

Using effective voice techniques

Introduction

Although most people begin life with good voices, the vocal demands of modern working life and the strong social, health and psychological influences on the human voice often mean that many people develop ineffective and inefficient voice production techniques. Ineffective and inefficient voice production techniques include poor breathing, body posture, vocal fold vibration and voice projection strategies. Teachers who use less than optimal voice production strategies are at increased risk of developing voice disorders, even if they do not engage in the vocal misuse habits outlined in the Minimising Harmful Vocal Habits information sheets. This information sheet outlines some fundamental guidelines for good voice production technique in each of the areas of breathing, posture, vocal fold vibration and voice projection.

A word of caution

The voice production guidelines outlined here are not designed to provide teachers with comprehensive voice production training. The information presented in this information sheet is at a basic level only and is not intended for use by teachers with established voice disorders. In order to learn optimal vocal technique, far more than printed guidelines are required. One-to-one practical voice training lessons with an experienced speech pathologist or voice teacher are the most effective way to ensure that a teacher uses good voice production strategies.

Breathing for voice

Efficient breathing for voice production is characterised by the following features:

- Silent inspiration of air
- Quick inspiration and slow exhalation of air in a rhythmic pattern
- Relaxation and expansion of the lower ribs and abdominal area on inspiration of air
- A focus on the lower part of the body for breathing during speaking
- Little or no movement of the upper chest and shoulders on inspiration of air
- A focus on exhalation of air rather than on inspiration so that inspiration is automatic and relaxed
- Release of breath either simultaneously with or just before the onset of voice - not too early or too late
- Pausing as soon as there are signs that you are about to run out of breath so that inspiration of air will occur automatically for the next phrase
- Regulation of breath supply to coordinate with the length of phrases – take sufficient air in for the amount you wish to say in each utterance

Breathing exercises

1. To focus on the lower part of the body for breathing:

Lie on your back on the floor with your knees up and your neck supported by a cushion.

Put your hands on your lower abdomen and breathe in deeply but easily and feel your lower ribs and abdomen move out against your hands as you breathe in.

Make sure that you breathe in easily so that your abdomen relaxes to expand; do not push your stomach out! As you breathe out, let the air from your lungs out slowly and gently and feel your ribs and abdomen move back down to their resting position. Breathe in and out gently and quietly in this way for one minute.

Stay lying on your back breathing in this way, but now breathe in for a count of two and then hold as “s” sound for as long as possible as you breathe out. Keep the sound steady and don’t let it die away or get louder.

Time the duration of the sound as you breathe out (just count to yourself) and aim for 15-20 seconds.

Keep your hands on your abdomen so that you can still feel the expansion and then deflation of your abdomen as you breathe in and out.

Try some different sounds in the same way – “sh”, “f”, “z”. Then repeat the same exercise but vary the loudness of the sounds in different ways – eg. “sssssSSSSS”, “SSSSsssss”, “sssssSSSSsssss”, “sSsSsSsSsSsSsS”. Feel your abdomen “pumping” as you change the loudness of the sound.

Now repeat all of these exercises while you sit or stand in front of a mirror. Keep your hands on your lower abdomen throughout each exercise and make sure that you do not lift your shoulders or upper chest as you breathe.

2. To breathe in naturally and coordinate breathing with your phrasing:

Breathe out and eliminate as much air as possible from the lungs. Wait for a second or two without consciously trying to breathe in. You will feel yourself naturally inspiring air with a sudden inflow of air. It is not necessary to think of breathing in, as this will happen automatically. Repeat this exercise five to ten times. Now repeat the exercise but say the 'oo' sound as you breathe out. When the air from your lungs is used up, simply pause and allow the lungs to refill naturally. On this exercise, do not produce the sound to the point of creating tension in your chest; simply pause to let the air flow into your lungs before you become tense.

Read the following phrases out loud. As the phrases become longer, notice how you begin to run out of breath. Signs of running out of breath include deterioration in the quality of your voice and a feeling of tightness or discomfort in your chest and throat.

A windy day

A cold, windy day

A cold, wet, windy day in winter

It was a very cold, wet and windy day in winter

It was a very cold, wet and windy day in winter and the wind was blowing

It was a very cold, wet and windy day in winter and the wind was blowing the trees

It was a very cold, wet and windy day in winter and the wind was blowing the trees as she walked

It was a very cold, wet and windy day in winter and the wind was blowing the trees as she walked through the park

It was a very cold, wet and windy day in winter and the wind was blowing the trees as she walked through the park with her dog

It was a very cold, wet and windy day in winter and the wind was blowing the trees as she walked through the park with her dog Max and the puppies

Now read these sentences again, but this time, as soon as you notice that you are about to run out of breath, become tense in the chest or throat, or feel your voice deteriorate, pause to take a breath. Mark the sentences with a ^ in the places where it would make sense to pause to top up with air.

Now read out a passage of about 20 lines from a book or the newspaper. Notice where you begin to show signs of running out of breath and mark the passage with a ^ in the places where it would make sense to pause to top up with air. Remember to pause and let the airflow in naturally, rather than consciously breathing in.

