

What is apraxia that affects speech?

Individuals with apraxia that affects their speech (acquired apraxia of speech) may know what words they want to say, but their brains have difficulty planning for and doing the muscle movements necessary to say all the sounds in the words and syllables, and/or to control the phonation (voice) necessary for speech and conversation. As a result, they may say something completely different or make up words. The person may recognize the error and try again-sometimes getting it right, but sometimes saying something else entirely. It is important to recognize the difference between developmental childhood apraxia of speech and acquired apraxia that affects speech. The treatment approaches should be very different as the person with acquired apraxia has already learned to talk and has mastered the motor programming skills necessary for connected speech. In other words, they need to reconnect those abilities not learn them.

A critical factor in effective treatment and practice for recovery of communication skills is to differentiate the effects of phonological aphasia (phonemic paraphasia) from apraxia that affects speech. Several studies have shown that this can be difficult for even skilled speech-language pathologists. This means that to truly exploit neuroplasticity to maximize recovery, timing of what to work on and when to work on it is crucial.

Individuals with apraxia may demonstrate:

- Difficulty imitating and producing speech sounds, marked by speech errors such as sound distortions, substitutions, and/or omissions;
- Inconsistent speech errors;
- Groping of the tongue and lips to make specific sounds and words;
- Slow speech rate;
- Impaired rhythm and prosody (intonation) of speech;
- Better automatic speech (e.g., greetings) than purposeful speech;
- Inability to produce any sound at all in severe cases.

In a recent exchange on Facebook, Master Clinician Bill Connors responded to an SLP concerning apraxia:

Recent SLP Question:

Looking for some advice again! I have a pt several months status post (6+) cva with severe apraxia... She is able to produce l O and E which has been a long time coming! She also says la la la for everything. Lately it seems as though we have hit a road block and are unable to make any more progress. I have tried everything I know

(which isn't much ;)) I have used visual feedback with a mirror and having her watch me. She seems to hold her breath glottally and I am unable to break that for any possible plosives. Any ideas for adult apraxia! Thanks

Bill's Response:

We use a motor reconnect (less emphasis on motor learning since the client has already learned to speak) approach. We start with reestablishing neural control over the laryngeal structure which allows for easy onset and control of voicing. We have created a program called The Viking for this re-establishing separate neural controls for jaw-mouth and vocal folds. We then incorporate some pre-syllabic and pre-prosodic work. Once the client has begun to demonstrate reconnection of laryngeal behavior, we begin to address jaw control combined with producing vowels. We utilize three jaw positions and 10 basic vowels. If our clients, who are re-connecting their abilities not relearning them, need to address consonants then we incorporate that into some diadochokinetic type of exercises (our Oral Motor Coordination Program) We are constantly helping the client overcome learned helplessness, work from their own memory, understand they are self generating and creating syllables, appreciating the normalcy of movements planning and execution for speech production, and emphasizing the neuroplastic mantra of KNOW>THINK>PLAN>DO>PROCESS/ATTEND/REMEMBER. While we are doing this we are also addressing any issues related to asymbolia, initiation difficulties and apraxia that might affect the limbs. Somewhere about in the middle of this endeavor we begin to address the always present in my past experience phonological aphasia using our AphasiaPhonics program. Blending the two is sort of the art of treating apraxia that affects speech and voice. We also have techniques to approach the important aspects early in the treatment process of anticipatory coarticulation and blending especially as it relates to the early sentence work with subject pronouns, modals and basic verbs. We definitely avoid eternal focus on mirrors or limitation of animated apps. We are very little into repetitions and way more into self-generated neural flows. We shoot for self-generated vocalizations that >>>> to independently or from memory produced words and phrases.

Bill Connors

Aphasiatoolbox.com uses the **Motor Reconnect Apraxia Program** (MRAP) for people with apraxia of speech. See the article in this edition called: "FREE Protocol for Apraxia and Dysarthria".

Sources:

1. Apraxia of speech, <http://www.asha.org/public/speech/disorders/ApraxiaAdults.htm>
2. What is apraxia of speech? <http://tactustherapy.com/whatisapraxia>
3. Mauszycki, S & Wambaugh, J, Acquired Apraxia of Speech: A Treatment Overview, The ASHA Leader, April 26, 2011 <http://www.asha.org/Publications/leader/2011/110426/Acquired-Apraxia-of-Speech--A-Treatment-Overview/>