

## Bronchiolitis is coming! What should we know about it

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Every year, at the beginning of winter, parents are afraid that their children get bronchiolitis.

This is due to the fact that they know that: this condition is easily transmitted, children can go into hospital for this reason and it can have severe effects as repetitive bronchitis. Is this all true?

### What is bronchiolitis?

Bronchiolitis is an infectious illness caused by a VIRUS that affects small respiratory tracts, called bronchioles, which are in lungs. There, a wall becomes inflamed and this causes obstruction for air intake and outflow. Hence, respiration gets difficult for children.

Respiratory syncytial virus (shortened as RSV) is the main cause of bronchiolitis (80%), specially in cases that are an epidemic in winter months between November and march and which affect children under two. Isolated cases can also take place all over the year. Other respiratory virus can cause it, as influenza, parainfluenza or adenovirus.

RSV gets transmitted because of mucus or saliva of an infected person and gets easily propagated within a family, kindergartens or primary education schools or hospital wards. For this reason, it is very important to avoid becoming infected, such as: not taking your child to kindergarten, avoiding close contacts with brother or elder children with cold symptoms in epidemic seasons and, above all, making sure that people who take care of your child wash their hands well and frequently.

Adults and elder children can become infected by VRS, but they are just affected by cold symptoms. Unweaned babies and children under 2 years old are likely to develop bronchiolitis. This is motivated by the fact that their respiratory tracts are smaller and get obstructed more easily.

### Which are the symptoms of a bronchiolitis?

Nearly all children have suffered from a VRS infection in their three initial years. For most of them, it is a high respiratory tract infection, with cold symptoms, which is not important.

Those who suffer bronchiolitis start with cold symptoms of mucus nose, mild cough and, sometimes, fever. After one or two days, cough gets worse and the baby begins

to breathe anxiously. Also, they can have respiratory problems (breathlessness) and chest noises (whistles can be heard).

In this moment, it is important that families know to acknowledge some signs which indicate respiratory difficulties. Hence, your child needs urgent medical attention and, sometimes, they must go into hospital (Chart 1).

### Chart 1. Alert signs of respiratory difficulty

The following signs and symptoms of respiratory difficulty in babies are a warning about the worsened situation of bronchiolitis. Hence, medical attention is immediately needed.

- Nostrils "get wide" when we breathe and muscles under ribs contort in an effort to increase air flow for lungs.
- When air is exhaled, there are thoracic noises as whistles.
- Unweaned babies can have problems to be fed due to the effort made to breathe.
- There are dehydration signs: dry mouth, drinking less liquid than normally, crying without tears or urinating less often than normally.
- You could notice a bluish colour in lips and finger tips. This is an indication that respiratory tracts are so obstructed that not enough oxygen is flowing in the blood.

### Is it severe?

Most children with bronchiolitis do not need hospital attention and treatment can be done at home.

However, there is a children group which has more risk to suffer from severe bronchiolitis and need hospital attention: these are children under 3 months, premature babies and those affected by severe congenital cardiopathy, chronic lung illness (fibrosis, bronco-lung dysplasia) or immunodeficiency.

The natural process of bronchiolitis usually lasts between 7 and 10 days, but it is between the second and third day when the situation can get worse. This is the moment

of special attention. Then, babies improve gradually although some mild symptoms as cough can last 2-4 weeks.

### **Is it related to asthma?**

Some small babies who have suffered from bronchiolitis can have similar symptoms to asthma, with whistles and respiratory difficulties related to colds or respiratory typical infections of this age in a recurrent way for 2 or 3 winters coming and then disappear. This does not mean that they suffer from asthma. Just some of them, only those genetically predisposed, will suffer from asthma after they are 5 years old.

### **How is it treated?**

It is important to know that there is not specific treatment to avoid bronchiolitis even though, luckily, most cases are not severe and children improve with general care that can and must be done at home.

Antibiotics are not useful since this is a viral infection, they are only effective if a bacterial severe infection occurs, as otitis or pneumonia. And some other medicine used to treat bronchiolitis, as bronchodilators (used to open bronchioles) or corticosteroids (used to reduce their inflammation), just cause a limited improvement in some situations.

Thus, the most important thing is to know alert signs of respiratory difficulty, which would make medical attention necessary and alleviate symptoms caused by infections with some useful health care, as:

- To keep a proper hydration, living them liquids (water or milk) in small amounts and frequently.
- Make nasal washes with serum or hypertonic saline, with or without nasal aspiration to keep nose clear and put the baby in decubito supino position (mouth up), this will help them to breathe better.
- If there is fever, treat it as normally and with usual medicines.
- It is important to avoid tobacco smoke and smoked environments. Not to smoke at home.
- Due to respiratory difficulty, it is possible that a child eats slower and has problems with solid food; give them smaller portions and frequent portions of soft food. Pay attention to regular drink of liquids to avoid dehydration.
- If there is a severe respiratory difficulty or dehydration signs, the child must go into hospital.
- It is important that parents have the right information.

### **Other relevant documents online:**

*For professionals:*

- Protocolo de Bronquiolitis. Diagnóstico y tratamiento en Atención Primaria. Grupo de Vías Respiratorias de AEPap. Marzo 2010. Available at: [www.aepap.org/gvr/protocolos.htm](http://www.aepap.org/gvr/protocolos.htm)
- Guía de Práctica Clínica sobre Bronquiolitis Aguda. Plan de Calidad para el Sistema Nacional de Salud del Ministerio de Sanidad y Política Social. Edición 2010
- Conferencia de Consenso "Manejo diagnóstico y terapéutico de la bronquiolitis aguda" An Pediatr (Barc). 2010. Available at Portal GuíaSalud – Biblioteca [www.guiasalud.es](http://www.guiasalud.es)

*For parents:*

- Health Issues: Bronchiolitis. En: Healthy Children [www.healthychildren.org](http://www.healthychildren.org) ; website for parents from "Academia Americana de Pediatría" (in English)
- Bronquiolitis. In "Familia y Salud" [www.aepap.org/familia/bronquiolitis.htm](http://www.aepap.org/familia/bronquiolitis.htm) ; website for parents from "Asociación Española de Pediatría de Atención Primaria (AEPap)"
- Información para padres: Bronquiolitis. Website from "Sociedad Española de Neumología Pediátrica (SENP)" [www.neumoped.org/senp\\_bronquiolitis.htm](http://www.neumoped.org/senp_bronquiolitis.htm)