

What's News in Speech!



Tongue Thrust, Dental Problems and Lisps: A Perfect Combination for Therapy



by Robyn Merkel-Piccini, M.A., CCC-SLP

Many student that are eligible for speech and language services, have three similar characteristics: 1. "A lisp," 2. "Tongue Thrust," 3. "Dental Problems."

This newsletter will discuss these three characteristics in detail, as they almost always occur together.

The Lisp

A lisp is the speech disorder most people know about. Common cartoon characters like Daffy Duck present with lisps. What some people do not know is that there are two different types of lisps: "interdental" and "bilateral."

An interdental lisp is the most common. The tongue pushes through the front teeth, which is why it is called "interdental." This involves a substitution error when "th" replaces "s." (For example, thun/sun).

A bilateral lisp is when air escapes from the corners of the mouth because both sides of the tongue remain "flat" in the mouth, instead of "curling" up when producing /s/. This gives speech a "slushy" or "slurred" sound.

The Tongue Thrust

A tongue thrust, also a "reversed swallow," is very common in school age children. All babies use a reversed swallow at birth to protect the airway; however, as the child grows grows, they develop a more efficient pattern.

There are many factors associated with tongue thrust. Some are developmental delays, hereditary factors, immature loss of teeth, thumb sucking, respiratory difficulties, and prolonged bottle feeding.

To make a tongue thrust easier to visualize, one can compare a normal swallow to that of a deviant swallow of the "tongue thruster:"

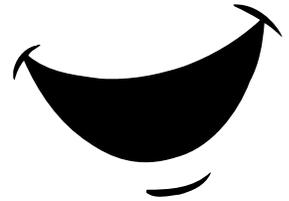
Normal Swallow:

- teeth and lips are sealed, relaxed and firm
- the tongue tip presses up against the top teeth

- the anterior of the tongue slopes downward to push food into the throat
- a negative intra-oral pressure forces the tongue into a wave like motion

Deviant Swallow:

- the sides of the tongue press against the anterior teeth
- the anterior of the tongue pushes upward and the tongue tip moves forward in a thrusting motion, sometimes through the teeth and lips
- the lips are pursed, and the jaw is open
- food is pushed back with a positive pressure



The Dental Problems

Orthodontists love children who have tongue thrusts, because the constant forward movement of the tongue against the top teeth causes a Class II Malocclusion known as an overbite. Braces with an anterior cage are often placed on 5-7th graders to prohibit the tongue thrust. Spaces between the top teeth are also common.

The Perfect Combination for Speech Therapy

Research indicates that a tongue thrust results in a lisp with secondary orthodontic features. Orthodontists know that braces will not cure the problem without “myofunctional” (tongue thrust) therapy. Speech therapists know that they cannot remediate interdental lisps without myofunctional therapy as well.

Children who present with these problems see a speech therapist in school, or privately. Therapy consists of a combination of tongue strengthening, repositioning, and practice of the accurate /s/ sound. The orthodontist and speech therapist confer on the most appropriate time to fit braces and introduce therapy. Children who are still losing teeth are not good candidates for therapy; however, they often receive treatment in school due to poor speech intelligibility in the classroom.

Lisps and tongue thrusts should not be ignored based on the importance of good dental health. If you suspect a student to present with a lisp, fill out a speech referral form as soon as possible.