Difficulty in Breathing
Basic Emergency Care Course
Objectives

• Recognize the signs of difficulty in breathing (DIB)
• List the high-risk causes of DIB
• Perform critical skills for high-risk causes of difficulty in breathing
Essential Skills

• Basic airway manoeuvres
• Basic airway device insertion
• Management of choking
• Oxygen administration
• Bag-valve-mask ventilation
• Needle decompression for tension pneumothorax
• Three-sided dressing for sucking chest wound
The ABCDE Approach

**REMEMBER ............**

Always start with the ABCDE Approach AND treat life-threatening conditions

Then take a SAMPLE history

Then do a Secondary Exam
Key Elements in the ABCDE Approach

Airway:
• Swelling (allergic reaction)
• Choking (foreign body obstruction)
• Listen for stridor (serious airway narrowing)

Breathing:
• Signs/ symptoms of tension pneumothorax
  • Absent breath sounds on one side with hypotension
  • Distended neck veins
  • Tracheal shifting
• Listen: wheezing may indicate asthma or allergic reaction
Key Elements in the ABCDE Approach

**Circulation:**
- Check capillary refill, heart rate, rate of breathing and blood pressure for signs of poor perfusion
- Shock, heart attack, heart failure or severe infection can present with poor perfusion and difficulty in breathing
- Check for leg swelling or lung *crackles* which may be signs of heart failure

**Disability**
- **Check** level of consciousness with AVPU
  - Patients with decreased level of consciousness may not be able to protect their airways
- Drugs/infection/injury can affect the part of the brain that controls breathing
- **Check** for paralyzing conditions that can affect breathing muscles

**Exposure**
- **Look** at chest wall movement
- **Check** for penetrating trauma
The SAMPLE History
S: Signs and Symptoms

• **ASK:**
  • When did the symptoms start?
  • Was the onset sudden?
  • Do they come and go?
  • How long do they last?
  • Have they changed over time?
  • Any similar episodes?
  • ect...
SUDDEN onset shortness of breath THINK:

- Obstruction of the airway
  - Foreign body
  - Swelling of the airway
  - Trauma to the airway, lung, heart or chest wall
  - Toxic inhalation
- Sudden heart problems
  - Heart attack
  - Abnormal rhythm
  - Valve problems
- Rapid deep breathing
  - Poisoning
  - High acid levels (diabetic ketoacidosis)
  - Anxiety
SLOWER onset shortness of breath THINK:

- Infections
- Fluid in the lungs
  - TB and heart failure
- Fluid around the heart
  - TB or kidney disease
- Lung cancer
- Diseases affecting muscles of chest wall
- Asthma or COPD
S: Signs and Symptoms

• **ASK:**
  - Was there anything that triggered the difficulty in breathing?
  - What makes it better or worse?

• **THINK**
  - Allergies -> airway blockage from swelling
  - Inhalation (fire or chemicals) -> airway swelling
  - Chemicals and pesticides -> fluid in lungs or muscle weakness
  - If lying flat worsens breathing this suggests fluid in the lungs
S: Signs and Symptoms

• **ASK:**
  - Is there any tongue or lip swelling or voice changes?

• **THINK**
  - Swelling to mouth, lips, tongue, upper throat and voice changes suggest severe allergic reaction and inflammation in the airway

**WATCH CLOSELY**
S: Signs and Symptoms

• **LISTEN**
  - Are there any abnormal breath sounds?

• **THINK**
  - *Stridor* (high pitched “squeaking” sound during inhalation)
    - UPPER AIRWAY swelling or blockage
  - *Wheezing* (high pitched sound during exhalation)
    - LOWER AIRWAY narrowing or spasms in the lungs
    - Asthma, COPD, heart failure, allergic reactions
  - *Gurgling*: (low pitched bubbling)
    - Mucous or fluid in the airway
S: Signs and Symptoms

• ASK
  • Is there any pain associated with the difficulty breathing?

