



Asthma Management

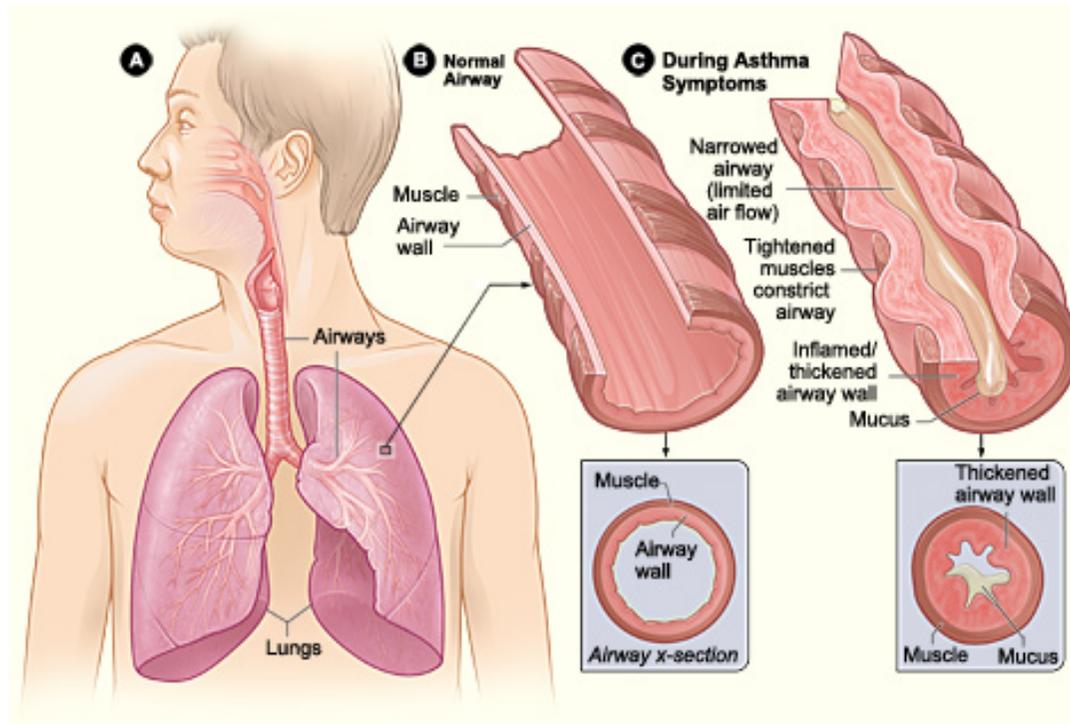


Photo from www.nhlbi.nih.gov

Course Overview

1. Recognition of the symptoms and signs
 - Basic Knowledge of asthma
 - Recognition of common symptoms
 - Recognition of the signs of asthma including Exercise Induced Asthma (EIA)
 - Recognition of the stages of an attack
 - Recognition of the signs of worsening asthma
2. Knowledge of appropriate use of reliever medication
 - Knowledge of reliever medications and their use
 - Knowledge of how to use a Spacer device with reliever medication
 - Knowledge of how to prevent/manage EIA
3. Ability to implement an Asthma First Aid Plan
 - Knowledge of an Asthma First Aid Plan (including when to call an ambulance/further medical assistance).

Legislation

- Queensland Government – Queensland Health
 - Asthma Management Courses Approved under Section 256B(1) of the Health (Drugs and Poisons) Regulation 1996
 - *“Recent amendments to the Health (Drugs and Poisons) Regulation 1996 allow for persons with appropriate asthma management training to **purchase** and **administer** specific asthma medication for first aid purposes.”*

Legislation

- The regulation states that:

“to the extent necessary to perform first aid at the workplace or community event, a person who has completed an asthma management course approved by the chief executive is authorised to administer S3 salbutamol or S3 terbutaline (S256b(1)).

In this section – community event includes a sporting or recreational event (S256B(2)).”

ALAQ Asthma Management certificate is approved under the Queensland Health legislation

1. Recognition of the symptoms and signs of asthma

Basic knowledge of Asthma

- Asthma is an inflammatory disorder of the lower respiratory system
- Lungs and air passages become sensitive and sometimes narrow

