



Is that a fact?!

- commonly held, but mistaken, ideas about how to sing better -

Factoid: “something which becomes accepted as fact, although it may not be true” (Oxford English Dictionary)

The seductive power of a factoid is that the information *appears* to be reliable and accurate. People assume the truth of a factoid partly because they have heard it repeated so often. The internet has given greater influence to the factoid for a number of reasons. Web pages get written by self-styled experts who do not know fully what they are talking about. Writers copy material from other web pages, or unreliable, unchecked sources. Email is another route for people to pass on their ideas through networks. Who of us hasn't at some point forwarded on an email that has apparently useful, important information, even though we haven't checked its accuracy or source?

When it comes to singing, how many of us cross-check what we have been taught, or what we have read? And where should we go to get the *right* information? Many singers, teachers and choral directors believe they know what they are doing. The ideas they received seem to have worked for them, more or less, and seemed to come from reliable sources (other singers, teachers choral directors etc etc). The problem is that many people don't know that they don't know what they are talking about.

Some of the ideas passed on about singing have no basis either in physiology (anatomical function or the brain science of learning and skill acquisition), acoustics, or psychology. Why do these tips and techniques work? First, not all of them do, we just think they do. Second, if our singing gets better or easier, we assume it is because of the intervention; it might be that we accidentally unknowingly do something else at the same time that actually makes the difference; or the confidence we gain from believing we are doing the right thing makes us relax, and it's the relaxation that improves the singing.

All technique needs to contribute to either a) effective abdominal support in breathing, b) free movement of the larynx where vocal cord vibration and pitch changing takes place, c) optimisation of resonators for vocal tone and clear articulation, or d) a clear, focussed mind partnered with emotional and spiritual intelligence. Here are 7 factoids from the world of singing. Every one of us has probably heard a singer, choral director or singing teacher present at least one, if not all, of these as a fact and piece of good advice. How does each of these factoids enhance or undermine the four elements of singing described at the start of this paragraph? Some readers may dislike the technical descriptions given below, preferring less formal language or more imagery. However, an idea should be able to stand up to cross-examination, and that is not possible unless the explanations are sufficiently detailed.

1. Warm up with scales and tongue twisters

Vocalising before the body is ready is the fastest way to tire the voice, and contribute to singers developing bad habits. If our voice feels stiff or unresponsive, breathy or weak toned, lacking in power, or unable to reach the higher ranges, then clearly our core posture is out of good alignment; probably the jaw and tongue are tight as well. We are not accessing proper abdominal breath support, the larynx (voice box) is pulled out of its symmetrical, free floating position in the neck so that the vibratory mechanism is

compromised, and the resonators are compressed or distorted. Making sounds does not make these problems go away; it simply leads to our putting an unhealthy load onto our vocal cords and associated muscles. Tongue twisters introduce even more tension into face, tongue and jaw, which, in most people, translates into reducing efficiency of the resonators, and stiffening muscles attaching to the larynx. A choir's 'collective' enunciation may sound clearer, but the overall tone and expressive range are severely compromised.

Tip: My golden rule for myself is 'centre the mind and emotions first, warm up and align the body second, and the voice will look after itself'. Singing should be the *last* step in the warm up, not the first.

2. Take a big in-breath

For most people, taking in a big breath inevitably means raising the shoulders, which both constricts ribs and lung capacity, and locks muscles that connect into the neck and larynx. Also, the air we use when singing comes out more slowly than when we are not vocalising at all. If we have more air inside us, then there is also more stale air and carbon dioxide waiting to get out of the body. If that stale air stays in too long, it puts our body under great stress, many muscles stiffen up, and we become anxious.

Tip: Place hands gently on the side of the neck to check that it stays soft when inhaling and singing.

3. Push out / in / up with the diaphragm

If we could do any of these, it would be an extraordinary scientific breakthrough. First, the diaphragm cannot push out or in, as it can only move up or down. Second, it cannot *push* upwards. When we breathe in, the diaphragm (two horizontal dome shaped muscle masses) *contracts downwards*. The vacuum created in the lungs above it draws air in. When our bodies are at rest, and not vocalising, the diaphragm springs back upwards by itself as soon as we stop contracting the muscle for inhalation, like a rubber band when we let go of stretching it, enabling air to leave the body. So, to repeat the point, *the diaphragm cannot push upwards at all*. When we sing, the diaphragm does not rise immediately, but continues to contract downwards, preventing the air from leaving the lungs too quickly, while the abdominal muscles below squeeze the abdomen; this is important for regulating the flow of air and the pressures needed for vocalisation, and extended sounds or phrases.

Tip: To feel how the abdominal muscles engage, exhale through firmly pursed lips or blow vigorously down a straw.

