The Roles of Oral Rest Posture and Neutral Position in Articulation Therapy

Pam Marshalla, MA, CC-SLP April 2010, Unpublished Rough Draft

THIS IS A SKETCHY PERSPECTIVE ON THESE TOPICS.
IT HAS BEEN GENERATED TO SATISFY THE GREAT NUMBER OF EMAIL OUESTIONS I RECEIVE ABOUT THIS ON A WEEKLY BASIS.

THIS IS MY THINKING AS OF 10:00 am on APRIL 22, 2010.

MY THINKING ON THIS TOPIC EVOLVES AND CHANGES DAILY.

Ouestion:

How do oral rest and the neutral position impact articulation? Should we be concerned about these subjects in clients with articulation/phonological deficit?

Answer:

So very many of our clients have problems with oral rest posture and the neutral position that I get at least one email per week from all over the world from SLP's trying to figure out what to do about it. I will have a chapter devoted to this topic in my next book to be entitled 21st Century Articulation Therapy—to be published probably in 2012. In the meantime, I have formulated the following answer that I am sending to you today.

Premise

I operate under the assumption that oral rest and neutral position DO effect articulation and phonological skill. There is no reason to discuss these issues without this premise.

ORAL REST POSITION

Oral rest reflects how the mouth should be positioned when we are not involved in any oral movement—eating, speaking, chewing gum, brushing the teeth, flossing, making faces, etc. Oral rest has been defined as:

- The lips resting gently together
- The teeth apart

- The tongue-tip resting gently against the alveolar ridge, or back of the anterior top teeth, in a crescent shape.
- The rest of the tongue, posterior to the tip, falls down and away from the palate.
- Breathing is done through the nose.

Oral rest reflects:

- How well the client can breathe through his nose.
- How the oral/facial muscular is impacting the positioning of the mandible and maxilla in relationship to one another.
- How oral-tactile sensitivity is impacting the tactile relationships between the tongue-and-palate, and between the upper-and-lower lips.
- The client's upright posture (integrity of the core muscles holding the body and head upright).

Today I would say that there probably is no *causative* relationship between speech and oral rest. Instead, I would say that oral rest, eating, and speaking, are all three a reflection of how well the client's oral mechanism is structured and how well it functions. In other words, oral rest is a skill just like speaking and eating are skills. Oral rest will be impacted by oral structure and function just as speech and feeding are. Therefore, oral rest can be ignored in articulation and phonological therapy. However, in the ideal setting, speech, feeding, and oral rest all are treated together. They all are a reflection of how well the oral mechanism functions. We teach oral rest, feeding, and speech skills together to help mature all oral movements simultaneously.

Stimulating correct oral rest

The orofacial myofunctional literature is where to read about facilitating and habituating oral rest. In essence, most of these works recommend the following:

- rest. Place a thin lightweight object between the lips for the client to hold gently in place for gradually increasing periods of time (5 minutes, to 30 minutes, to all the time). Use a coffee stirrer straw or tiny round orthodontic elastic. Do not allow the client to press his lips firmly together. This should be a gentle lip-to-lip placement with the object in between. You are teaching the client to habituate the gentle lip-to-lip resting posture. (Have the client massage his lips beforehand to loosen them up if they are very stiff or retracted.)
- Teach the client to keep his tongue-tip pressing gently against the alveolar ridge during rest. Use tiny round orthodontic elastics. Place one on the tongue-tip, and have the client press it against the alveolar ridge. Teach the client to hold the elastic gently in place for gradually increasing periods of time (5 minutes, to 30 minutes, to all the time). You are teaching him to habituate the tip-to-alveolus resting posture.

NEUTRAL POSITION

Neutral Position is a completely different story. Neutral position is that position that the mouth attains to prepare itself for speech. The term, *neutral position*, was coined by Chomsky and Halle (1968). It was a bad choice for a name, in my opinion, and it should have been called the *starting position* for speech. That is because this is what the mouth does to get ready to utter a sound or word. I will call it the *neutral/starting position* here.

According to Chomsky and Halle—who studied x-rays—the mouth does the following just before we speak. This is the definition of the neutral/starting position:

- The mouth opens (the jaw lowers slightly)
- A quick inhalation is taken through the mouth
- The tongue assumes it's neutral/starting position which corresponds to /I/ (short "I" as in *hit*). In other words, the tongue retracts slightly and elevates its lateral margins to about the same height as it assumes for "short I".