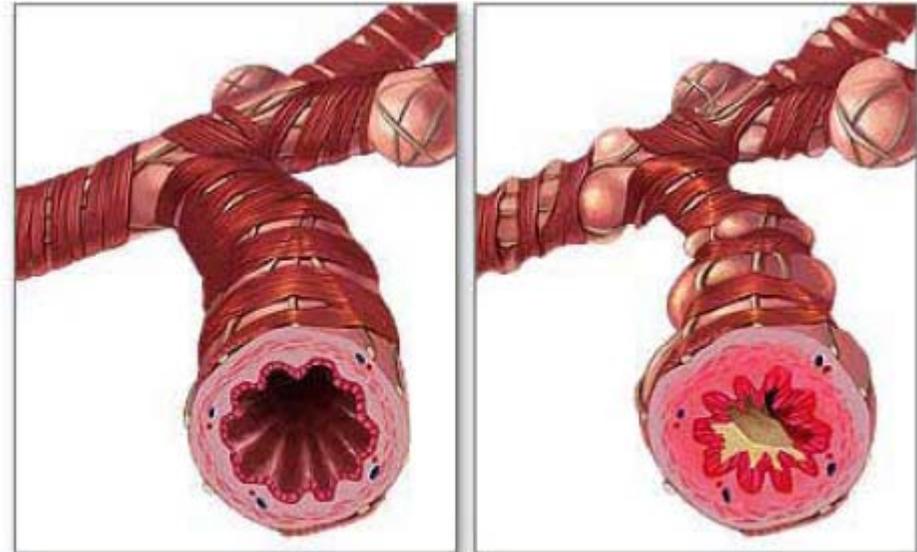


FIGURE 5.5 NORMAL AIRPASAGES (LEFT) AND ASTHMATIC AIR PASSAGES (RIGHT)

ACTIVITY 1

- What does it feel like to be an asthmatic?
 - Participants to perform the following actions
 - Take a full breath in
 - Then take another smaller breath
 - Exhale ONLY the small breath
 - Inhale again
 - Exhale ONLY the small breath

Basic knowledge of Asthma

- 3 Main Factors that can cause the airways to narrow:
 1. **Inflammation**
 - The inside lining of the airways becomes red and swollen
 2. **Bronchoconstriction**
 - The smooth muscle around the airways tightens
 3. **Sticky Fluid**
 - Extra mucus may be produced by the mucous membranes

A combination of these conditions can also apply

Basic knowledge of Asthma

- Triggers of Asthma

- In Asthma, symptoms are made worse by 'triggers'.
- Every person's asthma is different
- Triggers can include:

- Colds and flu
- Cigarette smoke
- Inhaled allergens (e.g. Pollens, moulds, dust mites, animal dander)
- Environmental Factors (e.g. Pollution, dust, wood smoke, bush fires)
- Exercise
- Changes in temperature and weather
- Certain medications (e.g. aspirin)
- Chemicals and strong smells (e.g. perfumes, cleaning products)
- Emotional factors (laughter, stress)
- Some foods and food preservatives

Recognition of common symptoms & signs

- How do you recognise asthma?
 - A dry, irritating, persistent cough, particularly at night, early morning, with exercise or activity
 - Chest tightness
 - Shortness of breath
 - wheeze

Recognition of common symptoms & signs

- Exercise Induced Asthma (EIA)
 - Occurs mostly due to people breathing through their mouth when exercising compared to breathing through their nose normally
 - Results in colder, drier air reaching the smaller airways causing water loss and cooling
 - In many instances, asthma symptoms occur soon after the completion of the exercise during the "cooling down" period, rather than during exercise.



Photo from www.asthmainformationguide.com

Recognition of the stages of an attack

MILD	MODERATE	SEVERE *
<ul style="list-style-type: none">• Cough, soft wheeze• Minor difficulty breathing• No difficulty speaking in sentences	<ul style="list-style-type: none">• Persistent cough or loud wheeze• Obvious difficulty breathing• Able to speak in short sentences	<ul style="list-style-type: none">• Very distressed, anxious• Gasping for breath• Able to speak only a few words in a breath• Pale and sweaty• May have blue lips

* Anyone having a severe asthma attack needs urgent medical treatment - call 000/112 for an ambulance

2. Knowledge of appropriate use of reliever medication

Knowledge of reliever medications and their use

- Asthma Medications

- There are 3 main groups of asthma medication
 1. Preventers
 2. Relievers
 3. Symptom controllers



Photo from www.montgomerycountymd.gov

Knowledge of reliever medications and their use

1. Preventers

- Inhaled medications

- Flixotide (orange)
- Intal Forte (white)
- Pulmicort
- Qvar (brown)
- Tilade (yellow)

- Oral Medications

- Singulair
- Prednisolone
- Prednisone



Knowledge of reliever medications and their use

1. Preventers

- Make the airways less sensitive
- Reduce the redness and swelling inside the airways
- Dry up mucus

“It may take a few weeks for preventers to reach their optimal effect”

- Preventers must be taken daily:
 - To keep you well
 - Reduce the risk of asthma attacks
 - Prevent lung damage

Knowledge of reliever medications and their use

1. Preventers – IMPORTANT NOTES

- Some people only need to use preventers for a set period of time – others may need to take them all year round
- Need to be taken at same time each day at dosage prescribed by the doctor
- Preventers take time to work – DO NOT stop taking medication after only a few days

Knowledge of reliever medications and their use

1. Preventers – IMPORTANT NOTES

DO NOT use preventers for First Aid management of an Asthma attack

Knowledge of reliever medications and their use

2. Relievers

- Inhaled medications
 - Airomir
 - Asmol
 - Bricanyl
 - Epaq
 - Ventolin (blue)



Photo from www.thisislondon.co.uk

Knowledge of reliever medications and their use

2. Relievers

- Provide relief from asthma symptoms within minutes
- Relax muscles around airways for up to 4 hours

Knowledge of reliever medications and their use

2. Relievers – IMPORTANT NOTES

- Blue reliever should ALWAYS be carried with the person
- It is ONLY medication to use in an emergency
- Using a reliever more than 3 times per week to ease asthma symptoms = may be a sign that your asthma is not well controlled
 - Check with your doctor.

