

## Breathing for singing

We all know how to breathe, but there are several different ways of breathing. Breathing for singing is just one of those ways.

Most of the time we do not have to think about how to breathe. It is a predominantly unconscious activity, but the pattern does alter according to various conditions e.g. with physical exertion.

When you are breathing 'at rest' i.e. just sitting quietly and not doing anything, you breathe in and out about 17 times per minute. For each breath, 40% of the time is spent breathing in (inhaling), 60% breathing out (exhaling). There is a pause between exhaling and inhaling.

When you are speaking or singing there is a big difference – 10% inhale, 90% exhale.

Breathing involves our lungs, diaphragm, ribs and the muscles between the ribs (intercostals). The lungs have no power themselves to move air in and out. The lower surfaces of the lungs are attached to the diaphragm. The diaphragm is a powerful parachute shaped muscle. It separates the chest cavity from the abdomen. The ribs are attached to the spine and the breastbone with flexible cartilage.

When the diaphragm contracts, it flattens and the centre moves downwards. This also pulls the lungs downwards and air is pulled into them. At the same time the rib muscles move the ribs upwards and outwards, making more space for the lungs to expand. When the diaphragm relaxes, it moves upwards, the ribs move downwards and inwards and air is pushed out of the lungs. It is useful to remember that though the diaphragm is very powerful, there are no sensory nerve endings in it, so we cannot feel directly what it is doing. But we can see and feel the effect of the movement. When we are breathing at rest, all the movements are fairly small. When we are breathing for singing, we need to enlarge and control those movements.

It may help to think about a concertina held vertically. The top buttons stay absolutely still while the lower buttons drop, so pulling air into the bellows. Then when the lower buttons rise, air is pushed out of the bellows. Of course, we only sing when air is being pushed out of our lungs. (Though it is possible to sing on inhaled air – it doesn't sound very good.)

Here are a couple of websites where you can see helpful images. (last checked Nov 2007)  
[http://en.wikipedia.org/wiki/Respiratory\\_system](http://en.wikipedia.org/wiki/Respiratory_system)  
[http://library.thinkquest.org/28000/media/lungs/l\\_respiration-dia-ms.gif](http://library.thinkquest.org/28000/media/lungs/l_respiration-dia-ms.gif)

When singing we need to increase our **capacity** for inhaled air, and be able to **control** the flow of exhaled air. This will involve exercises aimed at enabling the diaphragm and intercostals muscles to work more efficiently and effectively.

There are many breathing exercises, but we really do need to experience them practically rather than read about them. There are some good tapes and CDs available, though it is best to attend practical sessions with skilled teachers who can see exactly what each individual is doing and see what they need to develop next.

Good breathing is very important for singers. It is the power source behind the voice and needs to be constantly practised, alongside other things such as posture, relaxation, movement and voice, in order for our singing to be the best it can be.