

## EAR PROBLEMS & DENTAL HEALTH

Many people suffer from ear related problems, such as ear pain, a feeling of pressure or fullness of the ear, or ringing of the ear. If you suffer from any of these symptoms, it may surprise you to learn that they can be dentally related. This article explains how this is so and how dental treatment might help.



The most common causes of ear and tooth pain include infections, fluid buildup in the ear, temporomandibular joint (TMJ) syndrome, cavities, and tooth impaction. Ear and tooth pain often occur simultaneously due to the closeness of the nerves and other tissues in the face and head.

Pain deep inside the ear that may radiate down the jaw is often caused by a middle ear infection, and may be present with a fever and fluid drainage from the ear.

An infection in the ear canal, outer ear, or the mastoid bone behind the ear can also cause pain. These types of infections often occur with redness and swelling of the outer ear or the area around the ear, and require prompt medical attention. Infections of the teeth or gums due to poor oral hygiene, abscesses, or conditions such as gingivitis can also lead to pain in the mouth that may also affect the ear.



In children, continuous sucking on a pacifier can cause the auditory tubes to become abnormally open, which allows secretions from the throat to seep into the middle ear," explains AGD spokesperson Maria Smith, DDS. "Transmission of bacteria in secretions would lead to middle ear infections".

The bottom line is that if your child is continuously battling middle ear infections, you may have an alternative to surgery or antibiotics to stop this problem, says Dr. Smith, which would be to remove the pacifier.

Dental problems, including cavities and tooth impaction, often lead to ear and tooth pain. Pain from problems that affect the roots of the tooth can manifest in the mouth, up the jawline to the ear, or over the entire side of the face. Wisdom teeth located at the back of the mouth often become impacted.



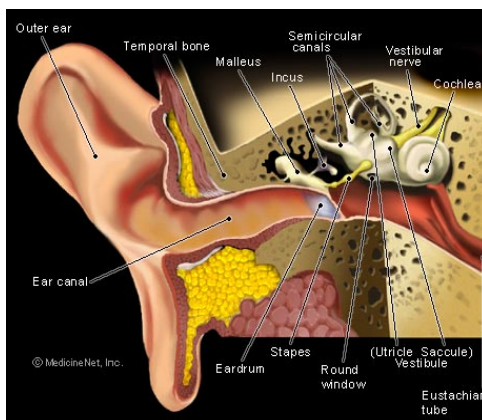
## Ear, Nose, Throat, Teeth and the Jaw

Ear and tooth pain that occurs at the same time is common for people who suffer from TMJ syndrome. The temporomandibular joints on either side of the jaw can become dislocated or suffer from wear on the cartilage disks that cushion the joints, resulting in pain that may occur at the jaw joint, in the ear, muscles or in the teeth.

What most people do not realize is that the jaw is also closely related to the ears. Problems with your bite and with the muscles that control the jaw can actually affect your ears.

### Bite, Joints and Ears

With misalign bite (malocclusion) or missing teeth your muscles must work harder in order to bring your teeth together for multiple functions like swallowing (more than 2,000 times in a 24 hour period), speaking or chewing. That constant contraction to provide the proper bracing support of the jaw against the skull with an unstable bite, eventually, the chewing muscles tire out and become shortened and stiff. This may result in painful muscle spasms and pull the jaw joints out of alignment.



Ear related problems can cause a variety of symptoms and have a wide range of severity. The physician who specializes in ears is commonly called the Ear, Nose and Throat specialist (ENT for short). Dentists and ENTs must work in close collaboration to diagnose and treat each case appropriately.

How might you know if your ear problems have a dental origin?

Dental related ear pain is usually felt in just one ear and feels very “deep.” It may travel down the neck, to the temple, or to the back of the head. It is usually aggravated by jaw movement.

Some of the symptoms may include:

- § Pain in the ears
- § Ear pressure or sense of fullness
- § Difficulty clearing ears, especially at high altitudes
- § Ringing of the ears
- § Dizziness
- § Excessive ear wax

In addition to the above symptoms, other clues are:

- § Sore / tender muscles around jaw joints
- § Clicking, popping, grating sound in jaw joints
- § Jaw shifts to right or left when opening wide



### ***The Ear and Jaw Bones.***

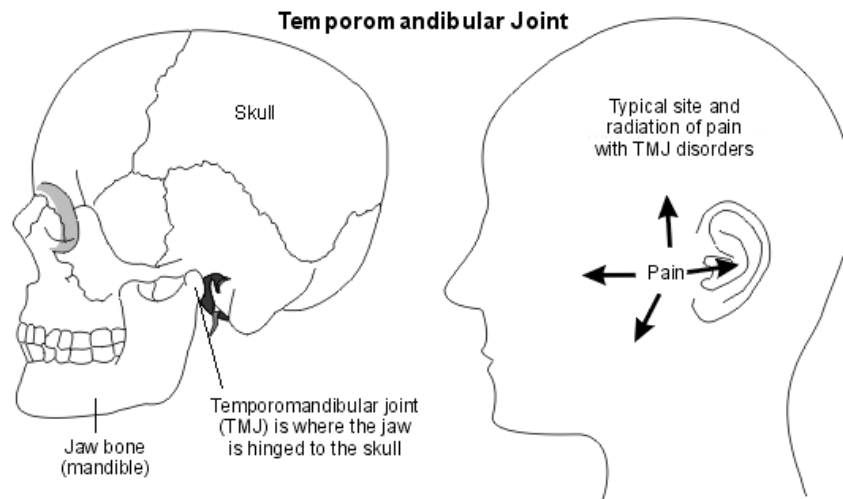
How do the jaw and ears relate? For the developing embryo, the jaw and ear bones start out as one and the same. As the embryo grows, these bones separate. The tiny bones of the ears are the smallest bones in our body and appropriately named for their shape: the hammer (malleus), anvil (incus), and stirrup (stapes). The movement of the hammer is controlled by a muscle called the tensor tympani. This little muscle is responsible for controlling the vibrations of the ear drum and protects our inner ear from loud sounds.



Because the ears and the jaw were so closely related in our embryonic development, the nerve which controls the tensor tympani muscle happens to be the same nerve which controls our chewing muscles. Consequently, any signals sent through this nerve can affect both the muscles of the jaw joint and those of the ear.



Not only are the ears and jaw connected by nerves, but they are also physically located very closely to one another. Your jaw is attached to your skull by two joints just in front of the ears. The part of your skull bone which separates your jaw joints from your ear canals is paper thin. Try placing both of your little fingers inside your ears and clenching your teeth. Most likely you can feel the movement of your jaw joints as you bite down. You can imagine that if these joints are displaced, they could disrupt the inner workings of your ear.



If you have any of the symptoms described, contact TORRES DENTAL GROUP. We will examine your bite and the muscles of the jaw to determine if this is the source of the problem. Dental treatment for TMJ syndrome includes mouth guards, jaw exercises, and bite therapy to help align the jaw and reduce clenching and grinding, so that the chewing muscles can function without extra strain and tension.

Do remember that these symptoms could be signs of a variety of ear problems. If you suffer from any of them, you should also get thorough examinations from an ENT (Ear, Nose and Throat) physician.

Take the time to understand your health. Your health is your most valuable possession. It's worth the investment!

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