

# **What is Oral Placement Therapy (OPT) and Why is it Important for Individuals with the Diagnosis of Down Syndrome?**

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Oral Placement Therapy (OPT, a new term coined by Sara Rosenfeld Johnson of TalkTools Therapy®) is a type of oral-motor therapy used by Speech-Language Pathologists (SLP) to target specific movements needed for speech clarity and feeding. It is one aspect of an oral motor therapy program that addresses the motor components used in feeding and speech. Oral motor therapy (OMT) can be used with a variety of clients including those with Down Syndrome.

When a client has no speech, very little speech or speech that is difficult to understand, it is the job of the SLP to determine why he or she is having difficulty. In a traditional speech therapy evaluation, the therapist commonly assesses the client's speech and language skills through observation and formal assessment. Speech clarity is often assessed by listening to the client, determining what speech sounds the child has difficulty producing or saying and then working on those sounds or groups of sounds the client may not use appropriately. The client may not be using any words at all. In that case the therapist uses strategies to stimulate speech sound imitation. Some clients produce a wide variety of isolated sounds but are unable to put them together to formulate intelligible words. For some of these clients the SLP can use traditional therapies (I will refer to these as "Watch me, listen to me, and do what I do" techniques) using visual (watch me) and auditory (listen to me) modeling to target their speech sound errors. However, there are a number of children who do not respond to these typical visual and auditory treatment techniques. For example, children with Down Syndrome tend to have a combination of muscle function, motor planning and auditory concerns that preclude a positive response to such strategies.

Here is an example of a traditional "watch and listen technique" for producing the /b/ sound (i.e. the client does not produce the sound on his own, and the therapist would like him to begin using the sound at the appropriate developmental level. For an infant this may be through babbling and for an adolescent or teen this may be in conversation).

- 1) If the client does not use this sound on his own, the therapist may show him how to make the sound ("watch me"), allow him to hear the sound ("listen to me") and then wait for the response. These techniques are often implemented using word lists, picture cards, natural environment modeling, and structured activities.

- 2) Once the therapist has modeled the requested sound, word, or phrase, the client's response must be interpreted.
- 3) The response can be categorized as:
  - correct
  - incorrect (e.g., client says /p/ instead of /b/)
  - Attempted but possibly in the wrong way (e.g., the tongue is protruded between the lips as he attempts to make the sound); or
  - No response at all (the client may not understand what the therapist is asking him/her to do or may have no interest in participating).

When using this type of traditional therapy technique the therapist will often try what turns out to be an ineffective therapy technique again and again because the SLP knows repetitive practice is necessary to correct speech. The hope of this practice is that the client will produce the sound correctly at some point, isolate the sound, or perhaps try it in a different context or word. This technique works well when the client has of the following:

- 1) a typical oral motor system
- 2) the ability to move the jaw, lips, and tongue in a coordinated and independent manner
- 3) the ability to access enough air support to produce the sound and ability to imitate the movements correctly. This traditional type of therapy usually requires the client to
  - watch the therapist's speech movements,
  - listen to the therapist,
  - identify the differences between what the client is saying and what the therapist is modeling, and
  - attempt a change.

While this therapy technique works for many clients it does not work for all of them. Many parents who come to our clinic report that their children have attended traditional speech therapy for many weeks or years. However, they notice no change or minimal change in their child's speaking skills. So, what does the client need who cannot produce speech movements correctly using the traditional watch and listen approach?

Oral Placement Therapy (OPT) for speech targets the movements necessary for standard speech production through a combination of therapy techniques. This therapy differs from traditional speech therapy in that the strategies continue to utilize auditory and visual stimuli while **ADDING** the tactile and proprioceptive sensory systems. This allows the client to *feel* the movements as well as *hear* and *see* them. Here is an example of an oral placement approach for producing the /b/ sound:

- 1) The client does not produce the sound on his own, and the therapist would like him to begin using the sound at the appropriate developmental level (for an infant this may be through babbling or an adolescent or teen in conversation).

- 2) Upon assessment of his oral motor skills, it is determined that the client has difficulty closing his lips during spoon feeding as well as during speech attempts. (i.e., The client does not make upper and lower lip contact on a spoon when eating, but instead protrudes his tongue underneath the spoon) Lip movements for clearing the spoon requires a different motor plan than the lip movement for the production of the /b/ sound. However, this assessment provides the therapist with important information about the child's lip movement. Strategies that encourage a *correct* lip closure are implemented during therapy. Success-oriented activities are chosen carefully based upon the client's skills. These may include one or more of the following:
  - a. lip closure on a spoon using therapeutic spoon positioning,
  - b. blowing a horn with a flat mouth piece, or
  - c. placing a tongue depressor horizontally between the lips to encourage appropriate separation, grading and direction of movement.

These activities not only allow the client to practice the placement for lip closure but also add tactile (touch) and proprioceptive (feel) input to the movements the therapist is targeting. The "normal" movement patterns for these tasks provide the child with success in bringing the lips together. Similar movement patterns are required for the production of the /b/ sound. It is critical to closely monitor these movements to ensure that the client is not using excessive jaw movement, lip retraction, biting, etc. ...during all lip closure tasks so that appropriate muscle memory can be established for these tasks. As soon as lip closure is established, the placement is transitioned into speech. The therapist then teaches the sound because the client now knows how to produce the movement.

