



International Chiropractic Pediatric Association

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Ear Infections: Antibiotics and Tubes. *Stop the Insanity!*

Recently while having lunch we were seated next to a family of three with a newborn. As we chatted we learned what a good little baby she was and only 4 weeks old. She was certainly adorable. However then the father said that recently she had become more difficult because she had an ear infection, but her doctor gave her some antibiotics, "you know... the pink stuff" and he hoped she would be better.

It disturbed me that a child so young was being given antibiotics. I thought of how many children start this way and end up with ear tubes. I wondered to myself, didn't the pediatrician know that medical research has overwhelmingly shown that amoxicillin and other antibiotics were ineffective for the treatment of ear infection?¹⁻⁹ Had he read the recent study performed by the Rand Evidence-based Practice Center (EPC) which concluded that nearly two-thirds of children with ear infections (acute otitis media or AOM) recover from pain and fever within 24 hours of diagnosis without treatment with antibiotics. And, over 80% recover within 1-7 days.¹⁰ Did the pediatrician let the parents know about these reports and their results? Or was this a pediatrician that blamed the parents for their prescribing antibiotics even though they are ineffective?¹¹ Regardless of the case, it is very likely that neither the pediatrician nor the parents understood how chiropractic could help.

The middle ear consists of the tympanic membrane and 3 additional openings or windows. The round window and the oval window communicate with the inner ear and the final opening permits the eustachian tube to provide a drainage mechanism into the paranasal sinuses. The paranasal sinuses connect with the nasal cavity via the eustachian tube. The middle ear cavity and the sinuses constantly accumulate fluids and require a mechanism to clear this fluid. If the eustachian tube is even partially blocked, as occurs in conditions such as the common cold and sore throats, accumulations of fluid with inflammation and/or infection will result.

When the eustachian tube functions normally, there is a clearance of fluid, exchange of gases and equalization of pressure. This occurs by contraction of a muscle (tensor veli palatini [tvp]). This muscle is innervated with motor fibers by the mandibular branch of the trigeminal nerve. These fibers exit the skull and unite outside the cranium, forming portions of the superior cervical ganglion located between the C-1 and C-4 nerve roots.

The eustachian tube in infants is nearly horizontal, and slowly acquires an angle of 45° by the time the child reaches the age of 7. As the child grows and the eustachian tube assumes a greater angle. However, during frequent upper respiratory infections in early childhood, the tissue swells and may block the eustachian tube opening. This makes ventilation of the middle ear impossible and provides a simple explanation for the occurrence of otitis media.

The key to the pathogenesis of ear infections appears to be the eustachian tube. Inappropriate function of the small muscle responsible for opening and closing the eustachian tube may be due to delayed nerve supply. Nerve fibers can be traced from that small muscle, to nerves emanating between the spinal levels of C-1 through C-4. Subluxation's affecting these levels may be responsible for abnormal function of the muscle resulting in otitis media. Restoring the spine to its proper alignment through chiropractic care should result in the return of normal nerve supply to the t.v.p. muscle and normal function of the eustachian tube.

In numerous studies, chiropractic care has been shown to be beneficial in relieving the cause of ear infections. In one study 93% of all episodes of otitis media treated with chiropractic care improved, 75% in 10 days or fewer. If you know someone with a child that suffers ear infections, won't you talk to them about chiropractic.

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Additional references available upon request.