Posture

Any imbalance in body posture can adversely affect the way in which the larynx and vocal folds function to produce voice. This is because poor posture anywhere in the body can lead to excess tension and lack of flexibility in the muscles of breathing and voice. The following are some tips for achieving effective body alignment for voice production:

Do:

- Align the head with your spine (ears over shoulders)
- Keep posture symmetrical
- Balance your weight evenly when standing
- Keep arms relaxed
- Keep the shoulders level and relaxed and in a slightly forward-sloping position
- Keep knee joints loose and legs relaxed
- Keep the feet directed forward and approximately 20 cm apart where possible
- Keep the rib cage relaxed and lifted
- Keep the shoulders relaxed and lowered

Don't:

- Thrust the chin forward or up
- Throw the head back
- Clench the teeth
- Push the tongue against the teeth
- Clench the hands or toes
- Round the shoulders
- Slump the spine
- Lean excessively forwards or sideways
- Tilt the pelvis excessively
- Hold a rigid posture
- Try to keep the spine straight
- Lock the knees
- Keep thigh muscles braced
- Raise or hunch the shoulders
- Narrow the back
- Stand or sit with an asymmetrical posture

Vocal fold vibration

The keys to efficient vocal fold vibration are relaxation of the muscles inside the larynx, using a pitch level that is comfortable for your vocal folds, and effective voice projection. Voice projection guidelines will be outlined in the next section of this Information Sheet. The following guidelines will assist you to keep the laryngeal muscles relaxed and to use a comfortable pitch.

Pitch

Every voice has its own comfortable pitch range. Frequent lowering of pitch to make yourself sound more in control or authoritative, or using a weak, high pitched voice in order to sound less dominant, younger or “sexy” can lead to vocal dysfunction. Similarly, frequent use of the voice at the extremes of your pitch range or beyond your comfortable pitch range in speaking or singing can cause vocal problems. Just like a musical instrument, the voice works most efficiently within its own pitch range.

A simple way to locate your comfortable pitch for speaking is to say “hmhm” as if you are signifying agreement (ie. humming in the same way that you would say “OK” to someone in a carefree way). This sound is likely to be around your comfortable speaking pitch. In addition, you can tell whether or not you are using a comfortable pitch range in speaking or singing by monitoring your voice quality and discomfort in the chest and throat. Any deterioration in the quality of your voice or any feelings of tightness or discomfort in the chest and throat when you use high or low pitches indicates that you have probably exceeded your comfortable range.

Relaxation of the vocal fold muscles

Relaxation of the larynx can be achieved in several different ways:

- Begin to yawn purposely and notice how your throat seems to relax and open wider (but do not finish the yawn – the end of the yawn involves an unwanted increase in tension of your throat and tongue muscles). Try to capture that feeling of relaxed openness when you talk.
- Use a gentle, easy onset to voicing, particularly on words beginning with vowel sounds. One way to encourage this easy onset to voicing is to contrast the feelings in the throat when you say words beginning with “h” and words beginning with vowels. Using the following list, listen and feel the contrast between these two types of words. You should notice that you begin the words starting with “h” in a more relaxed way than you do the words beginning with vowels.

<i>hoe</i>	<i>oh</i>
<i>high</i>	<i>eye</i>
<i>heat</i>	<i>eat</i>
<i>hill</i>	<i>ill</i>
<i>his</i>	<i>is</i>
<i>hat</i>	<i>at</i>
<i>heel</i>	<i>eel</i>
<i>had</i>	<i>add</i>
<i>hail</i>	<i>ale</i>
<i>heart</i>	<i>art</i>
<i>harm</i>	<i>arm</i>
<i>handy</i>	<i>Andy</i>
<i>hedge</i>	<i>edge</i>
<i>hear</i>	<i>ear</i>

Now say the words starting with vowel sounds and try to capture the same feeling of relaxation and easy voice production as you do when saying the words beginning with “h”. You could even imagine that you are saying a tiny “h” before each vowel.

Then say the following phrases using an easy onset to each word. It can be helpful to use an image such as tiptoeing or stepping lightly onto the vowels.

Isadora is an ostrich

I am an Eskimo

Anne is an extrovert

I eat ice cream

Alf is an excellent organiser

Uncle Arthur is amusing

Over and over and over again

Only elephants eat eels

Aunt Alice is especially irritating

- Practicing a “silent giggle” as you speak can also help to relax the larynx and vocal folds. Silently giggle in your throat like laughing at a young child without showing them that you are laughing at them. Alternatively, snigger like a child would to another child who is being reprimanded.

While you giggle silently, breathe in and out gently and notice how quiet your breathing is. Then giggle silently again, keep breathing in and out and say vowel sounds gently (eg. .h”, “ee”, “oo”, “or”). In the same way, keep the posture of the giggle in your throat and say the days of the week, numbers, the months of the year.

Voice projection

The most important key to effective voice projection is to use what is known as “head resonance focus” as you speak, especially when you want the voice to carry above noise or over large distances. To use a head resonance focus you will need to project your voice from your head instead of your throat. As you speak or sing, imagine your voice making the bones and skin of your face and head vibrate as you speak. You can feel this happening when you hum in a singsong way on “m” or “n” sounds for a few seconds.

Place your fingers lightly on the side of your nose as you hum these sounds gently. Feel the vibrations through your fingers and try to make these vibrations stronger as you hum. Try placing the palm of your hand on the top of your head or on your cheekbones as you hum these sounds. Again, feel the vibrations produced by your voice.

Now try humming “m” or “n” in a singsong way for a few seconds without placing your hand on your head. Try to capture the same feeling of head vibration or resonance inside your head as you hum. This internal sensation of skull vibration is the sensation you should try to capture whenever you need to project your voice.

To assist your voice to project even more easily, you will also need to open your mouth widely when you speak. Think of your mouth as your megaphone! You can increase this megaphone effect even further when you need to project your voice by cupping your hands around your mouth. This simple action will transmit your voice more effectively above noise or over large distances.

A note on warming up the voice

To increase the efficiency and endurance of your voice during the teaching day, it is a good idea to warm up your voice prior to extensive speaking or singing. To warm up your speaking voice, five minutes of practicing the breathing, laryngeal relaxation and humming exercises outlined previously may allow your voice to function better for the whole day. If you sing extensively as a teacher, seek advice on warm up routines for the singing voice from a reputable singing teacher.