

Asthma

An interprofessional case study



Asthma - an interprofessional case study

At the end of this presentation students will be able to:

- Give a definition of asthma
- Discuss what could cause asthma
- Identify four triggers of asthma
- Describe symptoms of an asthma flare-up
- Explain three asthma treatment strategies
- Develop an interprofessional plan of care for an asthma sufferer

What is asthma?



What is asthma?

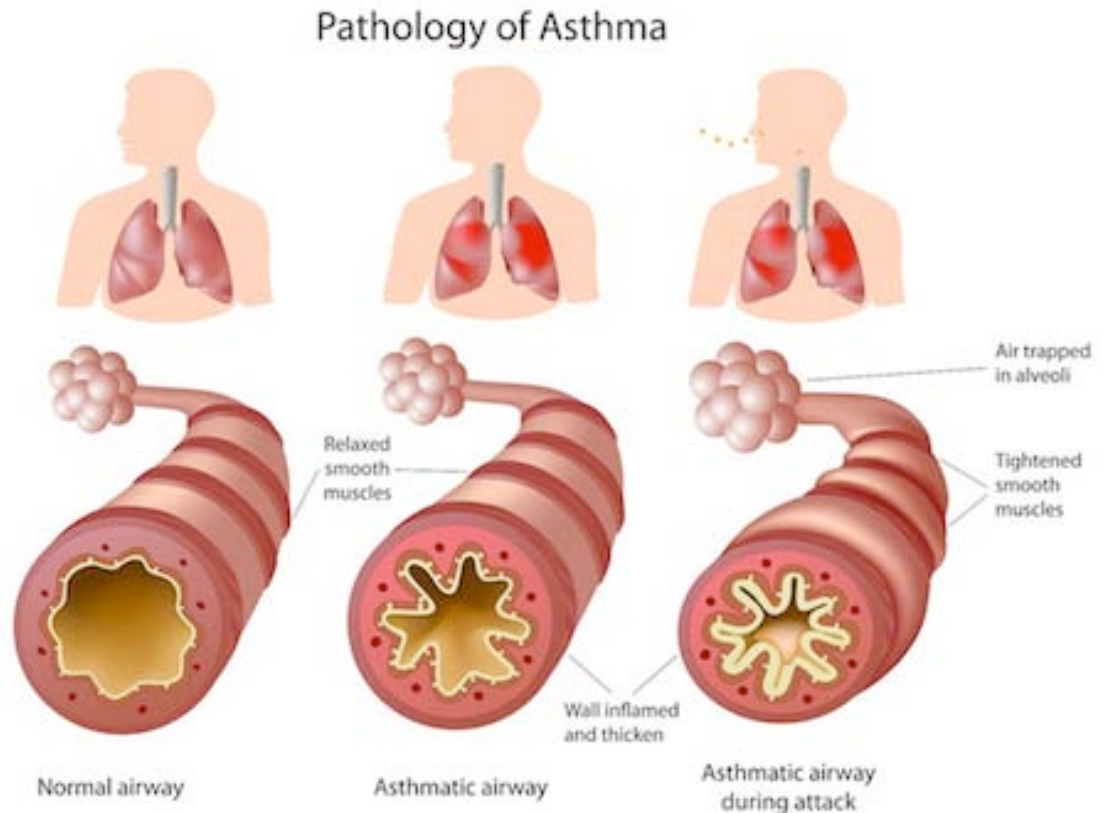
‘Asthma is a chronic inflammatory disorder of the airways that is characterised by recurrent episodes of wheezing, breathlessness, chest tightness, and coughing’.

Lemone and Burke 2000



What causes asthma?

Cause not really known, though clear links to both genetics (family history) and environment.



What are some of the factors contributing to the development of asthma?

