MINNESOTA VOICE & SPEECH CLINIC

Increasing Vocal Resonance

Voice can be changed in the following parameters:

1. Pitch (highness or lowness)
2. Loudness or softness
3. Voicing or nonvoicing
4. Nasal or non-nasal
5. Inflection up or down

Perkins describes two other parameters of voice:

6. Horizontal (the dimension from the pharynx to lips).
7. Vertical (supraglottic to nasopharynx and jaw opening).

The last two dimensions have the most to do with resonance.

Think of the pharynx, the mouth, and the nose as being a wave guide for sound. The more restricted or closed the wave guide becomes, the resonating area is available for sound.

The more open the wave guide becomes, the greater resonance area is available for sound to build.

Ways to increase resonance:

- ✓ Increase the available dimension of the oral cavity.
  - ✓ Increase jaw opening while speaking.
  - ✓ Improve lingual posture.
    - ■ Decrease tenseness and highness of the posterior part of the tongue.
- ✓ Rest the anterior portion of the tongue more on the alveolar ridge.
- ✓ Establish articulation of t, d, n, l with the tongue tip approximating the alveolar ridge with jaw opened at least the width of the little finger.
- ✓ Lingual movement for articulation must be separated from mandibular movement.
  - ✓ Improve soft palatal movement
    - ■ Tongue exercise will help (remember that some of the musculature of the tongue passes into the soft palatal sling.
    - ■ Lip exercises can help improve the pharyngeal wall control.
- ✓ Develop forward resonance to the alveolar ridge.
  - ✓ The alveolar ridge is a hard bony area that resonates into the facial mask.
  - ✓ As the tongue becomes better toned, the edges will start to vibrate when localizing n, d, l and “high” vowels.
  - ✓ Practice “nnnn” with easy vocalization
    - ■ Feel the bridge of the nose begin to vibrate
    - ■ Little effort should be felt with the voice
    - ■ There will develop a feeling of a “ringing” to the voice
    - ■ Begin to transfer this feeling to a “prolonged” d and l.
    - ■ Combine with “high” vowels i, I, eh, u, U in CV contexts feeling vibration at bridge
    - ■ Decrease lip flattening and lateralization movements.
    - ■ Keep the “diamond” shape of the mask “high and narrow” not; “short and wide”and lips should remain lax, except for rounding for o, u, U, aw.

There is sort of a principle of the physics: Things that are round want to stay that way, those that aren't want to get there - or need to be. The best resonating wave guides are those that are round, not square or flat. Hence, no smiley look to speech (in the extreme sense).

Think of the sound wave vibrating not only upwards and out of the mouth and nose, but the waves also vibrate downwards into the chest cavity. Developing good vocal resonance seems to consist of "tuning" the wave guides of the body by improving the muscle tone (better resonating surface), increasing the size of the wave guides, rounding the shape of the wave guides, and of a strong visualization of what the sound is doing in the resonating cavities.