

Milk, mucus and cough

Some people complain that milk makes their nose run, coats their throat and triggers coughing. Why is this so?

Everyone has mucus

Mucus is produced by cells within the nose, sinuses and lung. It consists of water, salt and various proteins that help trap germs and particles of dirt. Antibacterial enzymes and proteins called antibodies in mucus also help to kill germs and protect from infection. Mucus is moved towards the back of the throat by microscopic hair cells called "cilia", where it is then swallowed.

Mucus can irritate

Too much mucus can make the nose run or drip down the back of the throat, leading to post-nasal drip. Typically caused by infections or allergy, excessive mucus can trigger cough, sore throats and a husky voice.

Thick, dry mucus can also irritate the throat and be hard to clear. Dry mucus is more common in older people and in dry inland climates. Air conditioning, winter heating, dehydration and some medications (such as some antihistamines, antidepressants and blood pressure medicines) can aggravate the condition.

Milk and mucus

Some people complain that when they drink milk or other dairy products, their throat feels coated and mucus is thicker and harder to swallow. Recent research has shown that these feelings are due to the texture of the fluid and occur with similar liquids of the same thickness, and are not due to increased production of mucus. Symptoms of cow's milk allergy are very different.

Milk does not cause middle ear problems

Middle ear infections (otitis media) are very common in early childhood. Infections are even more common when children also have allergic rhinitis (hay fever). Allergic inflammation causes swelling in the nose and around the opening of the eustachian tube (ear canal) interfering with drainage of the middle ear. Like water in a stagnant pond, infection is more likely.

Children with cow's milk allergy sometimes appear to suffer from more frequent infections. This is not because milk causes infection, but rather because children with food allergy are more likely to suffer from other allergic disorders such as allergic rhinitis.

Eliminating dairy product does not help asthma or allergic rhinitis

Asthma and allergic rhinitis (hay fever) are normally triggered by substances that we inhale, such as pollen, dust mite, mould spores or animal danders. Dairy products rarely trigger asthma or allergic rhinitis. When they do, nasal symptoms are usually accompanied by obvious symptoms of allergy, such as severe hives, throat or tongue swelling or a drop in blood pressure.

Recent studies have shown that milk has no effect on lung capacity, and does not trigger symptoms in patients with asthma any more than placebo. When patients complain of cough after having cold milk, it is usually due to breathing in cool air as they drink, and usually disappears if they warm the milk first.

Cutting out important foods can adversely affect nutrition

Milk and other dairy products are an important source of calcium and other minerals needed for strong teeth and growing bones. Cutting out milk unnecessarily can limit choices, reduce enjoyment of food and may adversely affect nutrition. If it does become necessary to eliminate milk and other dairy products from your diet for some reason, make sure you substitute other calcium containing foods and drinks, or take a calcium supplement. If you need further information, consult a dietitian. In most sufferers, dietary restriction is of little benefit in asthma or allergic rhinitis, and distracts efforts away from more productive areas such as allergen avoidance.

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References

1. Pinnock CB, Arney WK. The milk-mucus belief: sensory analysis comparing cow's milk and a soy placebo. *Appetite* 1993 Feb;20(1):61-70
2. Arney WK, Pinnock CB. The milk mucus belief: sensations associated with the belief and characteristics of believers. *Appetite* 1993 Feb;20(1):53-60
3. Pinnock CB, Graham NM, Mylvaganam A, Douglas RM. Relationship between milk intake and mucus production in adult volunteers challenged with rhinovirus-2. *Am Rev Respir Dis* 1990 Feb;141(2):352-6
4. Juntti H, Tikkanen S, Kokkonen J, Alho OP, Niinimäki A. Cow's milk allergy is associated with recurrent otitis media during childhood. *Acta Otolaryngol* 1999;119(8):867-73
5. Bernaola G, Echechipia S, Urrutia I, Fernandez E, Audicana M, Fernandez de Corres L. Occupational asthma and rhinoconjunctivitis from inhalation of dried cow's milk caused by sensitization to alpha-lactalbumin. *Allergy* 1994 Mar;49(3):189-91
6. Woods RK, Weiner JM, Abramson M, Thien F, Walters EH. Do dairy products induce bronchoconstriction in adults with asthma? *J Allergy Clin Immunol* 1998 Jan;101 (1 Pt 1):45-50
7. Nguyen MT. Effect of cow milk on pulmonary function in atopic asthmatic patients. *Ann Allergy Asthma Immunol* 1997 Jul;79(1):62-64
8. Scarlett Salman, Lynn Christie, Wesley Burks, McCabe-Sellers. Dietary Intakes of Children With Food Allergies: Comparison of the Food Guide Pyramid and the Recommended Dietary Allowances 10th Ed. *J Allergy Clin Immunol* 2002; 109 (1: Part 2): Abstract 643.

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