Vocal Hygiene

How to Get The Best Mileage From Your Voice

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Speech and Voice Production

Speech and voice are the result of a complex interplay of physical and emotional events. The first event is in the brain: recognition of motivation (a desire or need) to communicate. The brain formulates ideas and feelings and translates them into language and motor programs that operate speech muscles. Nerve impulses transmit the signals to muscles throughout the speech mechanism.

In the respiratory system, muscles contract to compress air in the lungs, thus forcing it to flow upward through the trachea (windpipe) and larynx (voice box). This action supplies the power source for vocal fold vibration and speech sounds during a spoken phrase. The voice-activating respiratory muscles then relax so breath can enter the lungs for the next phrase.

As the respiratory system is preparing to provide the airflow, the two vocal folds (in the larynx) begin to approximate each other. Once they are sufficiently closed, the airflow from the lungs sets them into vibration. The brain provides continually changing impulses to the muscles operating the vocal folds to allow for adjustments that create pitch and loudness inflections. This is regulated, in part, by information coming into the brain from our ears, since we tend to listen to ourselves as we speak. As long as the vocal folds are close enough to provide some resistance to the breath stream, and relaxed enough to vibrate, tiny puffs of air will be released between the vocal folds as they alternately open and close. The vocal folds vibrate between 100 and 300 times a second during speech! The resulting succession of air pulses creates a sound wave in the vocal tract.

The sound wave passes through the upper vocal tract, including the throat and mouth. Depending on the shape of the throat and mouth cavities, certain aspects of the sound wave will be amplified or suppressed. This phenomenon is known as resonance. Sometimes, we may notice the sensation of resonance when we speak or sing.

Movements of the articulators of speech: the tongue, jaw and lips, alter the sound wave as it passes through the mouth. This contributes to the resonance characteristics, and shapes the flow of air and voice into speech sounds, that is, vowels and consonants.

The brain activity resulting from thoughts and feelings should naturally regulate the vocal system. For example, the amount of air that is being inhaled before speech is gauged by the complexity of the thought and intensity of the emotion being expressed.
Vocal Hygiene: How to Get The Best Mileage From Your Voice

Don’t Abuse Your Voice:

Don’t:
× Clear your throat or cough habitually.

Do:
✓ Sip some water, swallowing slowly.
✓ Yawn to relax your throat.
✓ Hum: concentrate on resonance sensations.

Don’t:
× Yell, cheer, or scream habitually.

Do:
✓ Use non-vocal or visual cues to attract attention.
✓ Find non-vocal ways to discipline children.

Don’t:
× Talk extensively over long distances or outdoors.

Do:
✓ Move closer, so you can be heard without yelling, or use a vocal amplification system.
✓ Learn good vocal projection techniques.

Don’t:
× Talk in noisy situations: over loud music, office equipment, noisy classrooms, in cars, buses, airplanes, etc.

Do:
✓ Reduce background noise when you speak.
✓ Always face people you are speaking with.
✓ Position yourself close to your listeners.
✓ Wait until students/audiences are quiet.
✓ Find non-vocal ways to elicit attention.

Don’t:
× Address large audiences without proper vocal amplification.

Do:
✓ Use a high-quality vocal amplification system for public speaking.
✓ Learn good microphone technique.

Don’t:
× Sing or vocalize beyond your comfortable range.
× Sing high notes you can’t sing quietly.

Do:
✓ Respect your vocal limits.
✓ Seek professional voice training.
✓ Use acoustic monitors during vocal performances.

Don’t:
× Engage in nervous speech habits: throat-clearing, breath-holding, speaking quickly, using insufficient breath, using low and monotone pitch, vocal fillers (“um”, “ah”…)

Do:
✓ Monitor and reduce vocal habits that detract from your presentation.
✓ Learn strategies for effective public speaking.
✓ Prepare your presentation well so you can relax and attend to good vocal production.

Don’t:
× Vocalize during strenuous physical exercise.
× Make repeated aggressive vocal ‘grunts’ while lifting weights, or during martial arts.

Do:
✓ Wait until your breathing system can accommodate relaxed voice production after exercising.
Don’t Misuse Your Voice:

Don’t:

× Talk with a low-pitched monotone voice. Don’t allow your vocal energy to drop so low that the sound becomes rough and gravelly (“glottal fry”).

Do:

✓ Keep your voice powered by breath flow, so the tone carries, varies and rings.
✓ Allow your vocal pitch to vary as you speak.

Don’t:

× Hold your breath as you’re planning what to say. Avoid tense voice onsets (“glottal attacks”).

Do:

✓ Keep your throat relaxed when you speak.
✓ Learn to coordinate voice onset, as in “Hm!”

Don’t:

× Speak beyond a natural breath cycle: avoid squeezing out the last few words of a thought from your throat.

Do:

✓ Speak slowly, pausing at natural phrase boundaries, so your body can replenish air naturally, and without strain.

Don’t:

× Tighten your upper chest, shoulders, neck and throat to breathe in, or to push sound out.

Do:

✓ Allow your body to stay aligned and relaxed so that breathing is natural: your ribcage and abdomen should move freely.

Don’t:

× Clench your teeth, tense your jaw or tongue.

Do:

✓ Keep your upper and lower teeth separated.
✓ Let your jaw move freely during speech.
✓ Learn relaxation exercises for speaking.

Don’t:

× Use unconventional vocal sounds extensively: whispering, growls, squeaks, imitating animal/machine noises.

Do:

✓ Learn techniques that minimize muscle tension and vocal misuse for vocal performance.

Don’t:

× Force your voice to stay in a register beyond its comfortable pitch range when you sing.
× Force your ‘chest voice’ too high, or your ‘head voice’ into your falsetto range.

Do:

✓ Allow registers to change naturally with pitch.
✓ Consult a singing teacher to learn techniques for smooth register transitions.

Maintain A Healthy Lifestyle:

Don’t:

× Demand more of your voice than you would of the rest of your body.

Do:

✓ Allow for several periods of voice rest throughout the day.

Don’t:

× Use your voice extensively when you are sick, or when you feel tired.

Do:

✓ Rest your voice with your body: it’s sick too!
Don’t:
  ✗ Use your voice when it feels strained.

Do:
  ✓ Learn to recognize the first signs of vocal fatigue: hoarseness, tension, dryness.
  ✓ Learn preventive techniques for voice care.

Don’t:
  ✗ Ignore prolonged symptoms of vocal strain: hoarseness, throat pain, fullness, heartburn, or allergies.

Do:
  ✓ Consult your doctor if you experience throat or voice symptoms for more than a few days.

Don’t…
  ✗ Expose your voice to excessive pollution and dehydrating agents: cigarette smoke, chemical fumes, alcohol, caffeine, dry air.
  ✗ SMOKE (Anything!)

Do:
  ✓ Keep the air and your body clean and humid.
  ✓ **Drink 8-10 cups of non-caffeinated, nonalcoholic beverages daily,** more when you exercise or when you drink caffeine or alcohol.
  ✓ Maintain 30% humidity in the air.

Don’t:
  ✗ Slouch or adopt unbalanced postures.

Do:
  ✓ Learn and use good posture and alignment.