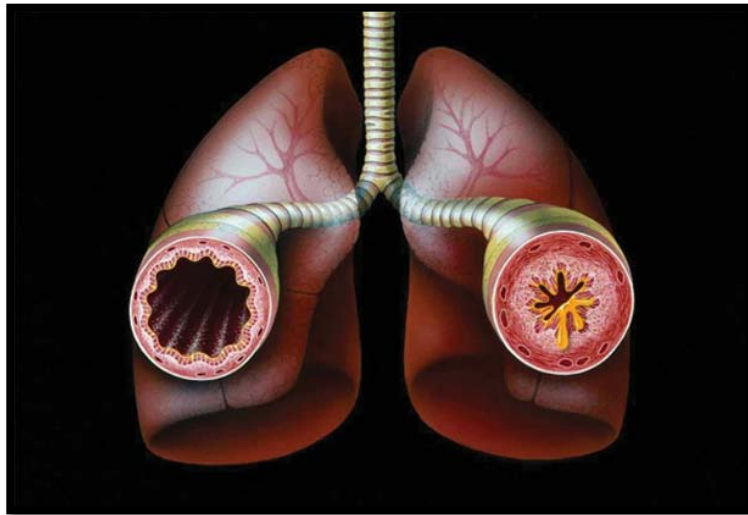


Factors contributing to development of asthma

- ◆ Genetic factors
- ◆ Obesity
- ◆ Smoking mothers
- ◆ Air pollution
- ◆ Modern diets
- ◆ Exposure to allergens
- ◆ Exposure to tobacco smoke
- ◆ Children: more common among boys
- ◆ Adults: more common among women
- ◆ Smoking during pregnancy however breast-feeding reduces risk
- ◆ Respiratory infections as an infant
- ◆ Occupational asthma - exposure to certain substances in the workplace

www.asthmafoundation.org.au

What are the triggers for an asthma flare up?



molds



animals



feathers



pollen



certain foods



cigarette smoke



dust

www.drugster.info

What happens during an asthma flare up?



<http://kidshealth.org/misc/movie/cc/how-asthma-affects.html>

The Peak Flow Meter

- Measures how fast patient breathes out
- PEF: peak expiratory flow.
- Used to help diagnose asthma, check response to treatment, or recognise when asthma is getting worse
- PEF needs to be measured regularly to be useful. Use same device (or 'meter') for consistency



Treatment - medication

Divided primarily into ‘relievers’, ‘preventers’ and ‘symptom controllers’.

Most asthma medicines are delivered by an inhaler device, although some are available in tablet or liquid form.

In hospitals, medication may be given by intravenous infusion.



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Treatment - medication

Relievers

- Fast acting
- Bronchodilators e.g. Salbutamol, Ventolin



Treatment - medication

Preventers

- Make airway less sensitive
- Reduce redness and swelling, dry up mucus
- Take time to take full effect
- Most commonly inhaled corticosteroids e.g. Seretide or Symbicort



Treatment - medication

Symptom controllers

- Long-acting relievers which relax airway muscles
- Prescribed if patient already taking preventers and still have symptoms
- Can make symptoms worse if taken on their own!
- Serevent is a symptom controller



Simple changes to eliminate the symptoms

- Re-consider pets in the home
- Replace carpets with hard floors
- Anti-allergenic bedding
- Regular vacuuming/steam cleaning of mattresses and household furniture
- Consider diet changes
- Review medication regularly



Proper warm-up and cool-down may prevent or reduce the incidence of exercise-induced asthma



ADAM

Complementary therapies - any benefits?

Herbal remedies, such as ginkgo biloba, have been identified as potential agents for further research as asthma treatments.

Breathing techniques, such as the Buteyko technique — some studies have shown a subjective improvement of symptoms and reduction in use of reliever medication.

Relaxation techniques, such as yoga — the evidence for a benefit in asthma is inconclusive.

Acupuncture and Hypnosis — current evidence doesn't support it as treatment for asthma.

Homeopathy, which can involve preparing a medicine that includes a tiny amount of the element that triggers an allergic reaction, such as house dust mites and then diluting it until no trace of the element remains — research is inconclusive.

Dietary modification — people with diagnosed food allergies should avoid certain foods, however, routine dietary restrictions in people with asthma have not been shown to be beneficial. Some food supplements, such as fish oils may offer benefit in asthma.

Activity – case study

In groups, examine the following case study and prepare answers for the following questions:

1. What health concerns can you identify with Mrs Joy?
2. What would a health professional consider when developing a care plan for this individual?
3. Consider how each discipline within the interprofessional health care team can help the individual to achieve their goals.

Case Study

Mrs Joy – 55 years of age

Employment : Full time office administration

W: 83kgs

H: 174cm

BMI : ?

BP: 132/93

RHR : 83 bpm

Fasting Glucose : 5.3 mmol/L **Total Cholesterol** : 2.3mmol/L

Exercise : Tries to go to the gym 3 x a week but find she gets very short of breath. She believes this is due to her low level of fitness and excess weight. She tries to work in her garden regularly , but finds she also gets very out of breath, even with minimal exercise. She also becomes quite congested and sometimes feels a bit faint.

Smoker: No **Drinking habit**: A glass of red wine every night

Musculoskeletal : Mrs Joy often gets headaches and lower back pain, particularly after long working days.

Case Study

Diet :

Breakfast : Full cream Greek Yoghurt with honey and mixed seeds.

Morning tea: 2 Anzac biscuits and packaged soup

Lunch : Subway - usually seafood or meatball sub on wheat bread

Afternoon tea: Mixed nuts and dried fruit and a cup of milk with
Nesquik

Dinner: Seafood (shrimps or prawns) or chicken with frozen veg

Desert: Packaged mousse or custard with choc covered macadamia
nuts

Other : Mrs Joy says she is always tired and lacking energy, even after an early night. She attributes this to stress in particular some strain in her relationship/marriage. Her husband complains of her heavy snoring.