• THINK
  • If the patient has chest pain with difficulty in breathing:
    • Heart attack
    • Pneumothorax
    • Pneumonia
    • Trauma to lungs, ribs or muscles
  • Pleuritic pain (worse with deep breaths)
    • Infection
    • Blood clot in lung (pulmonary embolism)
S: Signs and Symptoms

• **CHECK**
  - Is there a fever?
  - Is there a cough?

• **THINK**
  - Fever suggests an infection
  - Cough with fluid sounds could be pneumonia or oedema
  - Cough with a wheeze suggests asthma or COPD
S: Signs and Symptoms

- **CHECK**
  - Foot and leg swelling
  - For recent pregnancy

- **THINK**
  - Oedema to both feet and legs suggests heart failure
  - Swelling and pain to one leg suggests a blood clot that could travel to lung (pulmonary embolism)
  - Pregnancy is a risk factor for both pulmonary embolism and heart failure
A: Allergies

• ASK
  • Allergies to medications or other substances?
  • Recent insect bites or stings?

• THINK
  • Severe allergic reactions can cause airway swelling and difficulty breathing
  • People can have allergic reactions to almost anything
    • Food
    • Plants
    • Medications
    • Insect bites/stings
M: Medications

• **ASK**
  • Currently taking any medications?

• **THINK**
  • New medications or change in dosages can cause allergies and difficulty breathing
  • Accidental overdose of some medications can slow or stop breathing
P: Past Medical History

• **ASK**
  • History of asthma or chronic obstructive pulmonary disorder (COPD)?
  • History of heart disease or kidney disease?
  • History of tuberculosis or cancer?

• **THINK**
  • Asthma and COPD cause episodes of DIB
  • Heart or kidney failure can cause a fluid build-up in the lungs
  • Heart attacks may present with difficulty in breathing
  • Pericardial effusions and pleural effusions can be caused by cancer, tuberculosis or kidney problems
P: Past Medical History

• ASK
  • History of diabetes?
  • History of smoking?
  • History of HIV?

• THINK
  • Diabetics can have fast breathing from diabetic ketoacidosis
  • Smoking increases the risk of asthma, COPD, lung cancer, heart attack
  • HIV increases the risk of infection
L: Last Oral Intake

- **ASK**
  - When did the patient last eat or drink?

- **THINK**
  - Full stomach puts the patient at risk for vomiting and aspiration
E: Events Surrounding Illness

• **ASK**
  - What was the person doing when the difficulty in breathing started?

• **THINK**
  - DIB after eating, think choking
  - DIB with exercise and chest pain, think heart attack
E: Events Surrounding Illness

- **ASK**
  - Was the patient found in or near water?

- **THINK**
  - Consider drowning (inhalation of water) if a person is found in or near water
  - Even a small amount of inhaled water can cause serious lung damage
    - Worsens over time. WATCH CLOSELY
E: Events Surrounding Illness

• **ASK**
  • Has there been any exposure to pesticides or inhaled chemicals?

• **THINK**
  • Pesticides used in farming can be absorbed through the skin and cause fluid in the airways and lungs
  • Exposure to gases from a fire can cause chemical inhalation
E: Events Surrounding Illness

• **ASK**
  • Has there been any recent trauma?

• **THINK**
  • Rib fractures
  • Pneumothorax
  • Haemothraox
  • Heart or lung bruising
Workbook Question 1

Using the workbook section above, list 5 questions about PAST MEDICAL HISTORY you would ask when taking a SAMPLE history

1.
2.
3.
4.
5.
Secondary Exam Findings

• **Look, listen and feel**

• Difficulty in breathing may present with:
  • Changes in the respiratory rate
  • Changes in the respiratory effort
  • Low oxygen levels in the blood

*Remember you should have ALREADY completed the ABCDE Exam and treated life-threatening conditions BEFORE doing this extensive examination*