Knowledge of reliever medications and their use

3. Symptom Controllers

- Inhaled medications
 - Foradile (pale blue)
 - Oxis
 - Serevent (green)
- Also called Long Acting Relievers
- Help to relax muscles around airways up to 12 hours
- Taken daily and only prescribed for people who are taking regular inhaled 'steroid' preventers

Knowledge of how to use a Spacer device with reliever medication

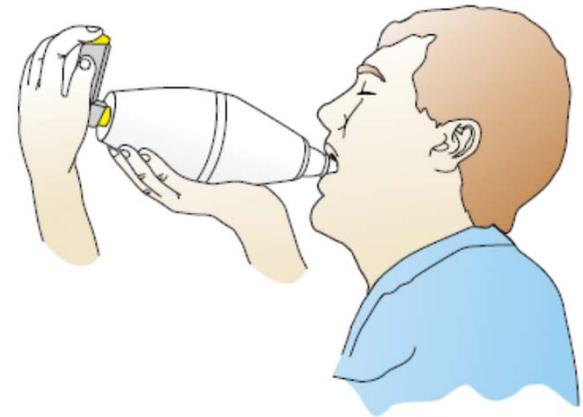
- Using a reliever alone – only 10% of medication gets to the desired area i.e. lower airways
- Using a Spacer can assist in delivering up to **4 X more** medication than reliever alone



Photo from www.ecx.images-amazon.com

Knowledge of how to use a Spacer device with reliever medication

- Administration of reliever medication using a spacer
 1. Shake the 'puffer'
 2. Insert 'puffer' into the spacer
 3. Ensure patient places their mouth over the mouthpiece and gets a good seal
 4. Press down once (1) on the puffer and ask patient to breath in and out **4 times**.
 5. Repeat this promptly until **4 puffs** have been given



Knowledge of how to prevent/manage EIA

1. Make sure the person's day to day asthma is under control
2. Ensure person uses blue reliever 5-10 minutes BEFORE they warm up
 - Other asthma medication may be used in replace of blue reliever – ONLY if a doctor has directed them
3. Ensure the player ALWAYS WARMS UP before any sport/exercise
 - Should consist of 15-20 minutes of light, intermittent exercise and stretching

Knowledge of how to prevent/manage EIA

- Player experiences asthma symptoms during sport/exercise?
 1. Get the person to STOP exercising
 2. Have them take 4 separate puffs of their blue reliever, with a spacer if possible
 3. Exercise should be restarted ONLY if they can breathe easily and are free of symptoms

Knowledge of how to prevent/manage EIA

- If Symptoms do not go away immediately, or return when they start exercising again?
 - Use their blue reliever inhaler as before
 - Not return to any exercise for the rest of the day
 - Seek medical advice on asthma management

3. Ability to implement an Asthma First Aid Plan

Knowledge of an Asthma First Aid Plan

- **Step 1**

- Sit the person upright, remain calm and provide reassurance
- Do not leave the person alone

- **Step 2**

- Give **4 puffs** of a Blue Reliever puffer
 - 1 puff at a time – preferably through a spacer
 - Ask the person to take 4 breaths from a spacer after each puff

- **Step 3**

- Wait **4 minutes**

- **Step 4**

- If little or no improvement, repeat steps 2 & 3 above
- If there is still little or no improvement – Dial 000
 - Continue to repeat Steps 2 & 3 while waiting for an ambulance to arrive

Knowledge of an Asthma First Aid Plan

- If there are signs of a severe asthma attack – call an ambulance straight away and follow Asthma First Aid Plan while waiting for the ambulance
- If the patient has a personal written asthma action plan, then that plan should be followed.
- If there is no plan – follow the 4 steps of the Asthma First Aid Plan listed on previous slide.
- If oxygen is available & a person qualified to use it
 - Administer oxygen at a flow rate of at least 8 litres per minute through a face mask.

**CPR MAY BE REQUIRED IF THE CASUALTY
BECOMES UNCONSCIOUS**

ACTIVITY 2

- How to conduct Asthma First Aid Management Plan!
 - Participants to practice delivering the 4 steps of the Asthma First Aid Management plan to a fellow participant
 - DO NOT ACTUALLY ADMINISTER PUFFER/MEDICATION
 - SIMULATE ALL STEPS AS CLOSE AS POSSIBLE TO REAL LIFE.

REFERENCE LIST

- SLSA First Aid Manual – Version 2
- Australian Resuscitation Council
- Asthma Foundation of Queensland
 - Associated resources