

## **Understanding Cough, Wheezing and Noisy Breathing in Children**

### Introduction

Symptoms such as cough, wheezing or noisy breathing can be caused by a number of conditions. When these occur, it is natural for parents to feel anxious and worried. This pamphlet will help you to better understand your child's cough or noisy breathing symptoms so that you can talk about them with your doctor.

### Background

Cough is the most common reason for children presenting to their doctor with the most usual cause being an upper respiratory infection. Sometimes cough may be related to a more serious problem.

Noisy breathing, specifically wheezing, is a symptom that results from narrowing of the lower airways. Asthma affects one out of every nine or ten Australian children however, while wheeze in children is often called asthma, not all wheezing is related to asthma.

### Cough

Very young children develop about six respiratory tract infections (or colds) per year, commonly caused by a virus. These are usually accompanied by a cough. If your child has no other symptoms and the cough is dry, a serious cause for the cough is unlikely. In most children the cough will run its course within one to three weeks without medical treatment, but it can sometimes last longer.

If you are concerned about your child's cough it is a good idea to take your child to your doctor. If your child becomes unwell (e.g. high fever with poor feeding/drinking, decreased wet nappies, or difficulty breathing) you should also return to your doctor.

Generally, if a child experiences a daily cough for more than four weeks other possible causes for the cough should be considered and discussed with your doctor. Your doctor will check for other causes of the cough and if you are still concerned, they can refer you to a specialist.

Cough medicines are not useful in treating cough in children. However honey, either by itself or mixed in a non-caffeinated drink, may reduce the severity of a cough.

Finally, cigarette smoke will make your child's cough worse, so it is very important that you avoid exposing your child to tobacco smoke.

### Wheezing and Asthma

Wheeze is a whistling sound from the chest on breathing out. Wheeze is a classic sign of asthma but there are also other causes of wheeze in children. In very young children wheezing is most commonly related to a viral infection.

In fact, among pre-schoolers with repeated bouts of wheezing, only 30% will have asthma at six years of age. However, at a young age it is difficult to know whether or not your child will have asthma at six years of age.

Doctors sometimes call wheeze related to a viral infection and not asthma, 'viral-associated wheeze' or 'viral-induced wheeze'. This type of wheeze may not respond to medications used for asthma.

However, in children with asthma, most acute wheezing episodes are also caused by viral infections. This is why asthma medicines are sometimes tried in children with a wheeze. When a child does not respond to asthma medication they are less likely to have asthma.

If you are worried about any cause of wheeze in your child you should take them to your doctor.

Children with asthma have ongoing changes within their lungs that make them more likely to react to 'triggers' such as:

- Colds (viral respiratory infections);
- Physical activity;
- Cold air; or
- House dust mites, pollens or cat fur (dander).

Common asthma symptoms in young children are:

- Wheezing (a whistling sound in the child's chest);
- Breathlessness;
- A feeling of tightness in the chest; or
- Coughing (cough commonly occurs in children with asthma but in the absence of other symptoms, cough alone is rarely due to asthma).

These symptoms happen when the flow of air through the tubes inside the lungs is partially blocked. The blockage is caused by a combination of three things that happen inside the lungs:

- Tiny muscles around the airways tighten, so that the tubes become narrower;
- The walls of the airways become swollen; and

- There is more mucus inside the airways.

In most children, asthma symptoms are intermittent but some children can have chronic (continuing/lingering) asthma or unrecognised chronic asthma symptoms.

This is why it is important for children with asthma to have regular check-ups by a doctor to make sure their asthma is under control and the child can grow normally and be healthy and active.

Some children will have asthma symptoms more often, and a small group will have symptoms on most days. The good news is that in children, most symptoms are easily controlled with medications and for most children asthma will improve as they grow older.

It is important to discuss noisy breathing, wheezing and cough with your doctor as while most children with asthma will experience these symptoms, they are not always related to asthma.

### Noisy Breathing

In addition to wheezing there are other causes of noisy breathing in children. These include:

- Stridor - Noise when breathing in (unlike wheezing which is usually heard on breathing out) associated with croup or other causes of blockage of the upper airways;
- Snoring - Noise when breathing in experienced during sleep and due most commonly in children to enlarged tonsils & adenoids;
- Stertor - a snorting or snuffly type of noise mostly related to nasal obstruction;
- Rattly breathing - Wet sounding noise on breathing in or out, usually reflecting the presence of excess mucus in the airway.

None of these are normal and you should bring your child to see a doctor if any of these noises last a long time.