*If the secondary exam identifies an ABCDE condition, STOP AND RETURN IMMEDIATELY TO ABCDE to manage it.*
Secondary Exam Findings

- **Look** for signs of respiratory failure
  - Accessory muscle use and increased work of breathing
  - Difficulty speaking in full sentences
  - Inability to lie down or lean back
  - Diaphoresis and mottled skin
  - Confusion, irritability, agitation
  - Poor chest wall movement
  - Cyanosis
Secondary Exam Findings

• **Look at** pupil size and reactivity
  • Small pupils suggest possible medication overdose or exposure to chemicals (usually pesticides)
  • Unequal or abnormally shaped pupils suggest head injury which can cause abnormal breathing

Source: WHO Pocket Book for Hospital Care of Children. 2nd Ed. 2013. P168
Secondary Exam Findings

• **Look** at the face, nose and mouth
  • *Cyanosis* around the lips or nose suggests low oxygen levels in the blood
  • Pale lower eyelids may suggest anaemia
  • Swelling of the lips, tongue and back of mouth suggest allergic reaction
  • Soot around the mouth or nose, burned facial hair or facial burns suggests smoke inhalation
  • Bleeding, swelling or abnormal airway shape may be due to trauma
Secondary Exam Findings

• **Look** at the neck and chest
  
  • *Distended neck veins* suggests heart failure, tension pneumothorax or pericardial tamponade
  
  • Excessive muscle use of neck and chest suggests significant respiratory difficulty
  
  • Tracheal shift suggests tension pneumothorax or tumour
  
  • Swelling of the neck suggests infection or trauma
  
  • Examine the entire neck and chest carefully for signs of trauma
Secondary Exam Findings

• **Look** at the rate and pattern of breathing
  • Longer exhalation time due to narrowing of lower airways
    • Asthma
  • Fast breathing
    • Dehydration
    • Severe infection
    • Chemical imbalances in the blood
    • Poisoning
    • Anxiety
  • Slow and shallow breathing
    • Opioid overdose
  • Flail chest
    • Occurs with multiple rib fractures when a segment of rib cage separates from the rest of the chest wall
Secondary Exam Findings

• **Look** at both legs
  • Swelling to both legs (heart failure)
  • Swelling to one leg with pain (blood clot)

• **Look** at the skin
  • Bites (allergic reaction)
  • Rashes (allergic reaction or systemic infection)
    • Hives
  • *Pallor* (anaemia)
  • Burns that wrap around torso
    • Can restrict chest wall expansion
Secondary Exam Findings

• **Listen** to breath sounds
  • *Stridor*
    • Partial upper airway obstruction-
      • Foreign body
      • Swelling
      • Trauma
      • Infection
• **Decreased breath sounds**
  • Something preventing air from entering the lung
    • Pneumothorax
    • Haemothorax
    • Fluid
    • Foreign body
    • Infection inside the lungs or tumour
Secondary Exam Findings

- **Listen** to breath sounds
  - *Wheezing*
    - Lower airway obstruction
      - Asthma
      - Allergic reaction
      - Tumour
      - Foreign object
  - *Crackles*
    - Fluid build-up in the airways of the lungs

Try to listen to breath sounds often so you can know what is normal and what is not!
Secondary Exam Findings

• **Listen** to heart sounds
  • Abnormal heart rhythms can cause the heart to pump blood poorly
    • Poor perfusion
  • *Heart murmurs* with difficulty breathing
    • Heart valve disease or injury
  • Muffled or distant heart sounds with low blood pressure, fast heart rate and distended neck veins suggests pericardial tamponade
Secondary Exam Findings

- **Feel** the chest wall (ribs)
  - Deformities or abnormal movements suggests rib fractures
  - *Crepitus* suggests underlying fracture or pneumothorax
  - Unequal chest expansion
    - Pneumothorax, haemothorax, flail chest

- **Percuss** the chest wall
  - Hollow sounds (*hyperresonance*)
    - Pneumothorax
  - Dull sounds
    - Fluid or blood
Workbook Question 2

Using the workbook section above, List 3 signs you should LOOK for in a patient with difficulty in breathing:

1.

