

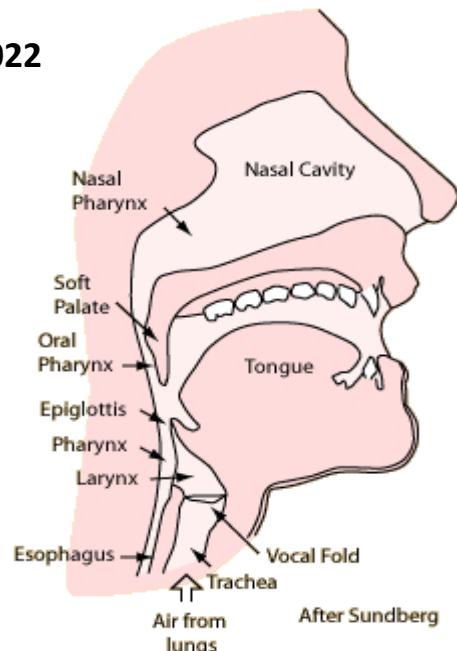
Learn to Sing Programme 2022

WEEK 2 – THE VOCAL MECHANISM

Reminder : stand up straight and relaxed, breathe from the diaphragm

Some anatomy stuff

- The muscles of your abdomen and chest force air from your lungs between the vocal folds causing them to vibrate. The vibrations are modified by the throat, tongue and mouth and amplified by resonant chambers in the chest, throat and head to produce the sound that the audience hears.
- A rising diaphragm, balanced by the muscles in the back and chest, controls the exhalation of air from the lungs so that you don't exhale all in one go. This balancing act ensures that the air leaves the lungs in a continuous and constant flow and produces well supported sound.
- The air passes up the windpipe until it meets the vocal folds. It passes through (across) the vocal folds and up into the mouth. The passage of the air must be unencumbered by anything except the vocal folds themselves. Standing up straight, with the head level, the tongue flat and out of the way, and with an inner smile will make sure that there is no constriction. This results in freely produced sound.
- If the vocal folds are closed tight, no air passes and no sound is made. If the vocal folds are open, all the air passes and the only sound is of the wind rustling in your throat! The vocal folds must be sufficiently closed together so that they offer some resistance to the air which will cause them to vibrate and produce a sound. The feeble sound produced has pitch but not much else. It has to be amplified and this is done in the resonant cavities of the chest, throat and mouth but, most important of all, in the head behind the eyes and nose (the mask). These work much like the body of a violin or guitar. This results in resonant sound.



Top Three Elements (or Triumvirate if you want the big word)

The Holy Grail of choral singing, and especially of close harmony, is a sound that is:

- Well supported
- Freely produced
- Resonant.

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We will be having a look at each one of these concepts in turn.

Well Supported

- Keep the chest expanded – don't allow the shoulders to rise and fall
- Allow the tummy to move in and out. You shouldn't have to force it, it will learn to do it all by itself – you just have to let it!
- Engage the muscles of the lower back to help control the support provided by the diaphragm
- For more support – move something! Anything!

Freely Produced

- Stand up straight!
- Be a chimney – the air goes straight up
- Produce an inner smile to eliminate constrictions in the throat
- Let the tongue lie at rest – flat in the bottom of the mouth with the tip on the lower gum ridge
- Sing 'on the breath' – don't hold the breath and then release it (this is called a 'glottal onset'). Don't start breathing out before you make the sound ('breathy onset'). The sound and the breath should happen at the same time ('simultaneous onset').

Constriction

You'll hear a lot about constriction here. Basically, the voice will sound free if there is a clear, open space above the vocal folds.

What is it? Above the vocal folds there is another set of muscles, called the false folds, which clamp shut to close off access to the lungs as a safety measure in response to stress conditions – to protect the lungs. It is a perfectly natural body response to stress. By closing shut, these false folds constrict the air passage above the vocal folds preventing free production of sound.

