

Osteopathy can be very effective in the treatment middle ear infections. Medically known as otitis media, it is a common disorder that results in numerous visits to doctors each year. Antimicrobials, antihistamines, and surgery have all been used to treat otitis media; however, literature makes little mention of the benefits that osteopathy and osteopathic treatment can make in this regard.

Middle ear infections are one of the most common reasons parents take their children to the doctor. They are more common in children because their Eustachian tubes are shorter, narrower and more horizontal than in adults, making movement of air and fluid difficult. Bacteria can become trapped when the tissue of the Eustachian tube becomes swollen from colds or allergies, causing infection that results in redness and swelling of the eardrum. Most children of school age have experienced at least one episode of acute otitis media (AOM or glue-ear) and approximately 30 percent will have had recurrent episodes of acute otitis media. Studies have shown that effusion persists for up to 90 days after the initial infection has cleared in up to 40 percent of those children presenting with acute infection. Furthermore, a strong correlation has been drawn between the existence of persistent effusion and recurrent acute infection.

Pathogenesis and Anatomy Predisposing to AOM

Eustachian tube dysfunction represents the primary problem leading to otitis media from the tympanic plexus of the glossopharyngeal nerve. Anatomists believe that this innervation, when not complete or compromised early in life, decreases the tensor veli palatini muscle's ability to open the tube in infancy. This muscular contraction is responsible for draining the fluid that is normally produced in the middle ear by opening the distal portion of the Eustachian tube, which also equalizes the pressure between the middle ear and the atmosphere.

Most doctors consider antibiotics to be the first line of defence for this condition. However, due to increased resistance to antimicrobials, and the fact that in many cases the infections are indistinguishable from those that are non-bacterial (and, therefore, not effectively treated by antibiotics), doctors are beginning to challenge this treatment option. There is also the risk of adverse side effects such as vomiting, diarrhoea or rash. Many doctors still prescribe amoxicillin for otitis media, believing that by destroyed bacteria the inflammation will decrease and therefore lead to increased Eustachian tube drainage. However, the marked resistance to this medication often results in the use of more expensive, broader-spectrum agents.

Typical Osteopathic treatment to relieve otitis media;

- ... Release strain patterns in the cranial base (SBS).
- ... Remove functional obstructions to Eustachian tube drainage: restore and balance expression of temporals (and TMJ), zygomas, maxillae; treat strain of intraoral muscles

tensor veli palatini, levator palatini as well as medial pterygoid using balanced ligamentous and membranous tension techniques.

... Improve lymphatic drainage; release pharyngeal fascia, diaphragm, thoracic inlet (clavicle, 1st and 2nd rib); fluid drives (e.g. CV4; EV3)

... Decongest nasals by balancing ethmoid (anterior falx) and vomer; spreading palatines; and eliminating "drag" on cervical fascia.

Educate parents in methods to prevent further infection

- Wash hands and toys frequently
- Avoid using dummies, especially at nursery
- Hold child in an upright, seated position whilst bottle feeding
- Don't expose child to second-hand smoke
- Avoid overusing antibiotics
- Identify and eliminate allergies

Recent studies have shown there is a benefit from osteopathic treatment as adjuvant to primary therapy in children with recurrent otitis media. A 2003 study by Mills et al on 57 children with recurrent AOM found that those who received osteopathic manipulative treatment in addition to routine paediatric care had fewer episodes of AOM, needed less surgical procedures, and enjoyed more symptom-free months. Baseline and final tympanograms showed an increase in frequency of more normal tympanograms in the osteopathically treated group. A 2001 pilot study conducted by Carreiro used osteopathic manipulative medicine on children with chronic otitis media with effusion. Of the 18 children involved in the study, 12 had complete resolution of the effusion by the fourth treatment and remained free of acute otitis media during the 18 months after initial clearing. A 2000 article by D. Pratt-Harrington DO describes the Galbreath technique, a simple osteopathic mandibular manipulation which opens and closes the Eustachian tube by a pumping action that allows the ear to drain accumulated fluid more effectively.

There is no single specific osteopathic treatment for acute otitis media; rather a total body screening examination needs to be performed, with application of osteopathic techniques to those anatomical areas most closely related to proper function of the middle ear and Eustachian tube.