

# Asthma

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# Asthma morbidity

- 15 – 20% of children
- In a class of c30 children likely to be 4-5 children with asthma
- In infancy more common in boys but becomes more common in girls during transition to adolescence

# Asthma mortality

- c1400 deaths per year
- Rate falling since late 80s but still unacceptable

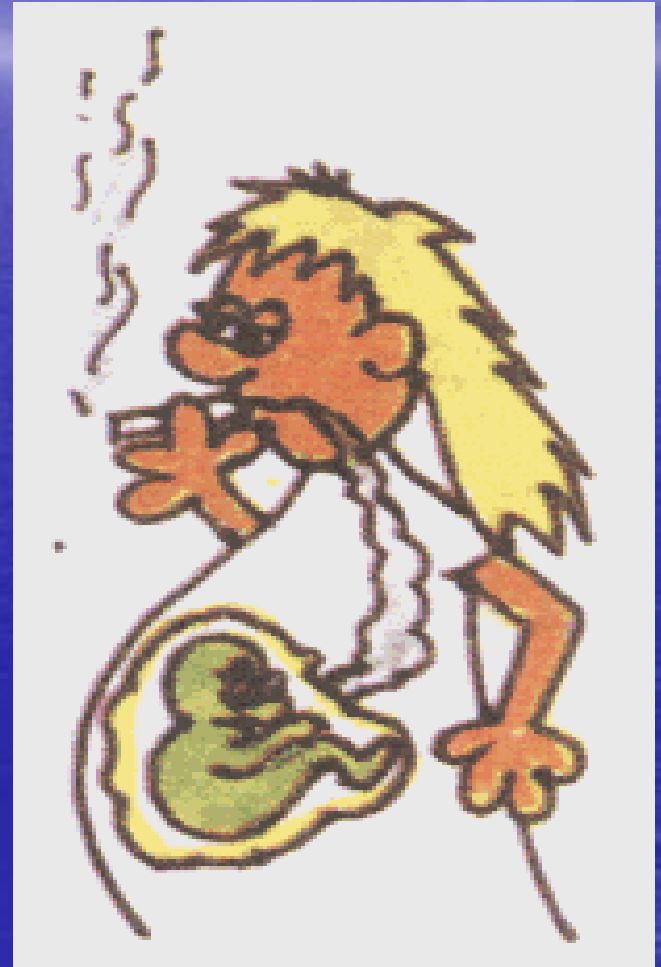
# Causes of asthma

- Environment
- Hereditary
- Pollution
- Living conditions



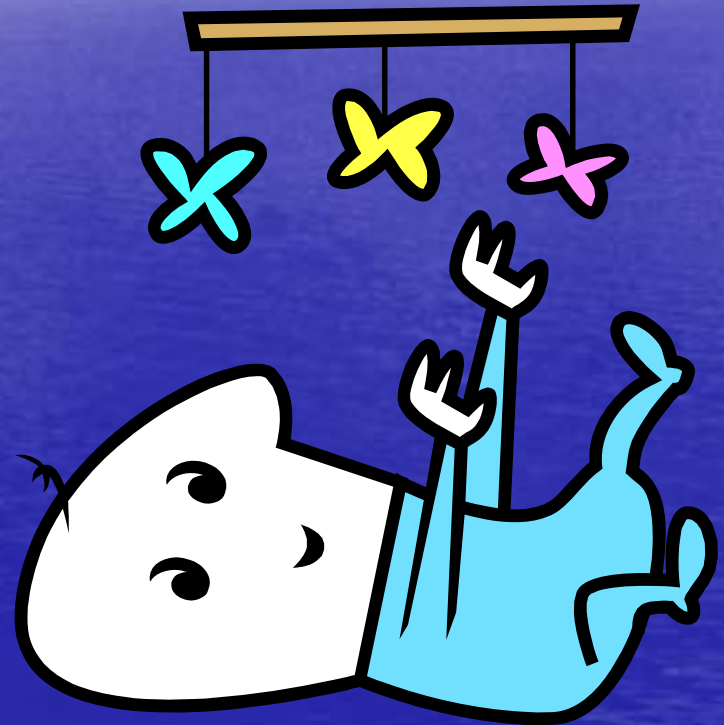
# Causes of asthma

- Maternal smoking is associated with significantly higher prevalence of wheezing illness in early childhood



