advance
for Speech-Language Pathologists & Audiologists

I work primarily with children ages 3-14 with articulation and oral-motor difficulties. Most have some difficulty with tongue rest position and jaw stability, as a result of muscle weakness, and low muscle tone in the cheeks, lips and/or tongue.

To help with most of these oral-motor weaknesses, I have used a combination of well-known programs, including the horn program by Sara Rosenfeld-Johnson and some Beckman stretches. These work extremely well, but something extra was needed to establish the appropriate jaw position.

To strengthen the masseter and external and internal pterygoids and facilitate improved jaw stability strength position and tongue/jaw isolation, I have had children bite on soft, resistant tubing, the Arc grabber and bite sticks. I attempted to obtain "natural bite" and then have children open their mouth a quarter of an inch and freeze in this position. However, children have difficulty achieving and sustaining this.

I was unsuccessful using bite blocks. I felt uncomfortable placing a small, non-edible object between the molars. Most of the children I worked with were resistant to having bite blocks placed in their mouth, even when I tried spraying them with different flavors.

I needed something else to help the children achieve and maintain a slight opening without the jaw sliding forward, backward or sideways. I tried using small pieces of thin pretzel, but they dissolved too quickly or cracked. I then tried Gummy Bears. The children loved selecting a color and welcomed having them placed on their lower molars, but they bit through them too quickly. There was not enough resistance. I looked for something edible that would take longer to dissolve but still provide enough resistance.

Finally, I tried using the chewy candy Starburst® with a 14-year-old patient. We were targeting /ir/, /ar/, and /or/; and he was having difficulty maintaining jaw stability. I provided a choice of sour and regular Starbursts and cut the selected piece in half. With a gloved hand I pushed half the Starburst down on the back two molars on either side. I asked the teen to close his mouth slowly and rest his top teeth on the Starburst. He was able to produce the target sounds, and we had sufficient time to practice words before his upper and lower molars were touching. He did need to swallow excess saliva several times.

I massaged his muscles near the temporal mandibular joint (TMJ) to emphasize where the contraction was and then encouraged him to chew the Starburst while maintaining lip closure. He chewed the candy, which required a considerable amount of effort, and finally swallowed it.

I asked him to position his jaw as if the candy were still present, while I stimulated the masseter and internal (medial) pterygoid near the TMJ on the ramus to assist with muscle contraction. He was able to do this and hold the position for speech. He had formed a "motor memory," which enabled him to assume the appropriate jaw position.

I replicated this with other children on my caseload. I got permission from the parents to use the candy in therapy. (I am currently looking for fruit juice-sweetened alternatives.)

Many of the children had difficulty with jaw stability and tongue tip elevation. They produced /l/, /t/, /d/, /s/, and /z/ interdentally.

Other oral-motor exercises and stretches are being used to facilitate improved muscle tone, strength, mobility and stability. My clients were encouraged to "bite more" for /s/ and /z/ to create a smaller space between the upper and lower front teeth.

When using Starburst, I vary the size and shape of the candy. For younger children I place one-fourth of a piece on either side

and change the shape, such as rolling it into a ball or strip. Once they chew the candy, I pretend to put some candy on their lower molars, encourage them to close gently, and stimulate the masseters near the TMJ on the ramus using rotary movements with the pads of two fingers. The parents were most impressed by the difference in target sound production both with and without the candy.

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