

» Causes of seizures:
  ▫ Head injuries
  ▫ Brain diseases and disorders, most notably epilepsy

» Patients can hurt themselves while they are convulsing

Seizure Warnings

» Warning signs of a seizure:
  ▫ Numbness
  ▫ Tingling sensation
  ▫ Feeling of deja-vu
  ▫ Strange taste in the mouth
  ▫ Staring or “zoning out”
Extreme Temperatures

Exposure to Heat:

- Causes include:
  - Being in extreme heat for too long
  - Illnesses, such as heart conditions, diabetes, and high blood pressure

Heat Cramps:

- A heat cramp is essentially a muscle cramp.

Symptoms:
  - Muscle spasm

Heat Exhaustion:

- Symptoms:
  - Weakness and tiredness
  - Nausea and dizziness
  - Vomiting or fainting

Heat Stroke:

- Symptoms:
  - Rapid, shallow breathing
  - Seizure
  - Unconsciousness

Exposure to Cold:

- Causes of exposure to cold include:
  - Immersion in very cold water
  - An affect of illnesses
Hypothermia:

- Hypothermia can be caused by submersion in extremely cold water. It can also result from spending too much time in cool, damp environments.

- Symptoms:
  - Numbness
  - Poor coordination
  - Unconsciousness

Frostbite:

- Symptoms:
  - Redness and tingling
  - Confusion
  - Unconsciousness