

## **Knowledge and Attitude Objectives**

- Identify the anatomic structures of the respiratory system and state the function of each structure.
- State the differences in the respiratory systems of infants, children, and adults.
- Describe the process used to check a patient's responsiveness.
- Describe the steps in the head tilt–chin lift technique.

## **Knowledge and Attitude Objectives**

- Describe the steps in the jaw-thrust technique.
- Describe how to check for fluids, solids, and dentures in a patient's mouth.
- State the steps needed to clear a patient's airway using finger sweeps and suction.
- Describe the steps required to maintain a patient's airway using the recovery position, oral airways, and nasal airways.

## **Knowledge and Attitude Objectives**

- Describe the signs of adequate breathing, the signs of inadequate breathing, the causes of respiratory arrest, and the major signs of respiratory arrest.
- Describe how to check a patient for the presence of breathing.
- Describe how to perform rescue breathing using a mouth-to-mask device, a mouth-to-barrier device, and mouth-to-mouth techniques.

## **Knowledge and Attitude Objectives**

- Describe, in order, the steps for recognizing respiratory arrest and performing rescue breathing in infants, children, and adults.
- Describe the differences between the signs and symptoms of a mild airway obstruction and those of a severe or complete airway obstruction.
- List the steps in managing a foreign-body airway obstruction in infants, children, and adults.

## **Knowledge and Attitude Objectives**

- List the special considerations needed to perform rescue breathing in patients with stomas.
- Describe the special considerations of airway care and rescue breathing in children and infants.
- Describe the hazards that dental appliances present during the performance of airway skills.
- Describe the steps in providing airway care to a patient in a vehicle.

## **Skill Objectives**

- Demonstrate the head tilt–chin lift and jaw-thrust techniques for opening blocked airways.
- Check for fluids, solids, and dentures in a patient's airway.
- Correct a blocked airway using finger sweeps and suction.
- Place a patient in the recovery position.
- Insert oral and nasal airways.

## **Skill Objectives**

- Check for the presence of breathing.
- Perform rescue breathing using a mouth-to-mask device, a mouth-to-barrier device, and mouth-to-mouth techniques.
- Demonstrate the steps in recognizing respiratory arrest and performing rescue breathing on an adult patient, a child, and an infant.

## **Skill Objectives**

- Perform the steps needed to remove a foreign body airway obstruction in an infant, a child, and an adult.
- Demonstrate rescue breathing on a patient with a stoma.
- Perform airway management on a patient in a vehicle.

## **Airway Management**

- Two most important lifesaving skills:
  - Airway care
  - Rescue breathing
- To survive, patients need:
  - An open airway
  - Adequate breathing

## **Anatomy and Function of the Respiratory System**

- All organisms need oxygen to stay alive.
- The brain can only last 4 to 6 minutes without oxygen.
- Once brain cells are destroyed, they cannot be replaced.
- The respiratory system provides oxygen and removes carbon dioxide from cells.

## **Airway**

- Check for responsiveness.
- Correct blocked airway.
- Check for fluids, foreign bodies, or dentures.

## **Airway**

- Correct airway using finger sweeps or suction.
- Maintain airway.

## **Correcting the Blocked Airway**

- Head tilt–chin lift technique

## **Finger Sweeps**

## **Suctioning**

- Remove any large pieces with gloved hand.
- Suction only as deep as you can see.
- Do not suction longer than:
  - 15 seconds at a time for an adult
  - 10 seconds at a time for a child

- 5 seconds at a time for an infant

## **Suctioning Maintain the Airway**

- Maintain patient's airway using one of the following:
  - Recovery position
  - Oral airways
  - Nasal airways

## **Recovery Position Oral Airways**

- Used to maintain patient's airway
- May only be used on patients without a gag reflex
- Functions as a pathway to suction patient
- It is important to select the proper size airway.

## **Inserting an Oral Airway Nasal Airways**

- Can be used on conscious or unconscious patients
- Should not be used on patients with head injuries
- Select proper size airway prior to insertion.
- Lubricate nasal airway prior to use.

## **Inserting a Nasal Airway**

- Coat airway with water-soluble lubricant.
- Select larger nostril.
- Insert airway until flange rests against nose.

## **Adequate vs. Inadequate Breathing**

- Adequate:
  - Rise and fall of chest
  - Sounds of air passing into/out of patient's nose/mouth
  - Air coming out of nose/mouth

## **Correct Breathing**

Rescue breathing can be performed via:

- Mouth-to-mask rescue breathing
- Mouth-to-barrier rescue breathing
- Mouth-to-mouth rescue breathing

## **Mouth-to-Mask Rescue Breathing**

- First responder life support kit should contain an artificial respiration device.
- Mouth-to-mask ventilation device
  - Mask that fits over the patient's face
  - One-way valve
  - Mouthpiece

## **Mouth-to-Mask Rescue Breathing**

- Open airway using head tilt–chin lift technique.
- Or, open airway using jaw-thrust technique.
- Seal mask against patient's face.
- Breathe through mouthpiece.

## **Mouth-to-Barrier Rescue Breathing**

- Small enough to carry in your pocket
- Place barrier device over patient's mouth and make a tight seal with your mouth.

## **Rescue Breathing for Children**

- A child is a person between 1 year of age and the onset of puberty (12 to 14 years).
- Steps are the same, but differences exist:
  - Do not use as much force to open airways and tilt heads.
  - Rate is slightly faster (one breath every 3 to 5 seconds).

## **Rescue Breathing for Infants**

- An infant is under 1 year of age.
- Remember that infants are tiny and fragile!
- Check for responsiveness by gently shaking the infant's shoulder.

## **Foreign Body Airway Obstruction**

- Causes of airway obstruction
  - Tongue
  - Foreign body
  - Vomitus

## **Foreign Body Airway Obstruction**

- Types of airway obstruction
  - Mild obstruction
  - Severe obstruction
- With severe obstructions, patient cannot breathe or speak.

## **Airway Obstruction: Unconscious Adult**

## **Airway Obstruction: Children**

- Steps are same as for an adult.
- Tilt the head just past neutral position.
- If you are alone and child becomes unresponsive:
  - Perform five cycles of CPR (2 minutes).
  - Activate EMS system.

## **Airway Obstruction: Infants**

- For conscious infants, perform five back slaps and five chest thrusts.
- Do not tilt infant's head back too far.

## **Special Considerations**

- Patients with stomas
- Gastric distention
- Dental appliances
- Airway management in a vehicle

### **Gastric Distention**

- Occurs when air is forced into the stomach
- May cause patient to vomit
- Breathe just hard enough to make the chest rise.

### **Airway Management in a Vehicle**

- If patient is lying down, apply jaw thrust.
- If patient is sitting:
  - Approach from the side.
  - Grasp patient's head with both hands.
  - Maintain slight upward pressure to support the head and spine.

### **Airway Management in a Vehicle**