

Keep an Eye on Ear, Throat Infections

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Health Focus Contributor

Your 10-month-old daughter has had a cold for three days and last night woke up screaming at 3 a.m. She was difficult to comfort and felt hot to the touch. Although your schedule does not really allow it, you know a trip to the pediatrician is needed tomorrow—to check out the possibility of an ear infection.

Aside from the common cold, ear infections are the most common illness among young children and the most frequent reason for prescribing antibiotics. More than 3 out of 4 children have at least one ear infection by the time they reach 3 years of age. In a child, an ear infection is likely to follow a cold because of congestion that forms in the eustachian tube that connects the middle ear to the back of the throat. As mucus gets trapped between the eustachian tube and the ear drum, it creates a growing pressure that may lead a younger child to tug at her ear—or merely cry out in pain. Bacteria or viruses that have entered the middle ear through the eustachian tube can also get trapped in their way.

Upon taking their child to the doctor, most parents expect a prescription of antibiotics that will presumably put an end to the sleepless nights. Unlike colds (which are viral and won't respond to antibiotics), ear infections may be caused by *pneumococcus* bacteria and can be treated with antibiotic drugs. With the growing number of antibiotic-resistant strains of disease-causing bacteria, however, doctors have begun to question that practice.

One study found a significant increase in the number of antibiotic-resistant bacteria in the nasal passages of children after only four days of treatment with antibiotics.

New guidelines issued in March of 2004 by the American Academy of Pediatrics recommend prudent use of antibiotics, and it's based on strong evidence. A recent Dutch study of 240 children diagnosed with ear infections found no significant differences between those treated with amoxicillin and those given no treatment but watched carefully in case symptoms worsened. Another more recent study published in *Pediatrics* [June, 2005] found that 66 percent of children treated with watchful waiting got better, compared to 77 percent of those treated immediately with amoxicillin.

The new guidelines call for greater reliance on pain medications such as acetaminophen (Tylenol)

or ibuprofen (Motrin, Advil), along with watchful waiting. At least 80 percent of ear infections will clear up on their own in a few days.

Some children, of course, need antibiotics, either because of age (younger than six months) or severity of disease. If not treated adequately with antibiotics, the eventual consequences for these children might be more serious illness such as mastoiditis or meningitis. Those children who have repeated ear infections and/or antibiotic-resistant infections may have to see a specialist for placement of tympanostomies (PE tubes).

Many of the same symptoms that awaken you and your child at night may indicate only a cold or sore throat. More than 90 percent of sore throats are viral in origin and cannot be treated with antibiotics. Strep throat, caused by group A *streptococcus* bacteria, is an exception, and failure to treat strep properly can put the patient at risk of serious complications such as rheumatic fever and valvular heart disease.

Symptoms of strep throat include difficulty swallowing, headache, general discomfort, fever, lower stomach pain, loss of appetite and nausea. A doctor may note red and white patches in the throat and red, enlarged tonsils. The only certain way to diagnose strep throat, however, is by testing a sample of fluids taken from the back of the throat with a cotton swab.

In the past, this sample was sent off to a lab for a throat culture, delaying the start of treatment for several days. Today, a rapid strep test can be performed in the doctor's office. If it's positive, antibiotics can be prescribed right way; if it's negative, results will be sent to a lab for a throat culture to make sure.

In the absence of a positive rapid test or throat culture, the Centers for Disease Control advises against the use of antibiotics.

With treatment, a child's temperature will return to normal and other symptoms will clear in two or three days. It's important, however, that the child continues to take the full course of antibiotics in order to completely eradicate the bacteria. Stopping treatment prematurely is a major reason for the development of resistant bacterial strains, and it could put the child at risk of rheumatic fever (which can permanently damage the heart), blood infections or kidney disease.

Since their introduction in the 1950s, antibiotics have saved untold lives and can help protect children from severe complications. In order to maintain the maximum effectiveness of these medications, parents and doctors need to make careful decisions regarding how to treat ear and throat infections.

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