Sometimes a client has difficulty transitioning non-speech skills to speech. These clients often require additional tactile-proprioceptive input such as the TalkTools Therapy® Apraxia shapes or other oral placement cues (e.g., those used in PROMPT or motokinesthetics). Many clients require additional assistance and a number of steps as described above to develop the foundational skills needed for speech.

It is a known fact that clients with the diagnosis of Down syndrome have movement disorders within the mouth and throughout the entire body. While a range of skill levels are seen within individuals with the diagnosis of Down syndrome, the SLP using oral motor therapy must have a full understanding of normal muscle development to assess the client's current skill levels.

After a complete "Oral Placement/Movement for Feeding and Speech Evaluation" is performed the therapist may find that:

- 1) Some clients have plateaued in their oral motor development resulting in less than adequate skills for feeding and speech when compared to their chronological peers. These clients often do not eat age appropriate foods or use age appropriate words or combinations of words.

- 2) Some clients have developed compensatory strategies for feeding or speech. This is characterized by abnormal movements, developed in an effort to perform the needed motor activity used in speech and feeding.

Tongue thrust and poor chewing (rather than chewing on the back molars) are examples of compensatory patterns. Because the client does not have adequate jaw movements he/she may use this compensatory pattern to eat developmentally appropriate food consistencies. A forward tongue position during speech is also a compensatory pattern. In this case, the client often uses the blade of the tongue to produce sounds such as /t, d, n, or l/ rather than using appropriate tongue tip contact to the roof of the mouth just behind the front upper teeth. These clients are often difficult to understand when communicating in phrases and sentences, because use of the tongue blade in the production of these sounds is very inefficient. In both scenarios, traditional speech therapy techniques usually do not benefit the client. The traditional techniques of “listen, look, and do what I do” fail to address underlying motor issues. These clients often cannot achieve placement or movement necessary to safely eat and/or speak due to limited coordination, agility, placement, and precision of muscle movement.

It is important to recognize that oral motor techniques *must* facilitate movements related to speech and feeding. Well meaning therapists or others who are not appropriately trained in oral motor therapies may recommend ineffective techniques. For example, exercises may be suggested to “improve muscle skill or strength” that do not have anything to do with speech movements. One such oral motor technique is sticking the tongue out and moving it side to side, referred to as tongue tip lateralization. Tongue tip lateralization is needed for eating. However, it should be remembered that tongue tip lateralization during placement and collection of food from the back molars occurs *inside* the mouth and should therefore be practiced inside the mouth. Drinking from a straw or blowing a horn without clear goals or direction on how the client should correctly use the tool to facilitate appropriate direction, grading, or separation of movement can be equally ineffective.

A therapist must ask these questions each time he/she chooses any therapeutic technique:

- 1) “What technique am I considering?”
- 2) Why am I considering using this technique?
- 3) How does it teach the goal I am targeting?

If you can adequately answer each of these questions you are most likely on track. If you cannot relate the technique to your targeted goals, you should not use that technique.

It is just as important to understand that facilitory exercises or activities alone do not create intelligible speech. They must be transitioned directly into speech in order to set down the motor plans for speech. TalkTools Therapy® has chosen to use the term Oral Placement Therapy to describe therapy techniques that:

- 1) incorporate a variety of appropriate oral motor techniques
- 2) transition oral placements and movements into speech as soon as possible.

Therapists trained in Oral Placement Therapy identify a client's oral motor developmental stage, and develop a program plan with motor-appropriate speech practice. They choose sounds/words/vocabulary reflecting the client's current skills, while working to develop oral motor skills needed for more sophisticated and precise speech.

With this information a parent may question, "How does this apply to my child with Down syndrome and do I need to consider Oral Placement Therapy?" If the child is seeing or has seen a physical therapist or occupational therapist to develop gross and fine motor skills, then the answer to that question may be yes. Feeding and speech also involve fine motor function. The child can develop these fine motor skills within the mouth using Oral Placement Therapy. A full assessment by an appropriate trained therapist examining the relationship between the child's oral sensory system, feeding skills, oral placement skills and speech will help parents make the right decision. The results will:

- 1) identify if the child is on target for oral motor, feeding, and speech development. (Traditional therapies are usually for children with typical oral motor skills who have speech disorders.)
- 2) identify areas that are delayed and
- 3) identify compensatory strategies a child may have developed in an effort to "keep up." If deficits are identified, additional therapy techniques can then be introduced to address the foundational skills needed for speech production.

Therapists who have completed 3 to 4 levels of TalkTools Therapy® training have additional training in sensory processing, Feeding, and Oral Placement techniques to facilitate speech. Information on the TalkTools training levels can be found at [www.talktoolstherapy.com](http://www.talktoolstherapy.com). At this time, Oral Placement Therapy is not taught in most university speech- language therapy programs. While the term was coined by SRJ, there are a number of other therapists who use various forms of oral motor therapy. For example, PROMPT and motokinesthetics are forms of oral motor therapy. Therapists working with children with special needs must be trained to recognize the unique treatment needs in each of their clients and identify the need for appropriate therapy approaches for their clients. This may involve training beyond their undergraduate and graduate programs.