

# The Two-Phase Breath

Randy Adams

Excerpted with permission from “Fundamentals of Trumpet Tone Production”

## Breathing

The first and last physical efforts of our natural lives involve breathing. Even the book of Genesis mentions the fact that Man didn't become a living soul until breath was breathed into him. It should be so natural! And it is. However, playing a brass instrument is anything but natural! The very idea that we can take the sound of a Bronx cheer, send it through a length of plumbing and wind up with music is something that will puzzle and amuse me the rest of my life. And because playing a brass instrument is a bit unnatural (to say the least!), it is necessary for the brass player to understand just how respiration works and then to develop this natural bodily function to its fullest potential as a specialized skill. The breath is where the sound of any wind instrument begins. Taking air in and moving it back out efficiently and effectively for making music requires a heightened level of understanding of this natural process, and that's where the “Two-Phase Breath” comes in.

During a large breath the whole torso expands—front-to-back, top-to-bottom, side-to-side. It is helpful to organize the expansion of the torso into two primary sections or phases. *Phase One* encompasses the lower portions

of the chest cavity and, most importantly, the belly or waist. This is the area of greatest expansion drawing in easily 2/3 - 3/4 of a full capacity breath, and it is the easiest, most natural area to fill with air. *Phase Two* encompasses the upper chest and is a little more difficult to fill, because the small muscles between the ribs, the intercostals, must be stretched and the rib cage expanded. Although this area of the body holds relatively little air and is ill-equipped for effective air support, it is essential that expansion occurs here in order to provide room for optimum efficiency of the moving air column. A full and expanded upper chest opens up the air passages and enlarges the air column for a more powerful flow without the use of excess muscle force. In order to facilitate this phenomenon a full breath must be taken from bottom to

top, and the air must be moved out also from bottom to top using the lowest possible muscles of the lower abdomen (about where your belt buckle is) without collapsing the upper chest. A simple example

**Understanding and developing an efficient “Two Phase Breath,” learning to keep the air column large and free all the way up, and keeping the body balanced and free of excess tension can work together to enhance a warm, resonant tone production, improve note accuracy, increase endurance and maintain good intonation.**

of this, borrowed from Louis Maggio, is to think of a tube of toothpaste being rolled up from the bottom in order to get all of the product out. If the tube is squeezed from the middle the sides soon touch and no more toothpaste can flow—even while more remains in the tube. The only way to keep the flow strong and full to the very end is to roll up from the bottom. Another way to think of this is to imagine a wedge—small at the bottom and large at the top. After taking a full breath, wedge in the lower abdomen, and allow the chest to billow up or inflate all the way up to the oral cavity. This is a bit of an exaggeration, but the idea here is to make the air column as large as possible all the way up to the lips while it is being moved along

## The Two-Phase Breath

by some of the largest and strongest muscles in the body, the lower abdominals.

The benefits of a large air column can be realized in many areas of playing, both physical and aural. Sound, as our ears perceive it, is simply moving air. Vibrations or waves move the molecules of air through the space around us and into our ears where the waves are converted into electrical impulses for our brains to interpret as various sounds. A large, dense, active air column translates into a large, dense and active sound. If the air column is compressed unnecessarily by a collapsed chest, a constricted throat, a tongue placement that is too high, teeth that are too close together, or lips that are too tight, the airflow will decrease in size and energy thus reducing both the amount and the quality of sound. A large, active air column also makes the embouchure work much more efficiently allowing you to use less mouthpiece pressure and maintain a more relaxed setting which will in turn enhance the vibrations of the lips even further. A domino effect is set up, for better or worse, all based on the way you move the air in and out of your body.

Here is a simple exercise to help develop an awareness of the two phases of expansion and support from bottom to top: Sitting or standing with good posture, put one hand on your lower belly (not your stomach — that's too high) between your navel and your belt buckle, and put your other hand on your sternum. Breathe deeply with your diaphragm extending downward against your stomach and other organs. Allow your waist to expand (or "Get fat" as Arnold Jacobs would say!), and monitor this activity with the hand you have placed there on your belly. When this phase is complete you will feel full of air. This is **Phase One**. Next, fill your upper chest cavity, piling more air in on top of the big breath you just took. This is **Phase Two**. Monitor the movement of your chest with the hand you have placed on your sternum. Since the lungs actually extend from bottom

of the rib cage to the very top, you should feel the coolness of the air in your upper chest and behind your collarbones that have just moved outward and slightly upward. *IMPORTANT: Do not use shoulder muscles to move the collarbones or raise the shoulders!* It is the action of the air expanding the chest that will create this movement. We expand as a *result* of the inflow of air. Once you are full of air, both phases, bottom and top, blow the air across the room using the muscles below the navel to move the air up and out without collapsing the chest until the very end of the breath supply. Monitor this activity with the hands you have placed on your belly and sternum. One caution: although it is helpful to think of the inhale as occurring in two primary "phases" or areas of the torso, the breath is really a single event with air flowing smoothly and efficiently into the body, filling the bottom of the bag first and then progressively filling up to the top, then keeping the top of the bag open for unhindered flow while the large, flexible muscles in the waist area move the air up and out into the room. Practice this exercise regularly. It is helpful to begin with some sort of breathing exercise daily before you make your first sounds. This exercise can also be done while lying down on the floor on your back with your knees bent and feet flat on the floor. Put both hands on your belly with the ends of your middle fingers touching. As you inhale monitor the expansion of your torso with your hands and mentally scan your body making sure that you are not tensing any muscles that are not directly involved in the respiration process — larynx, shoulders, thighs, arms, etc.

