

Ear Infections – Natural, Antibiotic-Free Strategies

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Over 90% of all children experience at least one ear infection, and most will suffer many more.¹ Chronic or not, an ear infection (or more technically, otitis media) is downright painful. No one wants to see a child suffering, but the current protocol prescribed today of antibiotics and surgical ear tubes is just not fixing the problem. In fact, research shows that children placed on antibiotics for ear infections are *more* likely to suffer recurrence. Not only are there ways to naturally prevent them from occurring, but there are many natural choices for acute action as well.

Core of the Problem

When it comes to ear infections and pain, abnormal Eustachian tube function is at the root of the problem. These tubes drain fluid and bacteria from the middle ear out the throat. When these tubes become swollen and inflamed, fluid collects and they become blocked. This then creates an ideal environment for bacteria and viruses to flourish. The pressure of the fluid against the eardrum also causes intense pain and possible rupture of the eardrum.² In infants and children, the Eustachian tube is smaller in diameter and more horizontal, making them more susceptible to fluid buildup. As we grow, the tubes begin to curve downward, allowing fluids to drain more easily.³ These infections often accompany colds, upper respiratory infections, sinusitis, and throat infections.^{1,3}

When a child is diagnosed with *otitis media* (OM), it simply means inflammation of the middle ear. *Acute otitis media* is when there is fluid in the middle ear accompanied by signs or symptoms of ear infection (fever, pain, bright red ear with fluid, and/or drainage from the ear). This acute variety usually trails behind an upper respiratory infection or allergy. *Chronic otitis media with effusion* involves fluid in the middle ear without signs or symptoms of ear infection.⁴ These ear infections are not to be taken lightly; when chronic, they make kids more susceptible to developmental delays, speech problems, and behavioral issues.⁵ Therefore, getting to the core of the problem, the cause of the fluid build-up, is the best approach, along with supporting a healthy immune system to prevent the infections from taking hold.

Why Are Ear Infections So Common?

What makes one child more susceptible than another? Many lifestyle habits contribute to the irritation and inflammation that goes along with blocked Eustachian tubes.

Allergies have been found to be a major cause of OM. Most studies show that 85% to 93% of children suffering from OM have allergies: 16% to environmental only, 14% to food only, and 70% to both. When the body's immune system responds to an allergic substance, it causes inflammatory swelling of the mucous membrane lining the Eustachian tube as well as the nose, ultimately leading to fluid build-up in the middle ear and encouraging the development of an infection.³ When a group of children diagnosed with food allergies followed an elimination diet, 86% of them found significant improvement.⁶ The most offending foods tend to be pasteurized cow's milk, wheat, egg white, peanut, soy, corn, tomato, orange, and apple.³

Poor food choices, namely sugar, damaged fats, and processed foods, take a toll on the immune system and digestive tract. Although not directly linked with ear infections, consuming excessive sugar is known to impair immune function.^{7,8} Since the immune system is intimately involved with allergic reactions, many holistic professionals agree children, as well as adults, should cut back on sugar and other processed foods. A poor diet full of irritating foods also affects **internal bacteria**. In the digestive tract, there are good bacteria protecting the body that function as part of the immune system. Dysbiosis, or excessive growth of bad bacteria in the absence of good bacteria, results in gut inflammation and leaky gut syndrome.⁶ This leads to unwanted food particles entering the bloodstream that likely

becoming allergens, causing even more trouble with inflammation and immune system reactions.⁸ Finally, a poor diet can cause **nutrient deficiencies**. Research shows children with a high susceptibility to ear infections are often deficient in zinc, iron, and vitamin A.^{9,10,11}

Breastfeeding seems to have a protective effect against ear infections.¹² Children of **smokers** are more likely to have recurrent ear infections.¹³ Sucking on **pacifiers** also increases a child's risk of OM as much as 40%,^{14,15,16} as does extensive time in daycare.¹ Another lesser known risk factor is **heartburn**. Research has uncovered a connection between children's OM and gastro-esophageal reflux disease (GERD), which occurs when gastric juice leaks into the throat. Although not extensively researched, this connection should be taken into consideration.

Antibiotics – Not the Best Answer, Yet the Most Common

The standard medical approach to OM is antibiotics. There are three main points that give cause to reconsider. First, up to 90% of all ear infections will naturally clear up without antibiotics.^{17,18,19} Secondly, according to a study published in the *New England Journal of Medicine*, acute ear infections are most commonly caused by viruses, not bacteria, meaning antibiotics are useless.²⁰ Finally, and most importantly, researchers have found that the sooner children are given antibiotics, the longer the infections last and the more recurrences they experience.²¹ Despite all these findings, it is estimated that at least one-fourth of all the antibiotic prescriptions in the U.S. are for OM.¹⁸ The latest recommendation from the American Academy of Pediatrics is to sit it out for 48 hours before prescribing an antibiotic; however, each case is different. You should discuss any possible choices with your doctor. There are also side effects that give reason to avoid unnecessary antibiotics. They tear down the immune system, the very system needed to combat these pesky infections. The reason so many ear infections reappear after antibiotic treatment is the elimination of good bacteria that are a part of the body's natural defense system. When gone, it allows the bad bacteria to flourish.²³ Excess use of these drugs also contribute to "supergerms," which are even tougher to eliminate and become unaffected by available antibiotics.

Natural Prevention of Ear Infections

In addition to avoiding the risk factors discussed above, there are a number of supplement options to help prevent ear infections.

Multiple Vitamin and Mineral and Cod Liver Oil: Research published in the *Annals of Otolaryngology, Rhinology and Laryngology* found supplementation with a multivitamin-mineral supplement together with one tsp cod liver oil can reduce rates of ear infections in children.²² They chose these two supplements after evaluating the children's blood nutrient concentrations. They found lower levels of vitamin A, selenium, and the fish-derived fatty acid eicosapentaenoic acid (EPA) in those with ear infections. All these nutrients are vital for a properly-functioning immune system and controlling inflammation.