# Age at presentation

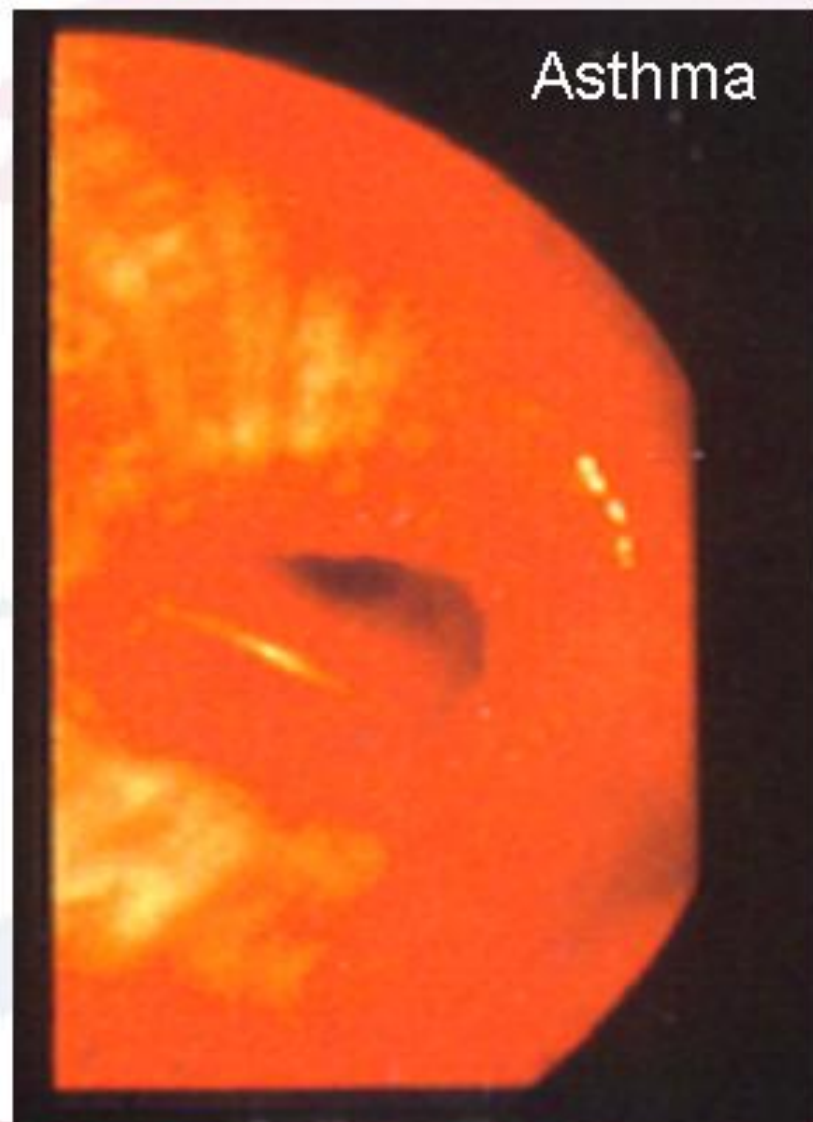
- The earlier the onset, the better the prognosis
- Majority presenting before two years of age, become asymptomatic by mid childhood.



# What is asthma?

- An inflammatory condition of the lungs which causes the airways to become over sensitive to certain triggers eg dust, viral infections and pollens.
- This causes spasm of the airways leading to airway narrowing, excessive production of mucus and resulting in the symptoms of asthma.