Feeling the neutral/starting position

The reader can feel this position by prolonging /I/. Can you feel the jaw slightly lower, and can you feel the tongue bowing in the back with the back-lateral margins of the tongue in contact with the molars or hard palate next to the molars? If you cannot feel the tongue position for /I/, try this: Say /k-k-k-k/ many times in a row. Do you feel the middle-back of the tongue elevating and lowering as you say /k/? I hope so. Now, think about the sides of your tongue, on either side of the middle-back. Do you feel how the back-lateral margins of the tongue are staying relatively still as the middle-back goes up-and-down? The lateral-back margins of the tongue should be positioned against the inner surfaces of the molars, or squeezed between the molars, or positioned against the palate near the molars. This lateral position on both sides is the tongue's neutral/starting position.

Tongue stability

This back-lateral stability has been called by many names by many writers throughout the history of speech-language pathology and elocution: "Neutral position", "Points of tongue stability", "Stabilizing zones", "Zones of stability", "Shoulders of the tongue", "Tongue anchors", "Fulcrums of tongue movement", "Back-lateral side spread", "That cramming of the sides of the tongue against the teeth", "Long E", and more. (I will reference all these in my book to come).

This contact of the back-lateral margins of the tongue upward against the molars or palate is the tongue's way to attain proximal *stability* during speech. In other words, all the *movements* of the tongue are based around these two points of *stability*. This is a reflection of the basic motor principle that all movements are accomplished through interplay of *mobility* and *stability*. The back-lateral margins of the tongue stabilize while the rest of the tongue mobilizes (the tip elevates, the sides elevate, or the middle-back elevates).

Clients

Now back to our clients. Many of our clients speak with incorrect tongue stability. Some of our clients lower the jaw too far and let the tongue hang forward and down. They may do so during oral rest, but the important thing is that they use this position as their starting position for speech. They rest the underside of the tongue against the lower lip, and this is their neutral/starting position. This is the pattern we see in a persistent interdental tongue position on the lingua-alveolar phonemes /t/, /d/, /n/, /l/, /s/, and /z/. Usually this is seen in low tone, but the causes also can be those we listed above, or this can be a simple habit. These clients need to learn to hit and hold back-lateral tongue stability during speech.

A second group of clients have a different problem: They retract the jaw, lips, or tongue for their neutral/starting position. These clients also need to learn to hit and hold the correct neutral/starting position for speech.

- Those who retract the lips have a perpetual smile on their faces.
- Those who retract the upper lip upward seem to sneer all the time.
- Those who retract the lower lip expose their bottom teeth.
- Those who retract the jaw look like they have an under bite, and they often have oral resonance and/or *backing* problems.
- Those who retract the tongue pull the back of the tongue up toward the velum when they talk. The middle-back of the tongue elevates high and the lateral-backs sit low and lax. This is the opposite of the neutral/starting position.

Facilitating Neutral Position

There are many ways one can facilitate the neutral/starting position. This is the easiest way:

- Teach and over-practice an exaggerated /i/ (Long E). Long E puts the tongue in an exaggerated neutral/starting position. Teach the client to say /i/ with the lips widely retracted and the sound "super-over exaggerated". It's a BIG EEE.
- This has to be a correct /i/— the jaw must be high, the lips must be retracted, and the tongue must be inside the mouth and behind the front teeth.
- I teach my clients to hit and hold theis exaggerated /i/ for increasing lengths of time—while they are waiting their turn, drawing, or otherwise engaged.
- Then I teach them to say syllables in VCV construction with the big EEE: eePee, eeBee, eeTee, eeDee, eeKee, eeGee, eeMee, eeNee, eeWee, eeLee, eeYee, eeRee, eeFee, eeVee, eeSee, eeZee, eeShee, eeZhee, eeChee, eeJee, eeHee. The key is that they have to hit and hold the vowel position first, then slide into the consonant position. This is teaching him to attain the neutral/starting position before he moves toward the vowel.

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- Then we drop the first vowel, and go on to CV words: pee, bee, tea, Dee, key, gee, me, knee, we, Lee, fee, see, she, he... In other words, the client is now hitting and holding the neutral/starting position in silence. It may take a while for the client to get this.
- Then go on to CVC words: bean, dean, feel, green, heal, jeans, keep, leap...
- And advance up the levels from there... At some point, the exaggerated /i/ position is relaxed.

CONCLUSION

The idea here is that accurate and advance movements of the lips and tongue are based upon the neutral/starting position, or what has been called *oral stability*. Oral stability is achieved with the jaw and tongue in the right positions. This concept originally came from the feeding/NDT literature. We have discussed tongue stability here (and not jaw stability). I will discuss both in my next book. I hope this begins to answer your question about the relationship between oral rest, neutral position, and speech.

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