BMJ Best Practice

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Asthma in children: what treatments work?

Asthma happens when the walls of the tiny air passages in the lungs get swollen or inflamed. This makes it harder for air to get in and out, so that sometimes it is harder to breathe.

Asthma is common in children. And, although asthma can be dangerous, there are good treatments to help prevent and treat symptoms.

You can use our information to talk to your doctor about which treatments are right for your child. To read about the symptoms of asthma and how it is diagnosed, see the leaflet *Asthma in children: what is it?*

Treatments for asthma

Medicines for asthma fall into two general categories: medicines that treat asthma symptoms when they happen, and medicines that help prevent asthma symptoms.

You may hear these called **relievers** and **preventers**.

Most asthma treatments are given using inhalers. There are different types of inhaler, and they deliver the medicine in different ways. To learn more, see the leaflet *Asthma in children: types of inhalers*.

Your doctor or a nurse will make sure you and your child learn how to use your child's inhaler properly. Your doctor will probably also give you a written plan to help you manage your child's asthma symptoms and their treatment.

Reliever inhalers

Most children with asthma will have a reliever inhaler. You may hear these called **quick-relief inhalers**. These help to get rid of asthma symptoms when they happen.

Your child may need two, three, or four puffs from their inhaler to relieve their symptoms. If your child often gets asthma symptoms when exercising, they might also use a quick-relief inhaler beforehand.

Asthma in children: what treatments work?

- Your child should carry their quick-relief inhaler with them all the time.
- Ask your child's school what arrangements they make for children with asthma. Some schools prefer children to leave their medication with a teacher or the school nurse, especially if a child is younger. This means they'll have to ask for it when they need it.
- It's important that your child is able to get to their inhaler quickly. It should be kept nearby if your child is doing PE or playing at break time. It's probably best for older children to carry their inhaler themselves.

Reliever inhalers work quickly to help your child breathe normally again. If your child has mild asthma, a reliever inhaler may be the only treatment they need.

Reliever inhalers don't usually cause any serious side effects. But they can make your child's heart beat faster, and some children get trembling, especially in their hands. Your child may have trouble sleeping if they use their inhaler just before bedtime.

If your child starts to need their reliever inhaler more often, they should see their doctor. They may need additional treatment to control their asthma.

And if their reliever inhaler doesn't improve their symptoms, or their symptoms get worse, seek emergency treatment.

Preventer inhalers

Along with a quick-relief inhaler to treat asthma symptoms, your doctor may also suggest your child use one or more treatments to prevent asthma symptoms.

The main preventer treatment is a steroid inhaler. These steroids aren't the same as the anabolic steroids used by some athletes and bodybuilders. Their full name is 'corticosteroids' and they are similar to chemicals that your child's body makes naturally to fight inflammation.

There are no definite rules about when a child should be prescribed a preventer inhaler. But doctors often recommend them for children who

- need their quick-relief inhaler more than two or three times a week
- have trouble sleeping because of their asthma, or
- get severe asthma attacks.

Steroid inhalers help to:

- prevent asthma attacks
- reduce wheezing
- help children's lungs work better, and
- reduce the number of times children need their quick-relief inhalers.

But steroid inhalers can't stop an asthma attack once it has started. They work too slowly. Your child should use their quick-relief inhaler once they get asthma symptoms.

Steroid inhalers aim to prevent asthma symptoms in the long term. They should be used regularly, once or twice a day - your child's doctor will tell you how often.

Side effects of steroid inhalers

The most common side effect of a steroid inhaler is a sore mouth. It's caused by an infection called oral thrush, which is caused by a fungus. But these infections aren't serious and are easy to treat. They may be less likely if your child rinses out their mouth after using their inhaler.

Another common problem is sounding a bit hoarse after using a steroid inhaler.

Some research has found that steroids can slow down how quickly children grow when they first start taking them. But it's not clear whether this will affect their final adult height. It's also worth noting that having asthma that's not treated properly can also affect your child's growth.

In some very rare cases, steroids have stopped children's adrenal glands working properly. Your adrenal glands make hormones that help your heart and kidneys work properly. They also affect how your body uses energy.

But problems with adrenal glands have only happened to children who've been taking a higher-than-normal dose of inhaled steroids.

What if my child is still getting asthma symptoms?

If your child has a steroid inhaler but still gets asthma symptoms, they should see their doctor.

The doctor will want to check that they are using their inhaler properly. They may also suggest avoiding things that trigger asthma symptoms, such as animal fur or tobacco smoke.

If these things don't help, your child may need to take a higher dose of their steroid inhaler or an extra medicine for a while, such as tablets that help prevent asthma symptoms.

This is called 'stepping up'. It doesn't mean your child will always need to take more medicine. Once your child's asthma is under control, their doctor may 'step down' their treatment.

Doctors always try to give the lowest dose of medicine to treat and prevent asthma symptoms. The lower the dose, the less likely your child is to get side effects.

To read more about signs that your child may need extra asthma treatment, see the leaflet *How can I tell when my child's asthma is getting out of control?*

What will happen to my child?

Asthma treatments work well to prevent and relieve symptoms, allowing most children with asthma to live healthy, active lives.

And asthma doesn't usually stop children from taking part in everyday activities, such as playing outdoors and doing sport. In fact, studies suggest that regular exercise can improve a child's asthma control, as well as their overall fitness and quality of life.

But asthma attacks do happen and can be dangerous if they're not properly treated. A bad asthma attack may mean your child needs urgent treatment in hospital.

If you're ever worried about your child's asthma, for any reason, it's always best to be on the safe side and call an ambulance.

Some children with asthma grow out of the condition. But not all do. Children with severe asthma are more likely to still have asthma when they grow up.

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