

About breathing and playing wind-instruments.

Often enough I hear or read the comment “Why make a problem of breathing? It is just to inhale and blow! There is nothing more to it than that!”

When the breathing issue is as easy as that everything is ok. Sometimes that is the case. This is a very good way to think of breathing as we do have instinctive breathing reflexes. (On the other hand, controlling sound by inhaling air and letting it out slowly and evenly is maybe not the most natural of people’s everyday actions.)

Funny enough these comments often come from players who could do with expanding their breathing capacity some, but maybe they are tired to hear talk about breathing.

There may be lots of reasons for that.

One reason might be that the talk they heard was not making sense.

After many years of teaching brass playing I find more problems with the student’s way of breathing than anything else.

The reasons for those problems are different.

Sometimes the problem is a bad body posture, possibly coming from a very inactive way of moving the body altogether.

Sometimes the reason is bad or misunderstood advice.

In the 50s it was common to tell students to play with a firm abdomen, firm in the sense of hard and immovable.

A similar effect is when the student is in a state of anxiety.

The body has lots of automatic reactions that are either very hard or sometimes impossible to avoid.

Anxiety, nervousness and fear can make the muscles of inhalation tense.

If both the muscles of inhalation and exhalation are tense, then they are working against each other. The muscles may then work hard, but the result is poor.

It is possible to play a wind instrument in the tense body type, actually some players have been playing very good this way. But it is a taxing way to play, the good players did not succeed because of this way of blowing, but in spite of this tense way of working.

I did play professionally that way for years, and like two of my former teachers and some of my colleagues I did have a hernia surgery. My physician suggested that the hernia had something with my faulty breathing technique to do.

From 1970 I therefore started to read about breathing in medical literature, worked together with a MD who specialized on the human muscles and tissues, visited many seminars by MD:s and professors of acoustics in musical instruments and singing.

Today there are many teachers who are teaching breathing in another way than how it was done in the 50s.

There is a good reason for it, the old school was not really harmless, it worked for many (it worked for me, right?) but it was causing many misunderstandings and unnecessary tensions in the body.

Some of the myths:

“Fill the bottom first.”

The air is not some kind of liquid that because of its weight fills a glass from the bottom as when pouring water into it.

Since the air is a gas it will fill any void there is, and consequently there is no need to push out the stomach before you let the air fill your chest.

Inhale and let the body expand. Keep your chest high.

“Expand your diaphragm”

A misunderstanding of what the diaphragm does. You do not have to worry about the diaphragm at all unless you have a weird idea of what it is.

The diaphragm works on your inhalation by itself. You do not have to work to control it. Actually, if you try not to breathe for a long time, your diaphragm will control the inhalation against your will; it takes control stronger than your mind.

The diaphragm is a layer of tissue and muscles connected to the bottom of your lungs.

“Breathe from the abdomen”

A common reason for a shallow inhalation is the thought of breathing “from the abdomen”.

Many students have tried to use the abdomen muscles to inhale.

The abdomen muscles can not help the inhalation in any other way than to be as relaxed as possible.

The diaphragm work in the inhalation process is to pull the bottom of the lungs downwards. That will push the intestines down towards the belly area. If the abdomen muscles are tense this action will be impossible: the belly will be hardened, the inhalation shallow.

“Don’t lift you chest, only expand your belly”

On the contrary, keep your chest high; let the inhalation make the expansion to happen rather than to expand the belly to take in air.

“Open your throat”

Well, this is not really wrong but often understood as if you can open your throat by tensing some muscles. However, you can make your throat as open as possible simply by relaxing.

“Keep your belly tense/hard”

This is a very bad advice coming from a totally misunderstood idea of how the body works.

When the belly is tense/hard it is most often because both the diaphragm and abdomen muscles are working as antagonists against each other: the diaphragm is pushing the intestines down in the same moment as the abdomen muscles are pushing the intestines up.

