

Ear Infections

Earache is the most common reason after well-baby and child care, for visits to the doctor. During the last decade evidence has accumulated raising suspicion about the effectiveness of current medical treatment of middle ear problems in children. Doctors have begun to reevaluate “accepted” treatments and have found many to be inadequate.

Acute and Chronic Middle Ear Conditions

Acute earaches come on abruptly, often with symptoms like pain and fever, and usually occurring in only one ear. Chronic refers to middle ear problems or fluid that are of long-standing duration. Chronic episodes sometimes occur without symptoms and commonly occur on both sides. Our discussion deals primarily with chronic middle ear fluid (except where noted).

Causes of Middle Ear Conditions

There is uncertainty about the cause of ear problems in children. There are often many factors that simultaneously act to make a child ill. Major factors that appear to contribute to development of ear infections and middle ear fluid include:

☞ Allergy

Allergy or sensitivity to food or airborne substances contribute to ear problems in some Children. In one study of 104 children with chronic middle ear effusion, 81 had evidence of food intolerance. When offending foods were eliminated from the diet for 16 weeks, improvement was significant in 86 percent of the children. Foods that most often cause problems include cow’s milk products, wheat, soy, corn, and peanuts. In certain individuals, other foods may be problematic.

☞ Infection

Some middle ear problems occur in the presence of bacteria and viruses. In acute middle ear infection, in which bacteria are present, treatment with appropriate antibiotics may be warranted. Overuse of antibiotics may lead to overgrowth of yeast in the middle ear, which may require treatment with antifungal medication.

☞ Mechanical Obstruction

Some doctors have suggested that changes in spinal, cranial, and jaw (TMJ) biomechanics may contribute to the development of middle ear problems in children. Alteration in biomechanics may occur due to trauma before or at birth,

from a fall or accident, or from other influences. Spinal manipulation, cranial manipulation and TMJ therapy may be effective in treating some acute cases of chronic middle ear effusion. While there are no placebo treatments, several reports suggest that treatment of biomechanical problems may benefit some children.

☞ Diet and Nutrition

Though there is no doubt that diet and nutrition influence immune function, the precise role of diet and nutrition insufficiency in middle ear disease is not entirely clear. Many health practitioners, however, have found success using nutritional intervention tailored to the child’s individual needs. For example, a recent study of U.S. children found that blood levels of vitamin E were the lowest among industrialized nations. Vitamin E is important in immune function and in regulating inflammation. Other nutrients such as zinc and N-acetylcysteine have been studied as well.

Some doctors find dietary changes to be helpful. Excess sugar consumption may contribute to sluggish immunity, and reduction of dietary sugar sometimes speeds recovery from middle ear problems. Elimination of refined foods and avoidance of foods containing oxidized fats such as French fries, pastries, candies, chips, and cookies often improve health. Increasing intake such as fruits and vegetables improves fiber intake and nutrient density. Removal of dairy products from the diet of some children has resulted in clearance of middle ear fluid.

☞ Psychological Stress

While stress has not been specifically linked to ear infection or middle ear effusion, stress clearly has an effect on immune function. In studies of children, those under stress and those with negative life events were more likely to become ill when exposed to bacteria or viruses and to have illnesses that were longer lasting and more severe.

☞ Environmental Factors

Children who live with a smoker have a three to four fold greater risk of developing middle ear problems. Cigarette smoke also causes depletion of vitamins C and E. Children whose mothers were exposed to low levels of heavy metal such as lead, mercury, cadmium or arsenic experienced more infection, including ear infections, than children without such exposure.

GROWING CONCERNS ABOUT COMMON TREATMENTS

Antibiotics

The role of antibiotics in treating ear problems in children is unclear. One study found that children with chronic earaches receiving amoxicillin experienced two to six times the rate of recurrence when compared to those taking a placebo. A recent review of 27 studies to determine the role of antibiotics in preventing acute earaches and treating chronic middle ear fluid suggested, "...only one in six children have improved outcome, and the improvement only lasts for about one month." In a review of antibiotic therapy for acute middle ear problems "...poor evidence supported the routine use of antibiotic therapy (in children 2 years and older)." There are instances when antibiotic therapy is indicated and helpful, especially when culture and sensitivity tests are done.

Excessive antibiotic use can disrupt the balance of beneficial intestinal bacteria. This may contribute to yeast overgrowth and harmful intestinal bacteria. Oral treatment with acidophilus or bifidus supplements is often helpful in such circumstances.

Decongestants, Antihistamines and Steroids

Studies of these drugs have failed to show conclusive benefit in treating children with middle ear fluid and are not recommended. Steroids are not recommended for children of any age with otitis media.

Tubes

Your doctor may recommend placement of tympanostomy tubes in the eardrums if middle ear fluid has persisted for more than 6 months. In many cases, middle ear fluid decreases and hearing improves. However, some studies show that long-term hearing gains are not significant in many children with tubes when compared to those in whom tubes were not used. In a study of over 6,000 cases of tube placement, only 41% had "appropriate" indications or reasons, for doing the procedure. This suggests one should proceed cautiously and seek a second opinion.

Adenoidectomy and Tonsillectomy

Removal of adenoids is not recommended for children under age three if there is no specific adenoid disease. For older children, the evidence supporting this surgery is not conclusive. Tonsillectomy is not recommended for middle ear problems.

Will it Get Better on Its Own?

Many doctors believe that middle ear problems may get better without treatment. The natural course of a chronic middle ear problem appears to be from one to six months. Up to 60% of all episodes of acute otitis media improve on their own. Some studies have supported waiting three to

four days and initiating antibiotic intervention if symptoms have not improved. Clearly, some middle ear problems need treatment. But over treatment with antibiotics and surgery may, in part, be what has contributed to high rates of recurring middle ear effusion in children.

Effusion and Hearing Loss

Doctors are unsure of the extent to which middle ear effusion contributes to hearing loss and delayed intellectual development, though it appears to be more significant in children under three with chronic fluid buildup. Because of this uncertainty, some doctors suggest that aggressive forms of treatment (such as surgery) should not be used on relatively healthy children with ear fluid within the first six months of their illness solely to prevent hearing loss. Hearing should be monitored and every effort should be made to discover the cause of recurring middle ear fluid.

TREAT THE WHOLE CHILD

While it is important to treat the middle ear directly, many doctors have taken a more rounded approach, having found success in addressing the many and varied factors that influence health and well-being. By attending to your child's diet, nutrition, lifestyle, environment, structural and emotional health, you stack the odds of full recovery more in your favor.

COMPLEMENTARY TREATMENTS AND NATURAL REMEDIES

Increasingly, parents are turning to natural remedies to address some of their family health care needs. There is a wealth of information and many helpful tools that empower and allow one to care for many common maladies at home.