Myofunctional Therapy

Friday, June 15, 2012

OroFacial Muscle Re-Education

Myofunctional therapy is a program used to correct the improper function of the tongue and facial muscles. Myofunctional therapy involves strengthening of the tongue and orofacial muscles by teaching individuals how to reposition muscles to the appropriate position. The tongue should be kept in a high position against the hard palate during sleep with its dorsal-terminal end in constant contact with the palatine striae located on the anterior aspect of the palate. Reeducation is typically easier in children 6 years and older, but is largely related to the degree of effort parents make in reinforcing a child to perform his or her exercises.

The presented exercises are fully described in the following book:

Rééducation des fonctions dans la thérapeutique orthodontique, 1990

These exercises have been performed not only in France, but also at the Stanford Sleep Disorders Clinic as well as other countries such as Brazil, Belgium, and Taiwan.

Please repeat the following exercises for 10 repetitions and perform at least 10 sets every day (The total exercise time across the day should be 45 minutes total throughout the day). If ten sets cannot be achieved, the exercises should be performed for a minimum of 4 sets and as many repetition necessary to achieve 45 minutes of daily exercise. These exercises should be performed daily for a minimum of 2 years.
Exercise 1: Push Up The Tongue: Place the tip of the tongue against the anterior portion of the hard palate and push upwards and hold for 5 seconds and relax. Repeat 10 times.

Exercise 2: Touch Nose: Pull the tongue forward and try to touch your nose and hold for 10 seconds then relax. The subject here has difficulty performing the exercise. With practice she should be able to improve. Repeat 10 times.
Exercise 3: Touch Chin: Pull the tongue forward and try to touch your chin and hold for 10 seconds, then relax. Repeat 10 times.

Exercise 4: Push Tongue Right: Push your tongue forward and push it to the right and hold for 10 seconds, then relax. Repeat 10 times.

Exercise 5: Push Tongue Left: Push your tongue forward and push it to the left and hold for 10 seconds, then relax. Repeat 10 times.
Exercise 6: Fold Tongue: Fold your tongue and try and protrude as far forward as possible while keeping it folded. Hold for 10 seconds, then relax. Repeat 10 times.

Exercise 7: Click the Tongue. Please perform the following exercise as shown in the video below. Perform the exercise for 15 seconds and repeat 10 times. Please turn up the volume on your machine to hear the clicking sound. The first video is clicking that needs to be improved vs the second video which demonstrates loud clicking that is better.
Exercise 8: Push Tongue Against Spoon: Push the tip of the tongue forward and straight and push hard against a spoon. Make sure to keep the tip of the tongue straight as shown below (Repeat 10 times):

A: Good Position

B. Poor Position
Exercise 9: Hold A Spoon: Hold a spoon between your lips (Make sure that it is between the lips and NOT the teeth). At the beginning you may use only a spoon, but as you become more advanced you can use a small object (sugar cube/chocolate/etc) to add difficulty. Proper and Poor position are shown below:

Proper Position (Note Head/Neck/Spoon):
Poor/Inappropriate Position:

Exercise 10: Hold Button: Tie a button to a string that is at least 10 cm in length.

Take the button and put it inside of your mouth between your lips and your teeth. Hold your lips as tight as you can and then pull on the string in a horizontal plane and do not allow the button to be pulled out. Hold for 10 seconds then relax. Repeat 10 times. For added difficulty, older children can try to hold the button (or a coin) flat in between their lips.
Caution: Please make sure that the child is old enough to make sure that they can hold the string, or parent is holding straight to avoid the child accidentally swallowing the button.

Pulling button with string

Holding button flat between lips

Prior to these exercises being performed, your child's frenulum should be evaluated. If he or she is having difficulties performing the exercises outline above, it may be due to a short frenulum that can be evaluated by their sleep specialist. (Treatment involves a small procedure to release the tongue into a normal position and can be discussed with sleep specialist and ear/nose/throat specialist). Below are two photos pointing to the location of the frenulum i.e. a small ligament in the middle of the tongue that attaches the tongue to the base of the mouth anteriorly.