Case Study

Mrs Joy does not take any medications except her Ventolin inhaler when she absolutely needs it.

On further discussion, you find out she does have a history of asthma, which was particularly bad when she was a child, but she reports improvements in this condition since adolescence.

She only uses her Ventolin inhaler when she feels extremely out of breath (usually with exercise) and very rarely uses her preventor, only when she had an attack last year. She says this is because she saw an article on Wikipedia about the dangers of regular Ventolin use.

She doesn't otherwise believe her asthma is a problem, although admits she has never really known much about it.

1. What health concerns can you identify?

- Asthma - Potential allergies or intolerances including possibly food
- Overweight
- High blood pressure
- Possible sleep apnoea
- Headaches and lower back pain – Musculoskeletal issues
Consider tight neck and shoulder muscles; bad posture; inappropriate office chair; muscle imbalances; poor gardening posture; inadequate overall body strength.

2. What would a health professional consider when developing a care plan for this individual?

- Weight management
 - Exercise program
 - Dietary assessment
- Asthma management
 - Medication
 - Allergies: diet & environment
- Pain management

3. Consider how each discipline within the interprofessional health care team can help the individual to achieve their goals

Who can help?

- Doctor/Nurse
- Exercise Physiologist/Physiotherapist
- Dietitian
- Clinical Psychologist

How do we help?

Doctor/Nurse

The doctor or nurse will complete a medical history and physical assessment of the client and review medications.

A doctor, nurse or pharmacist can provide information about the medication taken and how this should be taken.

Health assessments will include pain score and pain management of the lower back and headaches, as well as looking into other health concerns.

Provide education about inhaler techniques.

Provide education about the specific monitoring of asthma and exploration of triggers.



How do we help?

Exercise Physiologist/Physiotherapist

The aim is to increase fitness and overall strength and treat musculoskeletal tightness and back discomfort. Improving core strength may help.

The Physiotherapist can specifically assess posture and work position.

Compliance with an individual exercise plan will build confidence, strengthen muscles and help to keep the individual fit and active, enhancing quality of life.

Resulting weight loss may aid in reducing symptoms.



How do we help?

Dietitian

The Dietitian will assess the client's diet and make recommendations for weight loss and healthy eating.

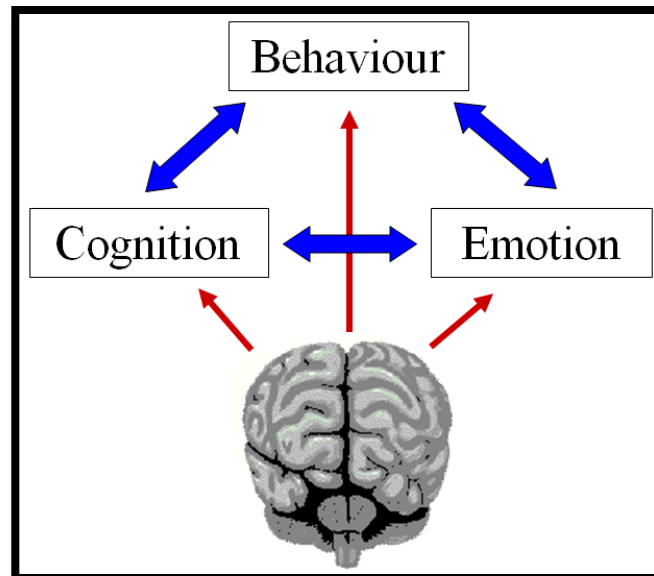
He or she will also be able to consider possible food allergies or intolerances related to asthma.



How do we help?

Clinical Psychologist

Helps the client to address any barriers or motivational issues surrounding weight loss and exercise. They may also be able to explore any marital problems or other stresses.



Key IPL Discussion Points

1. How can we ensure that the care is client centred?

- Actively encourage client involvement in clinical decision making
- Respond to the changes in the client's needs
- Discuss with the client what care options are available
- Encourage self management, health promotion and disease prevention

Key IPL Discussion Points

2. How can we demonstrate effective communication with other members of the interprofessional team?

- Show respect and interest when listening to other team members' ideas and viewpoints; do not dominate discussions and activities
- Come to an agreed care plan
- Use terminology that is understood by members of the interprofessional care team and provide clarification when required.

Key IPL Discussion Points

3. How does an interprofessional team differ from a multidisciplinary team?

- Identify where each health disciplines fits within this interprofessional team, acknowledging skills and knowledge of team members
- Consider where disciplines overlap so that duplication is avoided and where disciplines enhance others in the provision of health care
- Identify misconceptions relating to own and health professions listed in this case study
- Holistic client centred care: client is part of the decision making

Questions?



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