

GLUE EAR

Glue Ear - definition

Medically known as *otitis media with effusion*, it is a congestion problem – the middle ear fills up with mucus and fluid causing temporary deafness and discomfort. On examination the eardrum, also known as tympanic membrane, may be ‘sucked in’. The eardrum may also rupture spontaneously as a result of the pressure.

Glue ear is different from acute otitis media, which is a short-term ear infection, often with a fever, and very painful. Acute otitis media may follow Glue Ear or vice versa.

Both involve inflammation of the middle ear, a build-up of fluid and are common in babies and young children. **Glue Ear affects seven out of ten young children!**

Young children are most vulnerable to glue ear because their Eustachian tubes (the passage between the middle ear and throat) are short and narrow, so can get blocked easily. Fluid secreted in the middle ear is trapped, rather than simply draining into the throat on swallowing.

Otitis Externa affects the outer ear and is often the result of poking the external ear canal with ‘Q’ tips. The ear is self-cleaning so it is best not to damage the body’s own protective devices.

There is also ongoing genetic research into the Evil gene on the jumbo mouse.

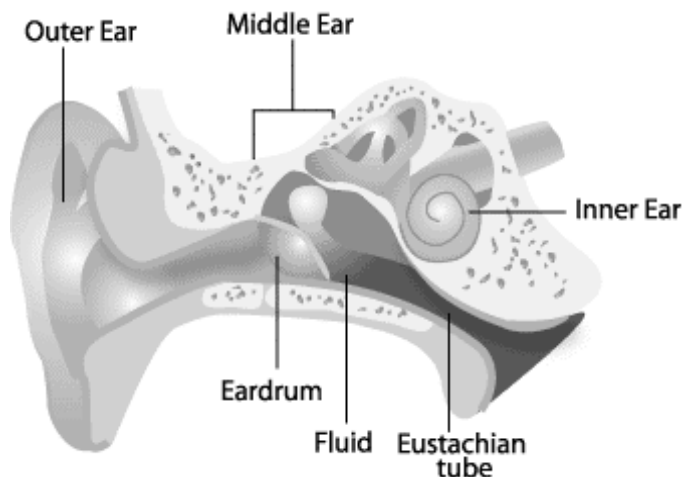
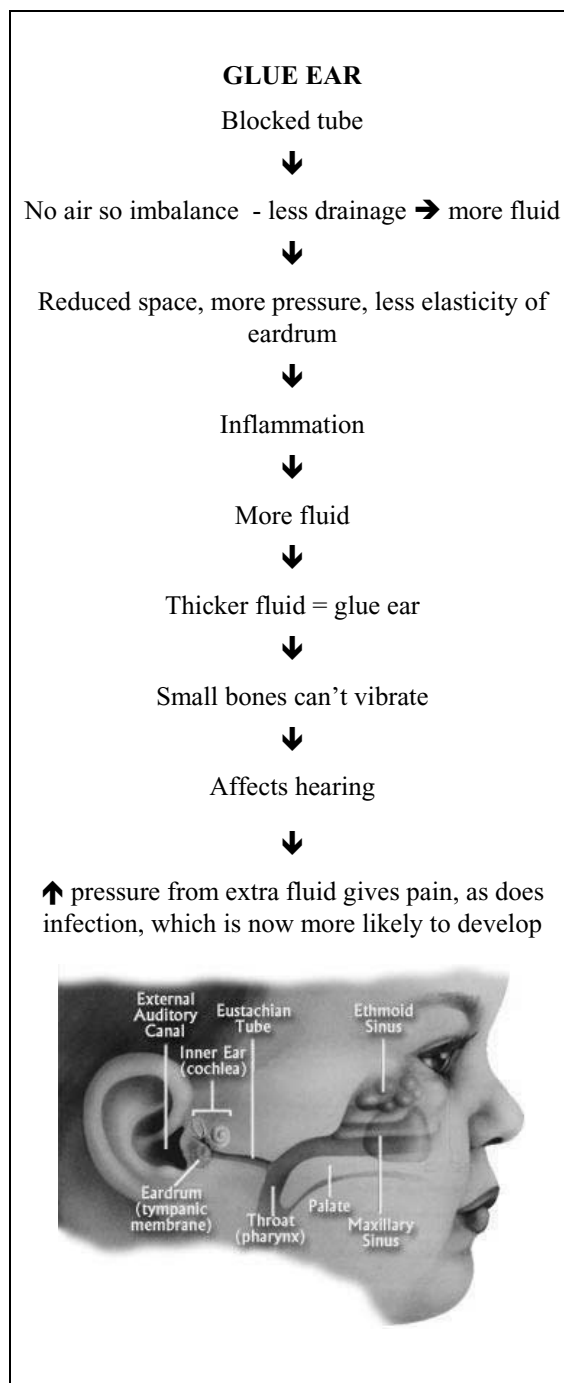
Why does GLUE EAR happen?

No-one really knows. Mucus builds up behind the eardrum. Colds and flu can set it off or make it worse as these involve increased mucus production. However, it often ‘just happens’ which means that there must be another cause such as a food allergy. It is more common in winter and boys are more vulnerable.