When does it happen when singing? Usually it occurs in the hardest parts of the song – for example high or low notes in your range, fast notes, when you're running out of breath, loud or long notes, in performance (when we get an attack of nerves!) – so basically, quite a lot!

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How do I feel it? Try whispering in a sinister fashion – add pressure in your throat and body for emphasis. Not good is it! And after a while, it does hurt – so don't try this for too long!

How can I stop it? Think of something that makes you smile – and hold the inner feeling. What do you notice? You should be feeling an opening or widening in the throat. Allow this to develop into a chuckle. Now try it without making a sound. Now breathe in and out and chew – keep the jaw relaxed, check your posture, walk about (still chewing and silently chuckling) and breathing silently. Now, if no-one has carted you off to the funny farm, you're probably well on the way to the basis of excellent preparation to sing!

So – let's sing and experience it

- Sing an 'aah' – add and remove the pressure ie the constriction – how does it feel?
- Still singing, add in the feel of the silent laughter (from above)
- Sing 'aah' up and down three notes, both with and without the silent laughter
- Try it higher and lower in your vocal range – you'll have to laugh harder at the extremes!

A handy check for constriction

- Can you hear your own breathing? Try again with your fingers in your ears
- Open your throat wider until you hear nothing
- Whenever you're singing a song, monitor the sound of your breathing every so often

So, by working harder, we can make singing sound effort free!!

Resonance – what is it?

- It's a fullness and richness of sound that's exciting to listen to.
- It's the carrying quality of the sound that enables it to be heard at a distance.
- It's the overtone content of the sound.
- It's the quality that enables the sound to blend with other similar voices and produce solid harmonies that support each other.
- It's not singing louder – it's singing richer and fuller.



How do I produce it?

- Practice, practice, and more practice (and there was you hoping there would be an easy answer!).

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- First of all, everything else has to be in place – revise again.
- Then you have to take that sound and let it bounce around a bit, mostly inside the head, up behind the eyes and nose.
- To let it resonate inside the head, you have to make sure that not too much air is going out through the note (otherwise it'll just wash the sound out before anything interesting happens!).
- The ‘hung-ah’ exercise demonstrates the lift of the soft palate that is needed to close off the nasal cavities from the mouth – it’s really important to feel the soft palate moving – practice this a lot!
- Try to imagine 90% air out through the mouth and 10% out through the nose.
- Pinch the nose while you’re singing. If the sound changes dramatically, you have too much air going out through the nose. The sound shouldn’t change much at all.
- Try to imagine lifting the sound from the back of the throat over the top of the mouth to the mask. Lift it up and over.
- Too much air through the mouth will sound like you are shouting. Too much air through the nose will wash away the resonance.
- Establish the sound and then imagine you are filling your mouth with it. Don’t worry about getting the sound out. Worry about creating the right sound inside and then it will get out all by itself.

The lips and teeth: the final frontier!

- The sound is produced by the vocal folds, modified by the throat, tongue and mouth, amplified by the resonant cavities and carried by the breath to the lips where it is consigned to the atmosphere. Everything that needs to be done has been done by the time it gets there. The only thing the lips and teeth can do is get in the way.
- No stress, no strain. Allow the lips to come together in an ‘at rest’ position. This is as wide as your mouth should ever get. Don’t allow any tension in the cheek muscles. Never pull the lips sideways. The cheeks should be a stress free zone. Stress creates constriction.
- The mouth should be open enough to let the sound out without getting in the way. But don’t use muscles to force it open further than is comfortable. These muscles are connected to the throat and will create constriction in the sound.
- The mouth is always TALL never WIDE.

The exercise bit – a reminder of what we’ve done in our session!

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- Visualise the sound – ah, Ah, AH
- Hung – ah, hung – ee etc
- Bite the apple
- Hot potato
- Singing colours – black, grey, sunshine yellow, rich purple, flame red
- Low resonance: think dark! Sob. Holy Moley. Paul Robeson.
- High Resonance – bright, twangy. Happy witch. Nyah nyah.... Quack. Baa lambs.