2.

3.
Workbook Question 2

List 4 things you should **LISTEN** for in a patient with difficulty in breathing:

1.
2.
3.

List 3 things you should **FEEL** the chest wall for in a patient with difficulty in breathing:

1.
2.
3.
Possible Causes of Difficulty in Breathing
Key AIRWAY causes of DIB

• Foreign body obstruction
  • Acute difficulty breathing
  • Visible secretions, vomit or foreign body
  • Abnormal sounds from the airway (*stridor*, snoring, gurgling)
  • Coughing
  • Drooling

• Severe allergic reaction
  • Swelling of lips, tongue and mouth
  • Stridor and/or wheezing
  • Rash or hives
  • May have tachycardia and hypotension
  • Exposure to known allergen
Key AIRWAY causes of DIB

- Airway swelling (inflammation or infection)
  - Stridor
  - Hoarse voice
  - Drooling or difficulty swallowing (indicates severe swelling)
  - Unable to lie down
  - May have fever (with infection)
Key **AIRWAY** causes of DIB

• Airway burns
  • History of exposure to chemical or fire
  • Facial burns (singed facial hair)
  • Stridor
  • Change in voice
Key **LUNG** causes of DIB

- Pneumonia
  - Fever and cough
  - Gradually increasing work of breathing
  - Worsening pain with breathing (pleuritic)
  - Abnormal lung exam (*LISTEN* for *crackles*)
Key LUNG causes of DIB

- Asthma/ COPD
  - Wheezing
  - Cough
  - Accessory muscle use
  - Tripod position
  - May have history of smoking or allergies
Key **LUNG** causes of DIB

- Pneumothorax
  - Decreased breath sounds on one side
  - Sudden onset
  - *Hyperresonance* with percussion on affected side
  - Pain worse with breathing
  - May have history of trauma or evidence of rib fracture
  - Hypotension, distended neck veins and decreased breath sounds on one side indicate **tension pneumothorax**

An untreated pneumothorax can develop into a tension pneumothorax!
Key **LUNG** causes of DIB

- Haemothorax
  - Decreased breath sounds on affected side
  - Dull sounds with percussion
  - May have history of trauma, cancer or tuberculosis
  - May have symptoms of shock if large haemothorax
Key **LUNG** causes of DIB

- Pleural effusion
  - Decreased breath sounds on one or both sides
  - Dull sounds with percussion
  - May have history of cancer, tuberculosis, heart disease or kidney disease
  - Acute or chronic difficulty breathing
Key LUNG causes of DIB

• Acute chest syndrome (sickle cell patients)
  • History of sickle cell disease
  • Chest pain
  • Fever
  • Hypoxia
Key **CARDIAC** causes of DIB

- Heart attack
  - Chest pressure, tightness or crushing feeling in the chest
  - Diaphoresis and mottled skin
  - Nausea or vomiting
  - Signs of heart failure
  - History of smoking, cardiac disease, hypertension, diabetes, high cholesterol, family history of heart problems
Key **CARDIAC** causes of DIB

- Heart failure
  - Difficulty in breathing with exertion
  - Difficulty in breathing when lying flat
  - Swelling to both legs
  - Distended neck veins
  - *Crackles* may be heard in the lungs
  - May have chest pain
Key **CARDIAC** causes of DIB

- Cardiac tamponade
  - Signs of poor perfusion (shock)
    - Tachycardia, tachypnea, hypotension, pale skin, cold extremities, capillary refill greater than 3 seconds
  - Distended neck veins
  - Muffled heart sounds
- May have dizziness, confusion or altered mental status
- May have history of tuberculosis, trauma, cancer, kidney failure
Key **SYSTEMIC** causes of DIB

