#### 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:

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A description of actions taken

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The name and signature of the person preparing the report

#### Injury Care Techniques:



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:
  - 0
  - Most mild burn
  - Damages only the epidermis
- Symptoms:
  - 0
  - Mild Swelling
  - Pain
- Causes:

  - Brief contact with hot objects, steam, or weak acids

#### Second-Degree Burns:

- Second-degree burns:
  - 0
  - Affects the epidermis and the dermis
- Symptoms:
  - 0
  - Skin appears wet and mottled
  - Swelling
- Causes:

  - Artificial radiation

# Third-Degree Burns:

- Third-degree burns:
  - 0
  - Affects the epidermis, dermis, the tissue beneath the skin, and possibly the muscles and bones
- Symptoms:
  - White or charred skin
- Causes:

  - 0
  - 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.

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Symptoms:

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Limited or loss of motion

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Protrusion of bone through the skin

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Grating sensation

# **Dislocations**

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Symptoms:

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Limited or abnormal movement

- Pain
- Shortening or lengthening of the limb

# **Sprains**

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Symptoms:

Discoloration

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Possibly limited motion

# **Strains**

- Symptoms:
  - Sudden pain

Bruising

#### Sudden Illnesses

# **Heart Attacks**

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- Causes:
  - Blockages in the arteries

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Heart spasms

# **Heart Attack Symptoms**

▶ Common heart attack symptoms include:

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Difficulty breathing

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- Weakness
- "Silent" heart attack symptoms may include:

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Dizziness

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- Vomiting
- A feeling of fullness, choking, or indigestion

#### **Strokes**

▶ Causes:

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 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:

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Trouble seeing out of one or both eyes

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Confusion or difficulty speaking

# **Fainting**

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Causes:

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Heat stroke

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- Illness or disease
- Symptoms that might occur prior to fainting:

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Nausea

Pale, clammy skin

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Blurred vision or seeing spots

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Sensation that the room is spinning or moving

#### **Diabetic Reactions**

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- Insulin is used by the body to get glucose from the blood to body cells.
- ▶ Causes of diabetic reaction:

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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

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Hunger

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- 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

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Illnesses, such as heart conditions, diabetes, and high blood pressure

# **Heat Cramps:**

- A heat cramp is essentially a muscle cramp.
- Symptoms:

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Muscle spasm

#### **Heat Exhaustion:**

Symptoms:

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Weakness and tiredness

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- Nausea and dizziness
- Vomiting or fainting

# **Heat Stroke:**

■ Symptoms:

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Rapid, shallow breathing

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Seizure

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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

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- Poor coordination
- Unconsciousness

# Frostbite:

- Symptoms:
  - Redness and tingling

Confusion

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Unconsciousness