BRINGING BREATHING SCIENCE INTO THE VOICE STUDIO

Sally Collyer

IN SEARCH OF GOOD BREATHING

Good breathing is fundamental to good singing.
But what is good breathing? And how do teachers teach it?
These are the tough questions that breathing science is tackling, and the results are challenging some of our biggest assumptions.

"There's one right way to breathe."
Trained singers have **unique breathing behaviours**, as personal as fingerprints, even when:

- they learn from the same teacher
- they follow the same instruction
- they *think* they're all doing the same thing!

"Everything is determined by training."
Actually, singers can't directly control all of their breathing, even when they think they can. So some aspects might not change with training.

"You'll sound better when you breathe my way."
Only if the singer already basically breathes that way. If it disrupts the singer's natural pattern, it won't sound better at all.

For a copy of this poster or the accompanying handout or if you would like further information, please contact:
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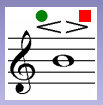
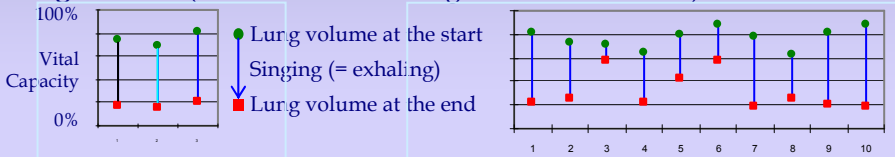
References
Collyer S, Kenny DT, Archer M. (In press) The effect of abdominal kinematic directives on respiratory behaviour in female classical singing. *Logopedics Phoniatrics Vocology*.
Collyer S, Thorpe CW, Callaghan J, Davis PJ. (2008). The influence of fundamental frequency and sound pressure level range on breathing patterns in female classical singing. *Journal of Speech, Language and Hearing Research* 51:692-708.

PERFECTING THE INDIVIDUAL

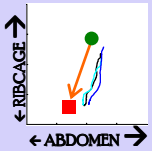
One of the most perplexing discoveries is that a well trained singer has very consistent breathing behaviour, but each singer is unique.
Consider 10 highly trained female singers and the *messa di voce* ...



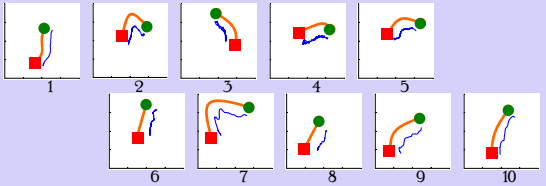
Lung volumes (how much air the singer takes in and uses)



Chest-wall kinematics (how the singer moves the air)



EACH SINGER IS VERY CONSISTENT



BUT THE 10 SINGERS ARE VERY DIFFERENT

Where do we go from here? First, we need to find out what determines a singer's breathing behaviour. Then we need to determine whether training alters this and, if so, how. As cheap sensor technologies become available, prepare for an explosion of information. **Breathing science ... coming soon to a studio near you!**