# Asthma - an inflammatory disease



# Asthma triggers

- Pets
- Exercise
- Smoke
- Fumes
- Strong smells
- House dust mite
- Viral infections
- Pregnancy
- Menstruation
- Some drugs
- Food allergies
- Pollens
- Cold air
- Hot air

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**ANYTHING!!**



# Asthma signs and symptoms

- Cough
- Wheeze
- Breathlessness
- Tight chest
- Often worse at night
- Can be sudden onset
- Response to triggers
- Symptoms could be chronic or acute

# Asthma treatment

- Majority of asthma medication given in the form of inhalers
- Inhaled medication works quicker and has less side effects



# Asthma management

- Preventer – usually a steroid inhaler, damps down inflammation and helps to prevent the symptoms of asthma.
- Inhaler could be brown, orange, red or purple.
- MUST be taken every day.
- No need for this inhaler to be in school

# Asthma management

- Reliever – opens up narrowed airways
- Inhaler usually blue – only taken when needed.
- Increased use of reliever inhaler indicates worsening asthma
- Should be available always

# Asthma and physical exercise

- Children with asthma should be encouraged to exercise
- Not all children with asthma will have exercised induced symptoms



# Asthma and physical exercise

- Care with long distance running (especially on cold frosty days)
- Encourage child to take reliever inhaler 20 – 30 minutes BEFORE exercise
- May need to build up exercise tolerance slowly following acute episode / hospital admission

# Signs of deteriorating asthma

- There is often a period of recognisable deterioration before an acute attack happens
- This can be over a few days or even weeks
- In rare instances could be sudden and catastrophic (brittle asthma)

# Deteriorating asthma

- Waking at night with coughing, wheezing or breathlessness
- Needing to use reliever inhaler more often than usual
- Effects of reliever inhaler does not last as long as usual
- Increased symptoms during or following exercise

# Treatment for asthma attack

- Use reliever inhaler (usually blue) as soon as possible
- Stay calm and reassure child
- Ensure child is sitting upright and leaning forward



# Asthma attack

- If the child has recovered return to normal school activities
- Inform parents

# Acute severe attack

- Extreme breathlessness and/or cough
- Reliever medication does not work
- Child has difficulty with talking, or is unable to talk in sentences without taking a breath in the middle
- Child is becoming exhausted or distressed

# Treatment acute/severe attack

- Stay calm! Do not put your arm around the child's shoulders as this can be very restrictive
- Sit child upright and encourage slow deep breathing
- Give a further two puffs of the reliever inhaler, dial 999 and contact parents
- Schools Asthma Policy: Flow Chart page 11.

# Treatment acute severe attack

- While waiting for medical help / ambulance up to 10 puffs of the reliever inhaler can be given if necessary.
- Schools Asthma Policy: Flow Chart page 11.

# Asthma treatment

- Medicines and inhalers for asthma are prescription only medicines (POMS)
- Should only be used by the person for whom they have been prescribed
- What do you do if a child has lost or forgotten to bring their inhaler to school?

# Asthma Emergency Kit

Provided, on request, for schools in Cornwall

Only to be used when:

- The child is known to have asthma
- The child is unable to take their own medication
- The child's own medication is unavailable
- The child is having an attack of asthma

# Asthma Emergency Kit



**Instructions for use of this  
kit are on page 12 Schools  
Asthma Policy**

# Safe storage of medicines

- Children with asthma should be responsible for their own inhalers
- If not practicable, should be labelled and kept in a cupboard or drawer which is easily accessible
- Inhalers should be available when children are away from school eg on school trips or doing games

# Safe storage of medicines

- Asthma inhalers are extremely safe and should not pose any threat or danger if they are inadvertently used by non-asthmatic individuals

# Schools' Asthma Policy

- To ensure that asthmatic children in Cornwall and Isles of Scilly schools are able to safely take part in a full school life and to develop their potential, both academically and emotionally.

Any questions