### Things to tell your doctor about your child's cough

Tell your doctor if your child:

- Experiences shortness of breath (dyspnoea) when active or at rest/at night;
- Has repeated episodes or chronic (continuing/lingering), wet or productive (brings up mucus) cough;
- Fails to thrive (does not appropriately grow in size or mature physically);
- Has a fever or experiences weight loss;
- Has difficulty feeding/drinking (such as vomiting or choking);

- Develops a high pitched wheeze or other respiratory noise;
- Experiences repeated bouts of pneumonia;
- Is on any particular medications; or
- Coughs or chokes with feeding or drinking.

Listen to your child's cough so that you can report to your doctor if their cough has any of the following characteristics:

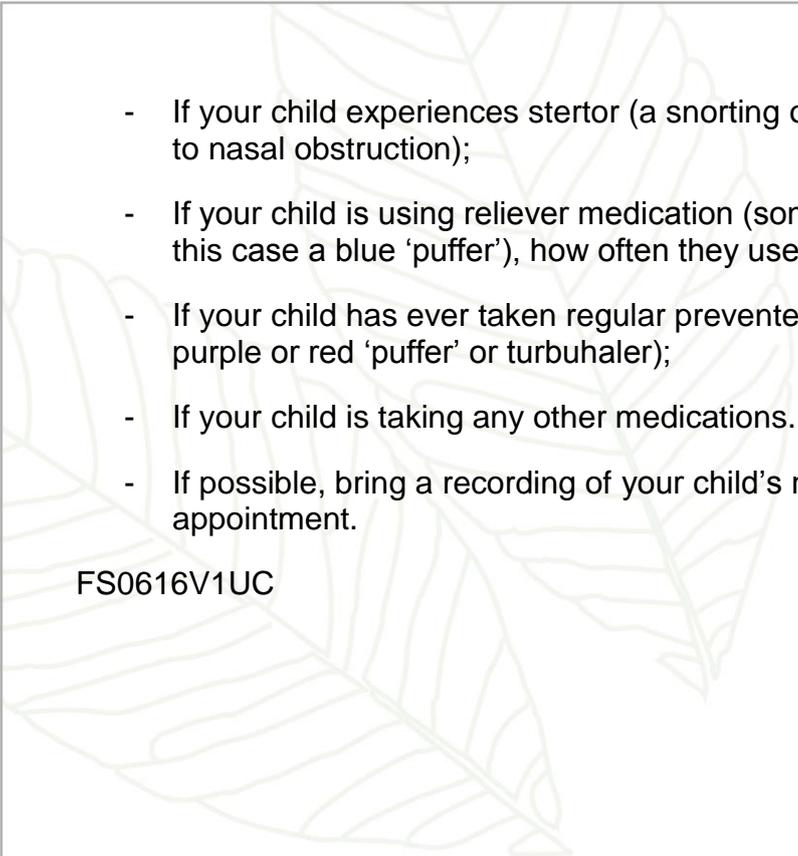
- Barking or brassy cough (sounds like the barking of a seal);
- Honking cough (similar to the sound a goose makes);
- Paroxysmal cough (prolonged episode of repeated coughing with no breath in) which may or may not be followed by a 'whoop' (a loud noisy breath in after the prolonged cough often described as a 'coughing fit')
- Staccato cough (short and sudden bursts of coughing)
- Produces fragments of thick, stubborn mucus; and/or
- Persistent wet/productive cough in mornings only.

If possible, bring a recording of the coughing episode to the doctor's appointment. The more information you are able to provide your doctor regarding your child's cough the better your doctor can assist you and your child.

Things to tell your doctor about regarding your child's wheezing or noisy breathing

Tell your doctor:

- How often your child has wheezing, shortness of breath and coughing;
- If your child wakes at night because of coughing or wheezing, or usually coughs when they exercise;
- If your child struggles to keep up with normal activities;
- If there is anything that seems to trigger/make the wheezing worse;
- If anyone in your family has allergies, asthma or other diseases affecting the lower airways;
- If your child has any other allergies or eczema;
- If your child has been exposed to cigarette smoke during pregnancy or after birth;
- If your child snores during sleep;
- If your child experiences rattly breathing (wet sounding noise on breathing in or out);
- If your child experiences stridor (noise when breathing in);

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- If your child experiences stertor (a snorting or snuffly type of noise mostly related to nasal obstruction);
  - If your child is using reliever medication (sometimes referred to as 'puffers' – in this case a blue 'puffer'), how often they use it;
  - If your child has ever taken regular preventer medication (usually an orange, brown, purple or red 'puffer' or turbuhaler);
  - If your child is taking any other medications.
  - If possible, bring a recording of your child's noisy breathing to the doctor's appointment.

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Please consult your family doctor or specialist respiratory physician if you have further questions relating to the information contained in this leaflet. For details of patient support groups in Australia please call 1800 654 301.