- Anemia
  - Pale skin and inner lower eyelids
  - Tachycardia
  - Tachypnoea
  - History of haemorrhage, malnourishment, cancer, pregnancy, infections (tuberculosis or malaria), renal failure

- Opioid overdose
  - Clinical or recreational opioid use
  - Altered mental status
  - Change in pupil size
  - Slow, shallow breathing
Key **SYSTEMIC** causes of DIB

- Diabetic Ketoacidosis (DKA)
  - History of diabetes
  - Rapid or deep and slow breathing (Kussmaul breathing)
  - Frequent urination
  - Sweet smell to breath
  - High glucose in blood or urine
  - Dehydrated
### Workbook Question 3

Using the workbook section above, list the possible cause of Difficulty In Breathing next to the history & physical findings below:

<table>
<thead>
<tr>
<th>History and Physical Findings:</th>
<th>Likely Cause:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A 20 yr male presents with difficulty breathing, wheeze and:</strong></td>
<td></td>
</tr>
<tr>
<td>Swelling of lips, tongue and mouth</td>
<td></td>
</tr>
<tr>
<td>Rash or hives (patches of pale or red, itchy, warm, swollen skin)</td>
<td></td>
</tr>
<tr>
<td>Tachycardia and hypotension</td>
<td></td>
</tr>
<tr>
<td>History of allergies</td>
<td></td>
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<tr>
<td>Exposure to known allergen</td>
<td></td>
</tr>
<tr>
<td><strong>A 50 yr woman presents with difficulty breathing, signs of poor persusion (tachycardia, tachypnoea, hypotension, pale skin, cold extremities, capillary refill greater than 3 seconds) and:</strong></td>
<td></td>
</tr>
<tr>
<td>Distended neck veins</td>
<td></td>
</tr>
<tr>
<td>Muffled heart sounds</td>
<td></td>
</tr>
<tr>
<td>History of tuberculosis</td>
<td></td>
</tr>
</tbody>
</table>
Management of Difficulty in Breathing

REMEMBER treat ABCDE problems and life-threatening conditions first
Management

• If suspected **airway inflammation** or **burns**:
  • Keep patient calm
  • Give OXYGEN if it does not upset the patient
  • If patient is alert without other injuries, seated upright may make the patient more comfortable
  • Consider early advanced airway management
    • Delays in intubation-> worsening swelling-> increased difficulty breathing
      -> difficult intubation
  • Plan for rapid HANDOVER/TRANSFER
Management

• If suspected choking:
  • Use age-appropriate chest thrusts/abdominal thrusts/back blows
Management

• If suspected choking in infants:
  • In infants, alternate between 5 back blows and 5 chest thrusts
Management

• If suspected **allergic reaction**:  
  • Remove allergen  
  • For severe allergic reaction with difficulty breathing  
    • Give intramuscular ADRENALINE without delay  
    • Give OXYGEN  

• If suspected **asthma/COPD**  
  • Give SALBUTAMOL  
  • Give OXYGEN if indicated  

• If suspected **DIB from fever**  
  • Give ANTIBIOTICS as soon as possible  
  • If signs of poor perfusion, give IV FLUIDS
Management

• If suspected heart attack:
  • Give ASPIRIN
  • With symptoms of shock or difficulty breathing give OXYGEN
  • If patient has NITROGLYCERIN, assist them in taking it

• If suspected chronic, severe anaemia:
  • Give IV FLUIDS slowly
    • Listen frequently for crackles in the lungs (fluid overload)
    • Prepare for handover/transfer for possible BLOOD TRANSFUSION

• If suspected diabetic ketoacidosis (DKA):
  • Give IV FLUIDS
  • Prepare for urgent transfer
Management

• If suspected **opioid overdose**
  • Support breathing with a BAG-VALVE-MASK as needed
  • Give NALOXONE

• If suspected large **pleural effusion** or **haemothorax**:
  • Give OXYGEN
  • Arrange for urgent HANDOVER/TRANSFER
    • Patient requires CHEST TUBE or drain
Management

