Have you noticed this about your child?
Then perhaps he/she has…

**Glue Ear**

**What is glue ear?**
Glue ear is a build up of a sticky glue-like fluid in the middle ear behind the ear drum. The movement of the bones in this part of the ear are impeded by the sticky mucus. Glue ear can cause temporary deafness. Glue ear is a very common condition in young children and it is more common in winter. In most children glue ear clears up on its own, but some children get persistent glue ear. Glue ear can become a more serious problem if it becomes infected, which, if left untreated, can cause permanent, conductive hearing loss. Glue ear usually ceases to be a problem by the age of ten years and the condition improves on its own before adolescence. This is because of improved size and angle of the eustachian tube which ventilates the middle ear.

**What causes glue ear?**
Many children can get glue ear because of:
- a cold or catarrh
- allergies to pets, pollen or dust

Some children with palate problems or with particularly small eustachian tubes can have recurring or even semi-permanent glue ear.

When we hear normally sound waves enter the ear and move along the ear canal until they reach the ear drum, causing it to vibrate. A chain of three small bones (ossicles) in the middle ear link the eardrum to the inner ear.

These bones transmit the vibrations from the eardrum to the cochlea in the inner ear, where there are thousands of tiny sound receptors. From here the ‘sound’ is passed along the nerve of hearing to the brain.

To allow the eardrum and small bones to vibrate freely the middle ear needs to be full of air and the bones need to be lubricated with moisture from the lining of the middle ear. This moisture would normally seep down the eustachian tube to the throat without being noticed.
Air reaches the middle ear through the eustachian tube. This connects the middle ear to the back of the nose and throat. The eustachian tube opens naturally when you swallow or yawn.

Children have a smaller, more horizontal eustachian tube than adults. This means that it is more likely to become blocked or constricted and this will stop it opening properly. The result of this can be a vacuum in the middle ear.

Once this vacuum has formed the lining of the middle ear becomes inflamed. The thin fluid begins to seep out from this lining into the middle ear space. Unable to flow through the constricted eustachian tube this fluid starts to collect in the middle ear and thicken around the middle ear bones, thus becoming the consistency of glue (hence ‘glue ear’).

When this happens the vibrations of the eardrum and small bones becomes sluggish, resulting in temporary conductive hearing loss. This is also what happens when a child has an ear infection.

What are the symptoms of glue ear?
It is not always obvious when a child has glue ear. Glue ear can affect hearing but it tends to be a fluctuating problem – the hearing problem comes and goes and it may be that one or both ears are affected at the time and different ears at another time. The child might:

- complain of earache
- say they have full or popping ears
- have a visible discharge from one or both ears
- suffer with frequent coughs, colds and catarrh
- have a louder or softer voice than usual
- not always respond when talked to or turn when their name is called
- find it difficult to concentrate and quickly get tired and irritable
- be slow to develop speech
- have immature speech sounds
- find it difficult to hear especially when there is background noise
- be slow to respond to simple verbal instructions
- give inappropriate answers to questions
- have difficulty locating directional sound
- say ‘pardon’ or ‘what’ all the time
- have particular difficulties with verbally related skills (phonic work, sound blends, discrimination of sounds)
- sit nearer to the TV or other sound source, or ask for them to be turned up louder

How is glue ear treated?
Treatment offered by the GP will depend upon how long and how often a child has suffered with glue ear, how bad the problem is and whether language development has been affected. Some GPs may prescribe antibiotics or decongestants.

A child who has been diagnosed with glue ear may well be observed for three months, and if they have further problems they may be referred to an ENT consultant:

- to have a hearing test which will assess the level of hearing loss
- to have a tympanometry test which assesses the movement of the ear drum and can detect the presence of fluid

Depending on the results of this the child may:
• be fitted with one or two hearing aids
• have a grommet fitted

A grommet is a tiny plastic tube which is inserted into the ear drum, under anesthetic, to drain the fluid from the middle ear. It is usual for grommets to be inserted in both ears.

Grommets do not cure the condition but alleviate the symptoms, i.e. discomfort and hearing loss. The grommet ventilates and equalises the pressure in the middle ear (the ventilation comes through the ear canal rather than the poorly functioning eustachian tube).

The grommet will stay in place for approximately 12 months from the time of insertion and is expelled naturally. Some children may require a second or third grommet. ENT consultants consider carefully the needs of the individual and mindful of the implications of more than one set of grommets.

Useful strategies to support a child with glue ear in the setting
• Make sure that they can see the face of the person speaking to them so that they can lip read to aid listening and concentration.
• Use clear speech with normal intonation and rhythm to help with understanding.
• For whole setting delivery, sit the child at the front and to the side of the group so that they are able to see you and their peers and can follow contributions from everyone.
• Give clear context and visual cues to the session.
• In whole setting discussion, try to adopt the ‘one person speaks at a time’ rule.
• When giving instructions gain the child’s attention first, i.e. say their name.
• Try to reduce background noise and keep the child away from noisy equipment or noisy areas of the room when you are expecting them to listen.
• Let the child sit close to the sound source when watching a DVD, listening to a CD etc.
• Have quiet conditions for any listening test – listening to a voice on CD may be difficult so perhaps use a ‘live’ voice instead. If giving a spelling test then say the word to be spelt, then say it in a sentence, then repeat the word again.
• Play listening games to help develop listening skills and auditory memory.
• Should grommets be fitted then care should be taken when swimming, washing and with cleanliness so as not to introduce infection into the middle ear.