In an active blowing from the abdomen the bottom of the lungs are lifted by the intestines that are pushed upwards by the active abdomen muscles.

That should not need much more thoughts than to blow at a candle or an object: simply an active and even exhalation. The body does know how to blow, just do it with some control.

“Push from the diaphragm”

This is actually hilarious, you could just as well say push from the knees (maybe that is a better thought?) or from the hypotenuses. The last one could work if the student does not know what the hypotenuses is, as pushing from the diaphragm can work (has been working) if the student does not know what the diaphragm is. I have met students that found pictures of the muscles in the body, and found the diaphragm and worked on trying to push from it. But since the diaphragm can only push downwards (as it does when you inhale) and the abdomen muscles can only push upwards (as when you exhale) the result will be a hard immovable belly, plagued by muscles pushing up and down simultaneously.

Summary:

Inhalation is done by flexing the diaphragm and the external intercostals (muscles that can raise the chest)

Exhalation is done by flexing the abdomen muscles and the internal intercostals (muscles that lower the ribcage). Many teachers recommend to keep the chest high even under the exhalation and let the abdomen muscles do the most of the blowing work, as it is better for control and also for a faster inhalation when needed.

Does it look if there are too many things to control?

Do not worry. The good part in this is: you can let the body control how to breathe.

You control when to breathe, when to inhale and exhale, the intensity and speed of the blow.

Your body knows how to inhale and exhale, you may have to work on breathing exercises to remind your body if you have not been doing any deep breathing for many years.

The problems are most often a matter of misunderstanding.

When teachers started to write books about how to play, they wanted the books to have an air of science. The trouble was often, as with breathing, they did not know much about the matter. They tried to check up on things, but actually made things worse.

Many misunderstandings did work fine anyway, as the students got a hunch on what was needed and did have a musical concept that they tried to reach.

Actually, that is one of the best advices ever “if you want to sound better, conceive better!”

As the years went by, some musicians at last found out that the diaphragm was not the same as the abdomen. A very famous teacher then tried to teach his students to flex the diaphragm upwards, as he thought that must be the way it worked. But the diaphragm cannot push upwards, only downwards! He eventually discovered this and has changed his way of teaching since; he is now one of the people working to kill the old myths about “diaphragm support”, as there is no such thing as “diaphragm support” in reality.

I could never imagine that these myths could be so hard to kill as I recently found out,

That is why I wrote this article to have on the WELA home page.

If you have any questions or comments you are welcome to

let me know. You find my mail address

somewhere on this site.

Svenne.

A simple breathing exercise.

When doing this exercise you do not have to think about what you do with your diaphragm, intercostals or abdomen muscles.

You do not have to know the proper name of the muscles, or where in the body they are located.

Your body knows what muscles to use for inhalation and exhalation, but your body might not be used to work those muscles on a given time, or to inhale when there is no need for oxygen.

Stand or sit in a straight position, keep the body from the waist up to the head as tall as possible.

Lower your jaw until you have room for a hotdog between the teeth, keep it like that.

Form your lips to a small "o" like for whistling, keep them like that.

While keeping time, 60 quarter notes per minute, inhale for two 4/4 bars, exhale for two bars.

Keep doing it for 30 seconds, stop if you get dizzy, relax with no breathing until your body decides you need air again, then you will inhale automatically.

If you did not get dizzy, you can do it more deeply, possibly for a longer time.

You can change to one bar inhalation and three bars of exhalation after you get used to the exercise, this way the inhalation has to be faster to match the exhalation.

Let the lips do some resistance to the air, try to not let the air movement stop, the inhalation is continuing until the exhalation begins and vice versa.

This is one of many ways to train the body to use the inhalation and exhalation muscles on a given moment ordered from the mind.

Your mind does not think of the muscles, but moving air.

We are actually back to the beginning, "Just inhale and blow, it is as simple as that".

But we have to get used to do that at the right time and with a proper volume.