- If suspected trauma:
  - Give OXYGEN
  - If tension pneumothorax or cardiac tamponade give IV FLUIDS
  - If tension pneumothorax is suspected perform NEEDLE DECOMPRESSION as soon as possible
  - Prepare for rapid transfer for chest tube insertion
  - Treat sucking chest wounds with a 3-sided occlusive dressing
    - Prepare for rapid transfer for chest tube insertion
Management

• If suspected acute chest syndrome
  • Give OXYGEN
  • Give IV FLUIDS
  • May need HANDOVER/TRANSFER
Workbook Question 4

Using the workbook section above, list what you would DO to manage a person who presents with:

DIB, coughing and you suspect choking
1. 
2.

DIB, high fever, cough and you suspect serious infection
1.
2.
Workbook Question 4

Using the workbook section above, list what you would DO to manage a person who presents with:

DIB, hoarse voice and stridor on breathing in. You suspect airway inflammation

1.
2.
3.
Special Paediatric Considerations: Danger Signs

• Signs of airway obstruction (unable to swallow, drooling, stridor)
• Increased breathing effort
• Cyanosis
• Altered mental status
• Poor feeding
• Vomiting everything
• Seizures/Convulsions
• Low body temperature
Special Paediatric Considerations:

- Wheezing in children can be a viral infection or a foreign object
- Stridor can be caused by airway swelling or a foreign object
- Rapid breathing may be the only sign of pneumonia
- Rapid breathing can indicate DKA as the first sign of diabetes in children
Workbook Question 5

Using the workbook section above, list the paediatric danger signs:

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8.
Disposition of the Patient

• Ongoing Monitoring
  • Inhaled medications such as salbutamol only last approximately 3 hours
  • A severe allergic reaction can return when adrenaline wears off
  • Naloxone only lasts about 1 hour and may require repeat doses
    • Most opioid medications last longer than this
  • Following submersion injuries, a person may develop breathing problems later on

Remember these patients need to be monitored closely!
Transport Considerations

• Never leave a patient who might need definitive airway placement unmonitored during handover/transfer

• Make transfer arrangements as early as possible for any patient who may require assisted ventilation
Remember

• **Perform** ABCDEs first
• **Treat** life-threatening conditions
• **Take** a SAMPLE history
• **Do** an extended physical examination
• **Think** about causes
• **Think** about considerations in children
• **Think** about disposition and transport
Questions
Quick Cards
### Key ABCDE Findings (Always perform a complete ABCDE approach first!)

<table>
<thead>
<tr>
<th>IF YOU FIND...</th>
<th>REMEMBER...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choking, coughing</td>
<td>Foreign body</td>
</tr>
<tr>
<td>Stridor</td>
<td>Partial airway obstruction due to foreign body or inflammation (from infection, chemical exposure or burn)</td>
</tr>
<tr>
<td>Facial swelling</td>
<td>Severe allergic reaction, medication effect</td>
</tr>
<tr>
<td>Drooling</td>
<td>Indicates a blockage to swallowing</td>
</tr>
<tr>
<td>Soot around the mouth or nose, burned facial hair, facial burns</td>
<td>Smoke inhalation and airway burns – rapid swelling can block the airway</td>
</tr>
<tr>
<td>Signs of chest wall trauma</td>
<td>Rib fracture, flail chest, pneumothorax, contusion, tamponade</td>
</tr>
<tr>
<td>Decreased breath sounds on one side</td>
<td>Pneumothorax (consider tension pneumothorax if with hypotension and hyperresonance to percussion), haemothorax, large pleural effusion/pneumonia</td>
</tr>
<tr>
<td>Decreased breath sounds and crackles on both sides</td>
<td>Pulmonary oedema, heart failure</td>
</tr>
<tr>
<td>Wheezing</td>
<td>Asthma, allergic reaction, COPD</td>
</tr>
<tr>
<td>Fast or deep breathing</td>
<td>DKA</td>
</tr>
<tr>
<td>Low blood pressure, tachycardia, muffled heart sounds</td>
<td>Pericardial tamponade</td>
</tr>
<tr>
<td>Altered mental status with small pupils and slow breathing</td>
<td>Opioid overdose</td>
</tr>
</tbody>
</table>
### Key Findings from the SAMPLE History and Secondary Exam