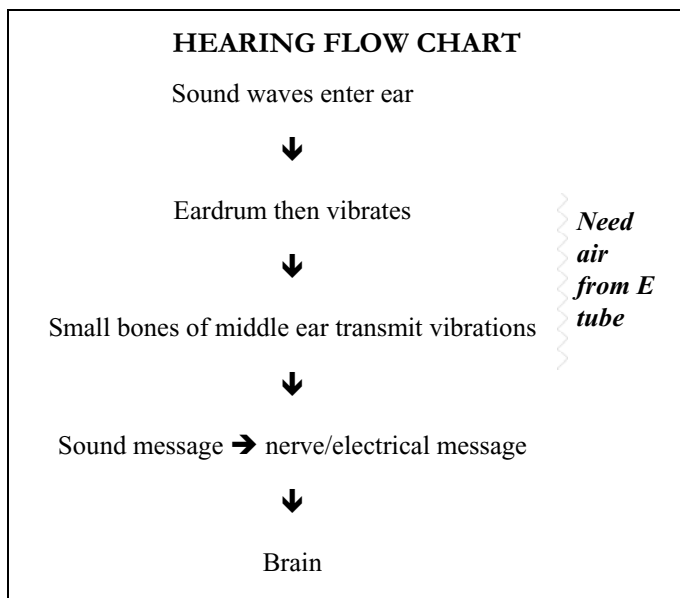
What affects glue ear?

Anything that increases congestion can cause the Eustachian tube to swell e.g. food allergies. Mucus producing foods such as milk and excessive sugar can increase mucus production as do wheat, eggs, bananas and **CALPOL!**

Calpol – read their effects leaflet where it states: *‘this medicine opens up your child to more colds’*. More colds mean more congestion so more glue ear! This leads to a cycle of illness that is so difficult to get off.



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Hearing is a result of a series of vibrations.

Sound waves enter the ear and move along the canal until they reach the eardrum causing it to vibrate. Three small bones – the malleus, incus and stapes - in the middle ear link the eardrum to the inner ear and transmit the vibrations... From here, the 'sound message' is passed, via the cochlea, which does the converting, along the auditory nerve to the brain.

The middle ear needs to be full of air to allow the eardrum and small bones to vibrate freely. Air reaches the middle ear through the Eustachian tube, which connects the middle ear to the back of the nose and throat.

The Eustachian tube is closed for 95% of the time and only opens when you swallow or yawn for drainage and to allow a little fluid in.

When things go wrong, a narrow or blocked up Eustachian tube will lead to a vacuum in the middle ear with resulting inflammation. First, fluid seeps out from this lining into the middle ear space. The fluid then becomes thicker, causing 'glue ear'. Fluid in the middle ear prevents the eardrum and small bones from vibrating and this affects hearing. This may last for a short or longer time and may be cause for real concern. Sometimes behavioural problems stem from a disturbance in hearing, as do developmental ones. Children who aren't speaking and developing properly may well not be able to hear.

Bouts of Glue Ear should decrease as the child and his tube grow, so is less common in children of eight and over.

It can be improved or prevented by dietary changes which may seem drastic but once employed become the norm.

The orthodox treatment for glue ear is invasive. Often, antibiotics are not necessary tho' this is frequently the first line of treatment. Surgery should, as always, be the last resort.

ORTHODOX TREATMENTS FOR GLUE EAR:

- Myringotomy and insertion of gromettes – a hole in drilled into the eardrum and a little tube is inserted to allow drainage. Gromettes allow air into the canal but the op leaves a fibrous scar. If the cause is not eliminated, the op may have to be redone. It is described as a tiny hole of about 3mm, but how big is the Eustachian tube of a three year old? The gromettes usually fall out in time. If the procedure as to be repeated, there will obviously be more scarring. This involves a general anaesthetic.
- Removal of adenoids – this is done with the thought that this will improve the drainage of the Eustachian tube. Adenoids are lymphatic tissue attached at the back of the nose cavity near to the opening of the Eustachian tube.
- Antibiotics – as seen from the description this is not a good choice as the infection may not happen. Glue Ear in itself is a congestion problem. Some antibiotics cause congestion and continual use of antibiotics often causes resistance – we were warned about all superbugs (such as MRSA) years ago. Antibiotics have been overused and abused. We really want to keep antibiotics for emergencies. Antibiotics also suppress the immune system and destroy the healthy bacteria (about 400 strains!!), which are required for digestion of B vitamins and are the first line of defence against bacteria, viruses, fungi and microbes. Common side effects are diarrhoea and vomiting and of course, 'thrush' as the antibiotics destroy the good bacteria that control fungal invasions in the body. Even after a course of antibiotics, mucus may still remain behind the eardrum/tympanic membrane.
- Drug therapy: antihistamines, steroids, decongestants, antibiotics, and medicines to 'thin' mucus can be given. However, research studies have shown that none of these medicines are much use in the treatment of glue ear.
- Laser treatments are being developed to make a drainage hole in the eardrum