Another simple exercise that can help encourage this full, two-phase expansion is to inhale and exhale through the back of a trumpet mouthpiece in time with a metronome. Set your Metronome to 60 BPM (beats per minute). Put the small end, or shank, of the mouthpiece into your mouth with the end protruding in past your teeth. Starting with empty lungs, inhale for eight counts, pulling the air in as

## The Two-Phase Breath

quickly as possible. You should feel this working your diaphragm and intercostals as you pull against the resistance of the small throat of the mouthpiece filling up the lungs from bottom to top. If you are pulling the air in correctly you should be full of air by about the fifth or sixth count. For the remaining few beats continue to pile air in on top of what you have already taken in (it's not very comfortable at this point!) being careful to keep your throat open. When the eight counts are up, blow the air out through the mouthpiece just as you took it in — as quickly as possible, trying to get rid of all the air before the eight counts are up and then continuing to blow as if trying to collapse the lungs until the end of the count. Then, immediately turn the air around and inhale again the same way. Perform this exercise three or four times, and then remove the mouthpiece and take a nice deep relaxed breath exhaling in a sigh. This breath should feel substantially better and more efficient than the breathing you were doing before the exercise. While this mouthpiece breathing exercise is really a gross exaggeration (we should never perform with our lungs either this full or this empty), it is very helpful in expanding your limits and “warming up” or “lubricating” the respiratory tract for optimum performance. This is also a good exercise to begin the day with, especially if you are feeling tight or stiff in the chest.

### A Word About Posture

In order to facilitate effective movement of air for optimum tone quality, range and endurance, careful attention must be paid to posture, balance and tension. Problems with flexibility and accuracy can also frequently be corrected by adjusting posture and easing unnecessary muscle tension. Correct posture is more a matter of balance than of sitting or standing erect and rigid. Flexibility and lack of tension are primary goals. A phrase Arnold Jacobs often used was to “stand while sitting.” Keep your

upper body in the same position you would have while walking or standing. This will line up the spine, head and arms in such a way that there should be good balance and a comfortable feel. Some of the postural positions we commonly use such as slouching, slumping the shoulders, leaning back in a chair, crossing our feet and legs, tilting the head too far forward or backward, etc. actually create the need for more tension in order to hold the body in place. Excess tension deadens your tone quality, sapping resonance and projection from the sound and forcing you to work much harder than you need to. Tension in the arms, shoulders, hands, back, stomach, jaw, throat, face, and even your eyebrows can cause problems such as bad intonation (playing sharp), “cracked” notes, dull or thin sound, poor endurance, and general discomfort while playing. And excess tension in any part of your body tends to spread to other areas as well until you find yourself tied up in a knot. For instance, excess tension in the stomach area will usually be countered by increased tension in the throat. Try tensing your stomach now. Feel the tension in your throat start to increase as a result. You may even notice your shoulders and pectorals begin to tighten just a little, and as they do your biceps will also constrict slightly. Now try talking. Notice the small, dull quality of your voice. If you take a deep breath, relax your stomach muscles and shoulders and arms and speak again you should hear and feel a different, clearer, freer, deeper quality to your voice. This same phenomenon can be observed in your playing. An excellent resource for learning more about posture and balance is the *Alexander Technique*. There are many books on this method developed in the late 1800's by F. Matthias Alexander who was himself a theater performer who overcame severe vocal problems by correcting faulty posture and eliminating excess tension.

Understanding and developing an efficient “Two Phase Breath” (two phases, but one smooth

## The Two-Phase Breath

movement), learning to keep the air column large and free all the way up (nothing getting in the way of the moving air until it reaches the vibrating lips), and keeping the body balanced and free of excess tension — all these skills can work together to enhance a warm, resonant tone production, improve note accuracy, increase endurance and maintain good intonation. When these skills are in place and operating correctly it becomes quite easy to play a brass instrument (relatively speaking). “It’s easy to play right; it’s hard to play wrong.” When we are using the air efficiently and staying relaxed and balanced, the trumpet (or horn or tuba) almost seems to play itself — everything works easily. When we are tense and constricted and not breathing effectively, everything becomes difficult; nothing seems to work. Stiff chops, rough articulation, fuzzy sound, cracked notes, poor intonation (and the list goes on!) — all

these maladies can be quickly and substantially improved by first addressing the way we breathe. Learn to develop the natural respiratory function of the body as a specialized skill in order to facilitate the somewhat unnatural (and highly specialized) skill of playing a brass instrument more naturally.

*Randy Adams is Assistant Professor of Trumpet at Sam Houston State University and has also taught at Houston Baptist University and San Jacinto College. He is a former member of the Houston Symphony Orchestra (2001-2002 season) and is currently a member of the Houston Grand Opera Orchestra, Theatre Under the Stars Orchestra and the Sam Houston State University Brass Quintet. Mr. Adams also performs with the Houston Ballet Orchestra and makes appearances as guest trumpet soloist and clinician. During the summer months he tours Europe, performing virtuoso cornet solos, European folk music, and a variety of other musical styles including classical, jazz, pop, and country with Alpenfest, with whom he has appeared on Minnesota Public Radio’s Prairie Home Companion Show. Randy plays guitar each week at St. Cuthbert Episcopal Church in Houston, Texas, and he has recorded two solo guitar CD’s.*