VOCAL LESSON #2

PHONATION: CREATING THE SOUNDS OF MUSIC

PHONATION is the act of producing vocal sound in either speech or singing. It involves the vocal folds (also called vocal cords), as well as the breathing mechanisms already discussed.

In addition to playing a part in the creation of sounds, the vocal folds help protect the trachea (windpipe) respiratory system from foreign matter. They approximate, or close, when the brain signals them to do so.

Three actions cause the vocal folds to close:

- Swallowing - in which the vocal folds close so that swallowed matter is directed through the esophagus into the stomach, and not through the trachea to the lungs;
- Bearing down - (as in elimination) or lifting heavy objects, in which the vocal folds close in order to build thoracic pressure and provide strength;
- Producing sound - in which the vocal folds close with varying levels of tension to produce the different pitches on which we sing or speak.

The first two of these actions close the vocal folds tightly, creating a high level of tension in the vocal apparatus. The production of sound, on the other hand, closes the vocal folds more loosely. When the vocal folds are closed properly for singing, there is a great degree of freedom and relaxation in the vocal apparatus.

Nerve impulses originating in the abdominal area help the vocal folds to close properly for singing or speech. Thus, the sound must start from the abdominal area as the abdominal muscles lift the air up and out across the vocal folds. The process is fourfold:

- Inhalation, or breathing in;
- Suspension, a brief interlude after inhalation;
- Exhalation, or breathing out and
- Recovery.

Phonation occurs in step three, exhalation, and the start of the sound is called the "attack" or "initiation." In singing, the most important word of a phrase is the first word, which requires a proper initiation.

Phonation must begin with the initiation occurring deep in the breathing apparatus, not in the throat. When phonation begins in the throat it is called a glottal attack, because the sound is created by the shock of the glottis closing. The glottis is the elongated space between the cord-like edges of the vocal folds. The term is sometimes used to describe the structures that surround the space as well.

In order to initiate sound properly in singing, we must leave the vocal folds and pharynx open and relaxed during inhalation, suspension, and the beginning of exhalation, in one continuous process. We use the abdominal and breathing muscles, rather than glottal attack, to begin the sound. As with any other technique for good singing, we must practice using the proper mechanisms for phonation and attacks in order to understand how they feel when they work correctly. With sufficient practice, the seemingly complex techniques become second nature, although they always require focus and hard work.

RESONANCE: CREATING GOOD VOCAL VIBES

RESONANCE is the amplification and enrichment of tones produced by the voice. When we talk about resonance, we're talking about singing with fullness.

Without resonance we produce a "thin" or weak sound.

Three different chambers serve to varying degrees as resonators for the human voice:

1. The pharynx

2. The nasal cavities

3. The mouth

The primary resonator in the human voice is the pharynx (pronounced "fair-inks") the area behind the mouth that extends down into the throat and up into the nasal area. It is divided into three areas.

- Laryngo-pharynx - below the back of the throat and above the larynx. Low range notes are resonated here.

- Naso-pharynx - back of the throat, extending up into the nasal area. Mid range notes are resonated here.

- Oro-pharynx - visible area in back of the throat. High range and falsetto voiced notes are resonated here.

The amount of resonance in the voice is determined by our ability to keep the pharyngeal, mouth and head cavities open and relaxed while we sing. The result is what we often hear referred to as an "open, freely produced tone."

THE SOFT PALATE

The SOFT PALATE is the membranous and muscular extension of the hard palate in the roof of the mouth. It serves as a partition separating the mouth cavity from the nasal cavity. The soft palate should always be raised. If you visualize an arch in the back of your throat, your palate will be raised. When you say "ah" at the doctor's office, your soft palate is probably raised.

Every singer needs to keep the soft palate open and the jaw relaxed.

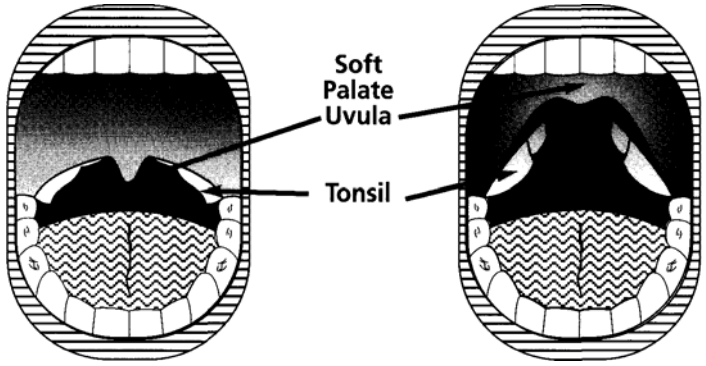

Diagram of the palate in normal position (left) and raised (right):

- When the soft palate is normal, or down, the sound is unpleasant and nasal.

- While looking into a mirror, watch the uvula (the dangling lobe near your tonsils) move up and down. When the uvula is up, the palate is in the proper position for singing.

- The "Pinch Test": To find out if the soft palate is raised while singing vowels, do the pinch test:

Sing a vowel and pinch your nose. If the sound/tone does not change while your nose is pinched shut, your palate is raised. If the sound changes to a very nasal tone, the palate is down. Test yourself often while singing. Learn to feel the difference and consciously think about keeping the palate up. Combined with the inside smile, you'll love the way you sound!

RESONANCE AND IMAGINATION

There is probably no other aspect of singing in which imagination is more important than in learning to resonate well. If you imagine your tone coming through your cheekbones, or through your eyes or out of the top of your head, remarkable changes in vocal resonance can take place. Because the singer hears from the inside, sometimes it is difficult to accurately judge the quality of the sound she is hearing. This is where a skilled teacher with a keen ear is indispensable.

Training the human resonating system to amplify, reinforce, and enrich the vocal tone is not usually accomplished in a short time. It is primarily an activity of memorizing sensations, and much of the early learning involves trial and error. But it is encouraging to know that, once acquired, vocal resonance skills are learned for good. Much like learning to ride a bicycle, once you have learned, you will retain the ability.

Part of achieving resonance is a natural lifting of the soft palate, often referred to as using the "inside smile." The inside smile allows greater space in the resonating cavities of the head, gives warmth to the tone and assists in raising the soft palate.

How to Achieve the "Inside Smile"

- Close the mouth, but not the teeth (feeling an openness in the whole oral cavity) and smile as though you were smiling at someone across the room, a smile you do not wish to be noticed by others. You feel a slight lifting of the cushions under the eyes and a space opening up over the soft palate - you almost feel as though you are going to break into a yawn. The soft palate goes up. You have not pulled it up. Both are extremely important-the cushions under the eyes and the soft palate.

- Smile a "natural" smile, not a grimace, just don't let it show on the outside. At the same time, lift the outside corners of your eyes and let your eyes show the natural warmth of a smile. Grimacing or tightening the cheek muscles and pulling the corners of the mouth wide is incorrect and will create tension in the throat area.

- When you use the "inside smile" there is a feeling of "dome" in the oral cavity; there is also a "yawning up" sensation (never a "yawning down" position which creates pressure on the back of the throat and larynx.)

- The same sensation comes into the soft palate area when one is expressing surprise with a slight gasp and the cushions under the eyes lift.

- When one uses the inside smile, the tongue has a sense of freedom. It feels ready to jump into action in any direction the singer desires. When the inside smile is dropped, the tongue feels as if it has fallen into bed for a bit of rest.