Probiotics: A study involving 130 children aged 6 months to 6 years with recurrent OM found that replenishing the gut's good bacteria reduced recurrences and complications of ear infections. The authors concluded that therapies that improve helpful bacteria may not only keep OM at bay, but also prevent harmful bacteria from becoming resistant to antibiotics by reducing the need for the drugs. If antibiotics are necessary, it is imperative that the child replace the good bacteria that are lost.^{23,18} Supplements provide a concentrated dose of these bacteria, but food can also help the good guys flourish. A Finnish study found that children in day care who consumed milk enriched with *Lactobacillus rhamnosus* GG had fewer days of absence because of illness, and fewer respiratory tract infections with complications (e.g., sinus infections, ear infections, or bronchitis) than did children who consumed regular milk.²⁴

Xylitol: Bacteria must latch on to cells in the host in order to cause infection. If they cannot hang on, they are simply washed away and eliminated. Xylitol, a natural sugar, interferes with the growth and

attachment of some bacteria that may cause ear infections.^{25,26,27} In several studies, children who regularly chewed gum sweetened with xylitol had a reduced risk, up to 40%, of ear infection.^{28, 29,30} The average age of the children was five and most had recurrent ear infections. Dr. Lon Jones pioneered the use of intranasal xylitol in his medical practice. His experience has been a 93% reduction in ear and sinus infections with regular use of a nasal spray containing xylitol solution.³¹ Dr. Jones has also found comparable reductions in allergies and asthma. *Note:* xylitol is most helpful in prevention and may not provide benefit during an active infection.^{32,33} Although gum is not appropriate for infants to two years, the nasal spray and consuming xylitol in foods may be another alternative.

Thymus Gland Extract: The thymus gland is a major member of the immune system team that secretes hormones that ensure proper development and function of this system.³⁴ A strong immune system can reduce allergic reactions and help the body fight off infections. Studies using calf thymus extract given to children have demonstrated significant results in a variety of clinical conditions. The extract has been found to reduce food allergies, improve resistance to chronic respiratory infections, and support healthy immune function.³

Acute Action for Ear Infections

Although a pain medicine may be appropriate to get through the night as a bandaid (e.g. Tylenol), it will surely not get to the bottom of the issue. Below are some alternatives to not only reduce pain, but also build immune strength to help the body deal with the infection more efficiently and quickly.

Ear Drops: Once the doctor has given thumbs up to “watching and waiting” without antibiotics and determined the eardrum is not perforated, pain relief with ear drops is the first order of business. A study in the *Archives of Pediatrics and Adolescent Medicine* compared a prescription anesthetic ear drops to an herbal product containing mullein, calendula (marigold), St. John’s wort, and garlic in an olive oil base. In this study of just over 100 children, the herbal drops seemed to work as well as the prescription drops.³⁵ Garlic is a natural antimicrobial, and mullein is an herb that soothes the irritated membrane and reduces swelling. There are a number of pre-made solutions available. *Note:* ear drops should not be used if the eardrum is perforated.

Vitamin C: Supplementation with C has been shown to stimulate immune function,^{36,37} decrease the severity and duration of an infection,³⁸ and reduce inflammation.^{41,49} This is why many doctors recommend it for those with ear infections. A specific recommendation is 50 mg times the child’s age in years every two hours during an acute infection.³ Bioflavonoids, found abundantly in berries, are nutrients that are naturally found with vitamin C and can aid in its effects on the immune system.³

Zinc: This mineral also supports immune function and helps cool the flames of inflammation.^{39,40, 41} Zinc is especially powerful against viral infections and for supporting thymus gland function.^{42,43} Children are commonly deficient as well.⁴⁴ Dr. Pizzorno and Dr. Murray, authors of *Encyclopedia of Natural Medicine*, recommend 2.5 mg times the child’s age in years daily, up to 30 mg.³

Vitamin A: This is another nutrient that enhances immunity, reduces inflammation,⁴⁹ and has particularly strong anti-viral activity.^{45, 46} Many studies have confirmed this nutrient’s ability to reduce the severity of infectious illnesses.^{47,48} Dr. Pizzorno and Dr. Murray suggest 50,000 IU/day for up to 2 days in children under 6 years of age, and 4 days in children over 6 years of age.³ Cod liver oil is an excellent source of this nutrient and should already be part of a child’s prevention regimen.

Echinacea: This herb is well-known for its effects on infections, like colds, but is also used regularly by holistic physicians for children with recurrent ear infections.^{49,50} It strengthens immunity and also has anti-inflammatory properties.⁵¹ Start using echinacea at the first signs of an ear infection and continue until a few days after symptoms are gone. A general recommendation is to use half the adult dose for children under the age of 6 and the full adult dose is appropriate for children over the age of 6.³ There are also products specifically formulated for children.

Homeopathics: Research confirms this healing modality is a practical option against ear infections. One study with children suffering from OM showed that homeopathic remedies were at least as effective and safe as standard drug therapies and also resulted in decreased recurrence, less pain, and shorter infection duration.⁵² There are specific homeopathic formulations for ear infections; remedies can be matched to a child's symptoms, or consultation with a knowledgeable practitioner is another good option.

Every parent should have all the information before making choices about their child's health care. Much of the medical community overlooks the fact that there are underlying causes to these issues that must be addressed for true healing to occur. Fortunately, you now have the confidence to tackle your child's ear infections naturally.

Note: Even though the common treatments of antibiotics and surgical procedures may not be the best approach to deal with otitis media, each child should be evaluated by a physician before starting any program.

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