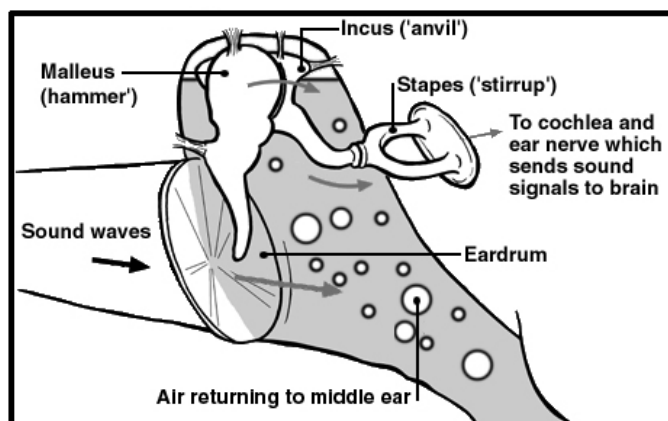
NATURAL PHYSICAL TREATMENTS FOR GLUE EAR

- Physical treatment including the Glue Ear programme (as researched by osteopath, Anthony Matthews)
- Reflexology where ear and tube points can be worked alongside lymphatic points
- Massage to neck and shoulders, face especially around the jaw/TMJ
- Remedial Massage, Advanced Remedial Massage, Osteopathy, Manipulative Therapy to restore balance in whole body.

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GOALS OF PHYSICAL TREATMENT

- **To improve the function of the Eustachian tube** (the tube that runs from the middle ear to the back of the throat), allowing air to circulate up to the middle ear.
- **To prevent infection and the build-up of mucus** that can cause glue ear.
- **To reduce pain**
Pain can be severe and due to excessive pressure, the eardrum may rupture.
- **To reduce fluid**
Dietary changes will have to happen to help this occur
- **To encourage drainage**
Manual techniques to assist drainage can be taught to parents to keep the situation improved and prevent further episodes.



IMPORTANT THE CHILD NEEDS TO GIVE UP COW'S MILK!

PHYSICAL TREATMENTS HAVE BEEN SUCCESSFUL BUT THE BEST RESULTS ARE OBTAINED BY THE CHILD GIVING UP COW'S MILK AND DEALING WITH ANY OTHER FOOD SENSITIVITIES OR ALLERGIES.

How can a growing child do without cows' milk: - it is supposed to be the best source of calcium and energy?

It isfor cows! It must be broken down properly and cows need and have four stomachs to do this! We don't. The immune system (our protective army) sees cows milk as an antigen/foreign body – i.e. to be destroyed.

The first reaction of the immune system to an antigen is to defend itself. It does this by producing massive quantities of mucus. This leads on to obstructing the middle ear, the sinuses (and can cause colic in babies). Babies can assimilate lactose but after the age of two, these special enzymes die off as we go onto more solid foods. It is worth noting, that the calf has four immature stomachs, but requires two of its immature stomachs to digest its OWN mother's milk.

There is more calcium in broccoli, kale, okra, cabbage, carrots, onions, watercress and turnips than cows' milk. Good sources of calcium can be found in certain types of fish, nuts, grains, seeds, and dried fruits.

Manual treatment deals with the lymphatics, mucus membranes and sinus areas using massage, articulation (not manipulation), and reverberation techniques. It is far less traumatic than the medical alternative as there is no general anaesthetic, the two primary defence systems (the adenoids and palatine tonsils) do not have to be removed, and the tympanic membrane is not scarred by a myringotomy or grommets. The manual treatment also negates the possibility of post-op infection via the grommet and future ops for the re-insertion of grommets, which can cause further scarring.

It involves a number of techniques including massaging the head, neck, shoulders and chest area and holding the chin firmly while the child opens and closes their mouth. **Parents learn the techniques and do them daily to the child.** Anthony Matthews presented a workshop on this to Advanced Remedial Massage students; he has carried out research into these techniques, which originated with Littlejohn.

'The first fifty children received manual treatment only, giving a success rate of 75-80%. The following 250 children were treated manually, but with the inclusion of some dietary change, which increased our success, rate to 90-95%. Our success rate was not only measured by myself using the Otoscope, but by the Audiology tests, and not still being referred for an operation'. Anthony Matthews

Health depends on the maintenance of proper relationships among the various parts of the body. Imbalances in the muscles, bones, and joints influence the natural function of internal organs. **We all have a toolkit of techniques which can be 'custom built' for all ages to help many difficult problems. The body has a natural healing ability – we all work with that.**

Management of Acute Otitis Media & Glue Ear. Drug and Therapeutics Bulletin 1995;12-15

Dr Anthony Mathews Herne Bay Osteopathic and Sports Injury Clinic Cates C. An evidence based approach to reducing antibiotic use in children with acute otitis media: controlled before and after study. BMJ 1999; 318: 715-716[Free Full Text]. (13 March.) Use of symptomatic medication in acute otitis media Abstract number: 1134_01_140 Vaililä J., Huikko S., Rautakorpi U.-M., Honkanen P., Klaukka T., Mäkelä M., Palva E., Roine R., Sarkkinen H., Varonen H., Huovinen P., for the MIKSTRA Collaborative Study Group Public Library of Science Genetics,