



Milton Keynes
University Hospital
NHS Foundation Trust

Viral induced wheeze

A guide for parents

What is viral induced wheeze?

Viral induced wheeze is when the tubes carrying air to the lungs (airways) become irritated and inflamed by a cold virus. This causes the tubes to swell and narrow making it difficult for your child to breathe.

Viral induced wheeze is a common childhood illness which affects a third of all children.

It can occur as a one off or can happen repeatedly when your child picks up viral respiratory infections.

A wheeze is a high-pitched whistling noise coming from the chest and is mostly heard when breathing out. It usually starts with a cough and runny nose, then a wheeze can develop which usually lasts 2-4 days but occasionally these symptoms can last a little longer.



Increased risk factors for viral wheeze are:

- If your child was born prematurely
- If they had an episode of bronchiolitis in infancy
- Are exposed to cigarette smoke

Is viral induced wheeze the same as asthma?

No, although the episodes look like an asthma attack, children with viral induced wheeze are completely well in-between episodes, unlike children who have asthma.

The difference between asthma and viral induced wheeze is that children with asthma will wheeze at times other than when they have a cold. Often with exercise, or when they are exposed to particular 'triggers' like house dust mites or pets.

Most children who have viral induced wheeze will improve year on year with symptoms often resolving by the time they reach school age.

A small number of those children will go on to develop asthma in the future.

Children who develop asthma are more likely to have eczema or hay fever or a family history of asthma, eczema, and hay fever.

How to treat viral induced wheeze?

If your child is becoming wheezy, short of breath or is coughing excessively a medicine called Salbutamol (a blue coloured inhaler) can be used, it works by relaxing the muscles of the airways into the lungs, calming down the inflammation which will make it easier for your child to breathe.

The medicine is most effective when given through an inhaler with spacer. This helps the medicine get down into the lungs where it needs to work. Salbutamol can also be given through a nebuliser machine which changes liquid medicine into a fine mist. Nebulisers are only given in hospital as they need oxygen to work.

If your child has a fever or is in discomfort you can give them paracetamol to help relieve symptoms (always read the label)

Like all children with a cold virus, it is important they get plenty of fluid to prevent dehydration and rest.

Support your child to sit in an upright position as this will help to expand the lungs and improve breathing.

Keep them off school or nursery until you feel they have recovered.

Should my child have antibiotics?

Antibiotics are not effective against viral illnesses so are very rarely prescribed to treat viral induced wheeze.


Should my child have oral steroids?

For more severe episodes a 3-day course of oral steroid tablets (prednisolone) may be given to settle down the inflammation in the airways.

Management of viral induced wheeze in hospital:

Not all children admitted into hospital will need to be treated using a nebuliser if their oxygen levels are okay, most viral wheeze episodes can be treated just as well using a Salbutamol inhaler with a spacer.

In most cases no investigations are required as this diagnosis is made by the doctor taking a history of the illness and by examination alone.



Some children may need to stay overnight in hospital if they are very wheezy, require oxygen or are not lasting 4 hours between Salbutamol doses, or are having trouble feeding.

If your child is very breathless, they may require medications to be given intravenously (into the vein).

Once your child is managing on 4 hourly Salbutamol inhalers, they can be discharged home, with a follow up arranged for 48 hours post discharge or advice given to see their GP in 48 hours if they live out of the local area.

Your child will be discharged home and advised to continue the Salbutamol inhaler for a few more days. A treatment plan will be given on discharge for you to follow.

It is important to continue to monitor your child making sure their symptoms do not start to worsen. If this happens arrange to see your GP.

Should my child be treated with medication to prevent future episodes?

Pre-school children can have multiple episodes of viral wheeze (4 or more a year) related to viral respiratory tract infections. This can make it hard to distinguish viral induced wheeze from early asthma, making management difficult.

Therefore, a trial of an inhaled corticosteroid maybe suggested (Beclomethasone) with a follow up review arranged with the asthma nurse, and to be stopped if no improvement is seen.

Management plan home guide for viral induced wheeze:

1. Start 2-4 puffs of Salbutamol through a spacer 4 hourly for milder episodes of coughs with a cold or wheeze.
2. If symptoms are no worse but have not improved after 48-72 hours, please seek a medical review from your surgery, NHS 111, or the urgent care centre if out of hours.
3. For more moderate episodes or if symptoms are not improving on 2-4 puffs increase up to 6 puffs 4 hourly, and follow step two if no better after 48 hours.
4. If symptoms are not improving, or any doses of Salbutamol given are not lasting 4 hours, or if you are worried symptoms are worsening, please seek urgent medical attention.
5. If this happens give 10 puffs of Salbutamol (1 puff to 5 breaths wait 30 seconds, then repeat up to 10 times) If symptoms improve, please arrange an urgent review the same day. If no improvement within a few minutes call 999 and repeat the 10 puffs every 10 minutes until the ambulance arrives.

How to use my child's aerochamber with mask

1. Shake the inhaler and put in the hole at the end of the chamber.
2. Position the mask over your child's mouth and nose to make a seal.
3. Push the top of the inhaler canister to release one dose of the medication (one puff).
4. Encourage your child to take 5 normal breaths or count to 10 ensuring the valve in the mask flutters.
5. Wait for 30 seconds, repeat the steps until the correct amount of 'puffs' have been given ensuring to shake the inhaler in-between.

How to use my child's aerochamber with mouthpiece

1. Shake the inhaler and put in the hole at the end of the chamber.
2. Ask your child to put their mouth around the mouthpiece to make a seal with their lips and teeth.
3. Push the top of the inhaler canister to release one dose of the medication (one puff).
4. Encourage your child to take 5 normal breaths in and out ensuring the valve in the mask flutters.
5. Wait for 30 seconds, repeat the steps until the correct amount of 'puffs' have been given ensuring to shake the inhaler in-between.

How to look after your aerochamber

Your chamber should be cleaned once a month and changed yearly.

- Take your chamber apart and gently wash with warm water and detergent (e.g. washing up liquid).
- Leave to air dry as this helps to prevent the medicine sticking to the sides of the chamber.
- When it is completely dry, put your chamber back together.
- Your chamber is ready to use.

Do not

- Do not put in the dishwasher
- Do not use boiling water as it may damage the chamber
- Do not scrub the inside of the chamber



Red flags

SEVERE

If your child's symptoms are not improving, or Salbutamol doses are not lasting 4 hours.
Their too breathless to talk/eat or drink
Have blue lips
Have symptoms of cough/wheeze or breathlessness which is getting worse
Are confused and drowsy

Ring **999** for immediate help.
Give 10 puffs of blue (salbutamol) reliever inhaler every 10 minutes until the ambulance arrives.
Keep your child in upright position and reassure them.

MODERATE

If your child is:
Wheezing and breathless and their blue (salbutamol) reliever inhaler 2-5 puffs is not lasting 4 hours.
Have a cough or wheeze/tight chest during the day and night
Too breathless to run/play/do normal activities


Contact GP /healthcare professional for advice and management.
Increase blue (salbutamol) reliever inhaler 6-8 puffs every 4 hours

MILD

If your child starts to cough, wheeze or has a tight chest but can continue day to day activities.

Give 2-5 puffs blue (salbutamol) reliever inhaler every 4 hours until symptoms improve
If symptoms are no worse but have not improved after 48-72 hours, please seek a medical review from your surgery, NHS 111, or the urgent care center if out of hours.





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www.mkhcharity.org.uk

