

Asthma Health Education

Q1: What is asthma?

Asthma is a chronic inflammatory disease of the respiratory tract and an allergic reaction. When the respiratory tract comes into contact with dust, pollen and other allergens, or the allergic reaction is caused by stimulation by coal ash, smoke, etc. The bronchial muscles will contract abnormally, its mucosa and submucosa will have edema. This causes the channel aperture of the bronchial tube is greatly reduced. This narrow air pathway is often blocked by sticky secretions secreted by the trachea. At this time, the patient will experience cough, difficulty breathing, shortness of breath and wheezing.

Common causes of asthma attacks

1. Allergens: pollen, mold, dust mites, animal chips, etc.
2. Polluted air, exhaust gas from motor vehicle, smoking and second-hand smoke, perfumes, etc.
3. Dramatic climate changes (temperature, humidity, etc.), cold weather.
4. Sore throat, cold, viral infection, bronchitis or sinusitis, etc.
5. Taking medications that cause allergies, such as aspirin.
6. Contact with chemical, such as formalin.
7. Intense exercise.
8. Excessive emotions, nervous, crying or laughing will change the way of breathing and cause asthma.
9. Preservatives, artificial flavors or MSG contained in food or beverages, cold foods (which can stimulate the contraction of the respiratory tract)

Q2: The classification of asthma

Asthma is a multi-gene disease, generally divided into external (allergic), endogenous (non-allergic), mixed three categories.

- Extrinsic or allergic asthma (about 10%):
It is mainly caused by external allergens, such as dust mites, animal feathers or their dander, mold, pollen, some insects or pesticides. Most of these patients have a family history of allergic diseases, and the age of onset is very small, and often combined with allergic dermatitis, allergic rhinitis, allergic conjunctivitis, urticaria.
- Internally caused asthma (about 10%):
There is no certain cause, but certain conditions can promote it, such as colds, upper respiratory tract infections, ice drinks, stress, climate, even exercise, and drugs, which can also cause internal asthma. Most of these patients does not have family history of allergic diseases, and many of them are adults.
- Mixed type (about 80%):
Asthma attacks are linked to allergic and non-allergic factors, and these patients are the most common type.

Q3: What are the symptoms of asthma attacks?

- Cough
- Chest tightness, chest pain, shortness of breath
- Wheezing (whispering)
- Difficulty breathing, sunken sternum ribs

Q4: Control and prevention of asthma.

1. Improve the home environment, the dust in the home is completely removed, maintain good ventilation indoors.
2. Avoid inhaling second-hand smoke or entering areas of air pollution.
3. During colds or seasonal seasons when the weather changes greatly, you should pay more attention to personal hygiene and reduce access to public places.
4. When the temperature of the weather changes, keep warm and wear a mask.
5. Change and wash the bedding frequently, avoid using fluffy blankets and silk sheets, and choose synthetic (man-made fibers) or anti-mite bedding.
6. Do not keep pets such as cats and dogs. If you have already kept them, keep them away from the bedroom or outdoors.
7. Those who are allergic to pollen should avoid planting plants that are prone to allergies around their homes. During the season of pollen dispersion, it should be reduced to suburban time.
8. **Take the medicine according to the doctor's instructions, follow up regularly, and carry trachea dilatants with you to inhale the spray.**

Q5: Dietary precautions

1. Eat all kinds of food to reach a balanced nutrition.
2. Avoid foods that cause allergies, such as milk, seafood, eggs, peanuts, etc.
3. Try to avoid cold drinks and foods, eat more mild foods.

Q6: Can I exercise?

1. It is recommended to **discuss with a specialist in chest cavity, home doctor or allergic immunodeficiency** to see if the exercise currently under course is appropriate.
2. Precautions for activities and exercises, you should avoid vigorous exercise. Most asthmatic patients will aggravate their asthma symptoms during vigorous exercise, you can focus on **relaxing exercises**, such as swimming (warm swimming pool), jogging, walking, cycling, etc.
3. The study indicates that inhalation of bronchial dilatants 15-30 minutes before activity can reduce abnormal contraction of the bronchial tubes and **carry bronchial dilatants with you when exercising. Choose the right sports venue to avoid exercising outside in the dust or cold.**
4. Before exercise, do 15 to 30 minutes of warm-up exercise, rest for 5 minutes at intervals

during exercise, and then continue exercise and do 10 minutes of gentle exercise after exercise.

5. If you feel chest tightness, wheezing, dizziness, discomfort during exercise, **you should pause the activity first**. If there is an asthma attack, you should use trachea dilatant inhalation spray to ease symptoms.
6. When you **have a cold, other infections** or **the temperature is too low**, **stop exercising first**.

Q7: Other considerations?

1. When **asthma attack**, **use the trachea dilatant inhalation spray first**, if you **still have breathing difficulties**, **you should be sent to hospital seek as soon as possible**.
2. Keep indoor air clean and unobstructed. Avoid emotional excitement.

Q7: How to use a dilatant inhalation spray?

【 Open-mouthed inhalation 】

1. Pick up and shake it.
2. Open your mouth and take the sprayer about 4 centimeters from your mouth.
3. Take a breath.
4. Start inhaling slowly and press down the sprayer at the same time.
5. Inhale slowly for about 4-5 seconds until full.
6. Hold your breath for about 10 seconds before exhaling.
7. When necessary, after 1-2 minutes, the same step is sucked again.



【 Inhalation using an inhalation aid 】

1. Pick up and shake it.
2. Take a breath.
3. Open your mouth and gently put the spray in your mouth.
4. Start inhaling slowly while pressing down the sprayer.
5. Inhale slowly for about 4-5 seconds until full.
6. Hold your breath for about 10 seconds before exhaling.
7. When necessary, after 1-2 minutes, the same step is sucked again.