<table>
<thead>
<tr>
<th>IF YOU FIND...</th>
<th>REMEMBER...</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIB worse with exertion or activity</td>
<td>Heart failure, heart attack</td>
</tr>
<tr>
<td>DIB that began with choking or during eating</td>
<td>Foreign body, allergic reaction</td>
</tr>
<tr>
<td>History of fever, cough</td>
<td>Pneumonia, infection</td>
</tr>
<tr>
<td>Pesticide exposure</td>
<td>Poisoning</td>
</tr>
<tr>
<td>Recent fall or other trauma</td>
<td>Rib fracture, flail chest, pneumothorax, contusion, tamponade</td>
</tr>
<tr>
<td>Known allergies, allergen exposure, bite or sting</td>
<td>Allergic reaction</td>
</tr>
<tr>
<td>Recent medication or dose change</td>
<td>Allergic reaction or side effect</td>
</tr>
<tr>
<td>History of opioid or sedative drug use</td>
<td>Overdose</td>
</tr>
<tr>
<td>History of wheezing</td>
<td>Asthma or COPD</td>
</tr>
<tr>
<td>History of diabetes</td>
<td>DKA</td>
</tr>
<tr>
<td>History of tuberculosis or malignancy</td>
<td>Pericardial tamponade, pleural effusion</td>
</tr>
<tr>
<td>History of heart failure</td>
<td>Pulmonary oedema</td>
</tr>
<tr>
<td>History of sickle cell disease</td>
<td>Acute chest syndrome</td>
</tr>
<tr>
<td>CRITICAL ACTIONS FOR HIGH-RISK CONDITIONS</td>
<td>CHOKING</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>CHOKING</strong></td>
<td>unable to cough, not making sounds</td>
</tr>
<tr>
<td>Remove any visible foreign body</td>
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<tr>
<td>Perform age-appropriate chest/abdominal thrusts or back blows</td>
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<tr>
<td>CPR if becomes unconscious</td>
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</tbody>
</table>
### SPECIAL CONSIDERATIONS IN CHILDREN

#### THE FOLLOWING ARE DANGER SIGNS IN CHILDREN WITH BREATHING COMPLAINTS:

- Fast breathing
- Increased breathing effort (chest indrawing/retractions)
- Cyanosis
- Altered mental status (including lethargy)
- Poor feeding or drinking, or vomits everything
- Seizures/convulsions, current or recent
- Drooling or stridor when calm
- Hypothermia

Wheezing in children is often caused by an object inhaled into the airway, viral infection or asthma.

Stridor in children is often caused by an object stuck in the airway or airway swelling from infection.

Fast or deep breathing can indicate diabetic crisis (DKA), which may be the first sign of diabetes in a child.

**FAST BREATHING MAY BE THE ONLY SIGN OF A SERIOUS BREATHING PROBLEM IN A CHILD.**

### DISPOSITION

Salbutamol and IM adrenaline effects last for about 3 hours, and life-threatening symptoms may recur. Monitor closely, always have repeat dose available during transport and caution new providers at handover.

Naloxone lasts approximately 1 hour, and most opioids last longer. Monitor closely, always have repeat dose available during transport and caution new providers.

Following immersion in water (drowning), a person may develop delayed breathing problems after several hours. Monitor closely and caution new providers.

Never leave patients with difficulty in breathing unmonitored during handover/transfer.

Make transfer arrangements as early as possible for any patient who may require intubation or assisted ventilation.