

# Finding the Key to Resonance

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What is resonance?

Basic enhancing and amplification of our vocal sound as it travels through the cavities/resonators of the vocal instrument.

## TWO KINDS OF VIBRATIONS

CONDUCTIVE – sound beam hits hard surface like BONE/CARTILAGE and vibrations occur.

Example: Sound beam hits hard palate and the hard palate buzzes and vibrates

SYMPATHETIC - sound beam hits hard surface and vibrations move through the hard surface and produces sympathetic vibrations in other places that the air doesn't actually touch.

Example: Singers may feel vibrations in their eye sockets, bridge of the nose, top of the head; the sound beam has not actually touched those areas (around eyes/ forehead, etc) but the vibrations travel up into the skull.

CAVITIES/SPACES help with amplification

Chest (sympathetic vibrations only)

Trachea – connects the lungs and the larynx

Larynx – stays seated and muscles are allowed to work naturally

Pharynx – must be open for a resonant tone to be produced.

Mouth/oral cavity – the soft palate must lift and change, a space between molars must exist, the tongue needs to be tension free and flat, and the lips are off teeth

Nose/nasal cavity/Sinuses – air does touch some of these places

Sound is determined by the shape of the vocal instruments cavities. The singer makes minute adjustments to these cavities as they sing. These adjustments change the resonance of the sound.

Basic sound is also determined by the manner in which the singer uses her various articulation muscles. The choices include:

Tongue – tight/pulled back/high in mouth/flat/behind teeth

Lips – tight/pulled back/relaxed/slight bell/off teeth

Jaw- lots of movement/cemented/"duh" position

Soft palate – no lift/hyper extended/"fog" space/always the same

## EXPLORING VIBRATIONS THAT LEAD TO A RESONANT SOUND

### EXERCISE ONE: The murmur

1. Lips closed, jaw released or unhinged/open feeling/"duh" position
2. Tongue flat in the mouth and relaxed behind lower teeth
3. Inhale through the nose
4. Keeping lips closed, murmur on the exhalation – think "ah" like a sigh. Keep back of mouth well open in the "ah" position
5. Nose and lips should vibrate – feel with hands
6. Add volume – does this encourage more vibration? In the entire head? Chest?
7. Think "b/v" with the back of the mouth really open – direct sound toward entire hard palate.
  - a. Resonance begins with heightened awareness of vibrations in the body.
  - b. Vibrations should always be present, to one degree or another, when we sing.

### EXERCISE TWO: The whispered “ah”

1. Make sure neck is free and not frozen (roll it lightly)
2. Unhinge jaw/”duh” position and open, relaxed lips
3. Inhale through the open mouth and feel cool air on the palate
4. Exhale/breathe out on a whispered “ah”
5. Keep chest lifted/sternum high. Tuck the abdominal muscles up and in to move the air. Do you feel vibrations?
6. Inhale through the open mouth, keeping the jaw unhinged
7. Put pitch to the “ah”
8. Now do you feel vibrations? We need sound, not just air, to feel vibrations

### EXERCISE THREE: The buzz

1. Unhinge jaw/duh position and round lips for an “oo”.
2. Glide from a middle range note down to a low note then back up to a head voice note. Do not go into your “chest” voice, but bring your MIX voice down. Voice should be clear and firm.
3. You should feel a light buzz in the hard palate and in your front teeth.
4. The abdominal muscles support the exhalation. No collapse of the sternum
5. Change exercise to “ee” – this is a great vowel to feel on the hard palate.
6. CHALLENGE – lips usually are too spread on “ee”; to get the best resonant “ee” sound, keep lips tucked/slightly fluted. Soft palate should be in “fog” position.
7. FOG for soft palate lift. Should feel a slight stretch of the soft palate – combined with tucked lips, we get a tall, resonant sound on the “ee”

### EXERCISE FOUR: The hum

1. Lips closed/jaw in “duh” position
2. Hum a mid range note and feel the vibrations in the nose. The vocal sound beam is creating vibrations as the air exits the nose.
3. Direct the hum to the teeth and feel the buzz there. These are sympathetic vibrations
4. Put your hand on top of your head, hum – feel the vibrations on the top of your head? If not, do it again and feel your skull. Where do you feel the vibrations? Are they sympathetic or conductive?
5. Hum a mid range tone and open to “ee”. The vibrations from the hum should continue into the “ee.”

### EXERCISE FIVE: The lip bubble (or tongue trill)

1. Good for learning BREATH SUPPORT and keeping a constant column of air. Good breath support means the singer is supplying enough breath pressure to the vocal folds for sustaining any pitch at any dynamic level. Breath support is a function of the breathing muscles.
2. Lips are lightly together (can hold corners with fingers). Singer supplies just enough breath pressure to put the lips in motion. They flutter.
3. Air must be constant and regulated to keep the lips bubbling. A faulty air pressure/breath support will result in lips starting and stopping.
4. This takes practice but it is an important exercise to establish the function of breathing and breathe support for singers.
5. Bubble pitches 1-5-1. What vibrates?
6. Bubble a note and open to a vowel. Does the vibration remain in the vowel? Change?
7. Bubble, close to a hum, and then sing a vowel or word. Can you feel the resonance in the vowel?
8. Include bubble exercises in warm-ups to reinforce the feeling of the hum/buzz in each vowel sound.

EXERCISE SIX: One singer sings through another singer

1. Pair up.
2. Singer standing behind other singer – mouth close to neck.
3. Singer in front listens.
4. Singer behind sings Mmmm-wee.
5. Singer in front – feels vibrations in her head.
6. Singer in back sings again, singer in front sings along trying to match the vibration feeling.
7. Discuss the feeling this brings to the front singer
8. Reverse.
9. Try all vowels

EXERCISE SEVEN: Get in touch with your feelings – A REVIEW.

1. To sing with resonance, one must understand the concept.
2. One must sing using the same production all the time.
  - a. Relaxed, duh jaw (massage the joint)
  - b. Tongue down (massage under chin; no tension in the tongue)
  - c. Breath support constant and steady (fist on waistline; hands holding the sides of the rib cage)
  - d. Tall LIP alignment (fingers create a box in front of the mouth)
  - e. Sound beam to hard palate (fingers under the nose)
  - f. Soft palate in FOG position (silently fog the palm of the hand)
  - g. Lips fluted/ “urge” position. Corners tucked (massage corners of the mouth/fingers as goalposts)
  - h. Larynx in the seated position (massage larynx/finger on larynx)
3. Sing a line of a song on “ur”
4. Hum a line, then bubble the same line
5. Get in touch with the buzz in the masque, lips, mouth, etc.

WHAT TAKES AWAY RESONANCE?

1. Larynx tight and elevated
2. Tight jaw, mouth spread east/west
3. Tight tongue/tongue up in back and/or in front
4. Tight chin and lips
5. Singing on the soft palate

The singer has many opportunities to make choices. Make the right ones and you will find consistent resonant sound.

A resonant singing tone is the product of:

1. Breath energy
2. Open pharynx and space between back molars
3. Soft palate adjustment
4. Directing the sound beam to the hum/ring spot (hard palate)

Find your spot on the vocal continuum:

Hooty

Constricted/pinched

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