4. 'Spit out' the words / consonants and open your mouth wide

'Spitting words' out can lead to tongue tension and / or jaw tension. Muscles from these areas attach to the vibratory mechanism of the larynx (via the hyoid bone above it), and also stiffen muscles inside the mouth that need to be flexible for shaping the resonating cavity. This means that while the consonants might have percussive force, the resonators become smaller or 'clogged' by the tongue, and the action of the vocal cords is also impaired. We end up with lots of consonants and not much vocal tone or musical line.

Widening the mouth aperture (i.e. at the front) can help the emission of sound in terms of the intensity we perceive, or the tonal colour. However, if we widen our mouths by pushing the mandible (lower part of the jaw) forwards, we tend to tighten the muscles underneath the jaw and inhibit the freedom of the hyoid and larynx. Attempting to spit out the words or consonants, *and* make the mouth wide would bring so much violent activity to the muscles that the resonators and larynx would be sent into chaos.

Tip: To correct the jaw pushing forwards, practise short melodies on a vowel sound with the bottom lip curled gently back over the bottom teeth. Most vowels and consonants can be enunciated clearly with very little or no jaw movement (otherwise ventriloquists would be out of a job!).

5. Smiling stops you singing flat

The pitch of a note is governed by the speed at which the vocal cords vibrate, which depends on their length, thickness and degree of tension. It is possible *in a miniscule way* to influence the internal actions of the larynx (and therefore vocal cords) by massive tension on the external muscles attaching to it. However, such excessive tensions would hamper the larynx and resonators in so many other ways, the effort would not be worth it. For some people smiling is associated with raising the soft palate, which can help increase the number and intensity of higher harmonics or 'ring' in the sound (enhancing what is referred to in acoustics as the 'singer's formant'), which can lead some people to believe mistakenly that the pitch itself has altered. My best guess is that producing a manic and desperate grin (or raising the eyebrows) is more about the psychology of trying to lift the pitch than gaining any actual mechanical or acoustic advantage for the voice.

Tip: Good tuning is almost always a natural outcome of good voice production, and is not a 'listening' issue. Tuning therefore improves the more we understand and master our vocal instrument.

6. Sing quietly (or whisper) to save your voice

To be able to sing quietly is a great skill to have. We can all do it to a certain extent, but not necessarily well. Many find their voices wobbling, coming and going, the air running out, or the sound being breathy, weak, or lacking a clear 'core'. Tongue, jaw, neck or shoulders are tightened, the vocal cords are 'pressed' against each other, the breath support is diminished. Singing quietly or 'marking' before a performance can therefore be counter-productive, as we simply tire the voice out anyway, or become anxious through feeling our voice getting worse. Whispering often has similar characteristics of inefficient vocal production.

Tip: Saving the voice is better achieved by a) a few hours silence, b) intelligent vocal practice and gentle rehabilitation exercises, c) meditation and centring techniques, d) singing out, but with good technique and self awareness.

7. Throat lozenges help your voice

If our throat is sore, or the sound of our voice is not 'clean' or clear, we need to know why. Are the vocal cords swollen through misuse or infection? Are the vocal cords dry, or covered with sticky or excessive mucus? Are the tonsils swollen? Is the soft palate swollen from infection? Throat lozenges can mask sensation; it's not a good idea for a singer to prevent themselves feeling what is going on internally, as they can do further damage and not even know it. Some pills and potions inhibit mucus production, drying us out – not good news, given that the vocal cords must always retain a thin mucosal layer.

Tip: If the cords are swollen, *don't sing*. Give them time to recover. Hydrate and avoid steps that risk drying out the cords or preventing them from retaining their mucosal layer. Check whether the throat discomfort arises from vocally abusive techniques or lifestyle. Don't mask sensation – sensation is our friend!

Trust me, I'm a ... what?

The singing world is full of mis-information. I don't think that any of it is spread with any malicious intent. Nevertheless harm is done. Time, energy and money are wasted in trying to put into practice techniques that do nothing to help free, expressive, healthy

vocalisation. And in many cases, harm is done by people stressing their vocal cords, and developing a neurosis and lack of confidence in their singing because they find it difficult to sing even though they are faithfully doing what they have been told. They assume there is something wrong with them, rather than with the information. Being an excellent singer doesn't guarantee that our conceptual model of the voice is correct; some singers are good despite their conceptual model. And some singers are good *despite* their teachers!

So, please don't take my word for any of this. What I have written here does not constitute advice. Readers of this article are wholly and solely responsible for their own decisions, actions, and all outcomes, loss or damage resulting from the use of any of these ideas. Perhaps I have unwittingly simply produced more factoids. Each reader will have to check for themselves and make up their own mind. After all, I don't know what I don't know. And please, if you think I've got it wrong, let me know!