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# Why must not cough be treated?

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## Cough and medicine against cough.

It is very common to blow your nose when it is full of mucus: we inspire, close our nose and open it while we breathe out to sway mucus from the inside. The nose gets clean and we breathe better. Nobody in his right mind thinks of having the nose full of mucus and keeps their hands in their pockets. What happens when mucus are anywhere in the respiratory system located between the smallest bronchus and the nose? The answer is easy: cough. Cough means filling your lungs with air, close the larynx, specifically the glottis, open it all of a sudden so that air is released at a speed faster than 150 km per hour and thus clear mucus, the most frequent thing to happen, or foreign bodies, cleaning the airways and easing the airflow.

All in all, it is defence mechanism of the respiratory tract that gets automatically activated although we can also provoke it on purpose. But, when there is cough, it seems that we need to clear it. Why? Trying to clear your cough is not like having mucus in your nose and keeping your hands in your pockets? Must the symptoms or the cause be treated? Are medicines against cough efficient? Are these medicines unsafe?

## Why must not cough be treated?

If we accept that cough is a reflex that is part of a defence mechanism of the respiratory tract, it is contradictory to fight against an ally; but we do and more frequently than needed. When cough occurs in order to sway your mucus, it is said to be productive and when there are no mucus, it is said to be irritant.

Irritant coughs are the least common in children and, in most situations, they are due to allergic problems (asthma and allergic rhinitis) and irritant environments (above all, tobacco smoke and pollution) and they are not treated with medicine against cough.

Most of the times when medicines against cough are used, this is done as part as cold treatments, this is, productive coughs even though this may seem contradictory. The reason that some people argue in order to justify

this treatment is that the child can feel better but this is not proved. In conclusion, the cause of cough must be treated when it exists but cough must not be treated itself.

#### Does productive cough get better on its own?

Yes. Productive coughs are due to colds and mucus make cough appear. This is more intense and frequent in the first days and then its frequency and intensity diminish, with or without cough suppressants. Hence, what we think that it is an effect of medicine is just the passage of time.

#### Remedies against cough

Many homemade and industrial remedies haven been and will be used against cough although their alleged usefulness has not be enough proved. Some of these treatments are herbs, plants and other substances that with their "natural" labels are given to children of any age as if they were not a risk at all. It must be said that some of these preparations can be polluted with biological products, which are not destroyed in babies under a year old and can be a risk for health. Honey has been compared to medicine against cough with good results but, not for this reason, it must be given to children under a year old. Honey, as other sweet products, releases endorphins and this makes you feel better.

Homeopathy does not contain any active substances and is not effective.

#### Medicine against cough

They have been used for centuries and the ones which have been successful have been those derived from opium because of their narcotic properties. It is surprising to know that, until 1914, heroin was one of the medicines that was sold for children cough treatment. As heroin usage was rejected, codeine became cough's baseline treatment (and its pain) for children and it is still in use. Codeine transforms partially in morphine and, in some children, this process is so intense that it can provoke a respiratory arrest. Agencies in charge of the use and control of medicines in United States and Europe have recently advised of these risk and the British medicine agency has forbidden syrups against cough that contain codeine for people under 18 years old.

The dependency that codeine can cause as an opium derived substance created the need of new antitussives and hence dextrometorphan appears, one of the most widely used medicines against, and that is not free from risks, above all in children under 6 years old. The abusive consumption of this preparation ignoring the doses used as cough soothing has made it a stimulating drug among young people. The effectiveness of dextrometorphan as cough soothing and, despite parents' perception of a better sleep and rest, has not proved to be better than honey or placebo.

Other syrups have been scarcely investigated and some have been used as suppositories that have been removed from the market because of their risks.

Codeine needs a medical prescription but dextrometorphan (more than 40 medicines contain this substance) and other similar medicines can be freely purchased in chemists. The usage of these medicines is the frequent cause of poisoning as cough does not disappear and it is thought that its side effects are not important, above all, when they can be purchased without a prescription.

The countries that have forbidden the sale of these medicines against cough and colds in chemists without a prescription have significantly diminished medicine poisoning, emergency visits and complications, mild and severe.

#### What can we do when a child coughs?

A good hydration with juices and other liquids is essential. Milk and dairy products can be used because there is no reason to say that milk causes more mucus to appear.

We must not allow anyone to smoke anywhere in the house and contact with tobacco smoke must be avoided. It is good to build up mists with hot water avoiding that the child gets burned. The mist produced by the shower can be used. It could also be useful to clean your nose with water with salt (10 grams of salt per litre of water) and inhale mucus if they cannot be swayed or with cough or sneezes. Nasal spray decongestants must not be used.

It is very important to pay attention to other symptoms which can occur with cough as: breathing problems (quick breathing, with noises in your chest, with ribs and breastbone suck and a sensation of air hunger), fever, intake rejection and, generally, a sensation that the child does not feel well.

Syrups against cough must not be used if they are not prescribed for children under 6 years old nor honey in children under a year.

It is useful to remember the recommendations of the cough decalogue from "Asociación Española de Pediatría de Atención Primaria" (<u>http://www.aepap.org/sites/default/files/decalogo\_tos.pdf</u> [6]).

Cough is an ally for your child healing. Do not use treatments that are not advised by your paediatrician.