

# THE BREATHINGBOOK

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## *Preface*

Imagine for a moment what your favorite brass players look like when they perform on their instruments. They look relaxed. They look tensionless. Everything appears easy. The music flows out of the performer gracefully and reaches the listener in a way that leaves them changed forever by the beauty of the song. The performer is free of any physical bonds and can concentrate on delivering the message of the music.

As a young developing brass player I remember feeling inundated with phrases and tips about what to do with my body when I was playing my instrument, particularly as it related to breathing. I remember phrases like “Breathe low” and “Breathe from the bottom”, etc. Occasionally these types of instructions made sense to me and helped briefly. More often though, phrases like these confused me. Often I felt as though the intent of the instructional phrase was working against what my body wanted to do naturally. When this was the case, playing was hard. It was filled with tension and my sound reflected that tension. In these moments, there was no joy associated with playing my instrument.

Indeed, for many years, the standard view of the function of the body during breathing was based on how the body looked from the outside. This book views the body from the inside—showing pictures of the structures of the body related to breathing and how the proper function of these structures can work to help us breathe freely.

More importantly—beyond Mr. Vining's clear and concise explanations of these breathing structures—he has developed specific playing activities for each breathing structure area that help us experience proper breathing function. These activities simply and effectively give us a pathway to experience breathing (and thereby performing) in a free and easy way. Great breathing leads to great music on a wind instrument. It is here we find joyful music making!!

This book is a fantastic guide for any brass player to understand their body's respiratory function. Further, the information presented here offers healthy and safe recommendations for playing development. Bravo, David Vining, for bringing brass pedagogy the information necessary to free our breathing and clear the obstacles which stand in the way of wonderful music making!

All the best,  
Patrick Sheridan  
Co-Author, *The Breathing Gym*

## 6. *The Truth About the Diaphragm*

The diaphragm is a large dome-shaped structure which separates the thoracic cavity above from the abdominal cavity below. Your lungs rest on top of your diaphragm and, of course, the air goes in your lungs when you breathe. Air does not go below your diaphragm; in fact, if you believe air goes below your diaphragm, you are creating tension when you breathe. When you inhale, air behaves like air in your body, not like water. Air goes to all parts of the lungs immediately and equally. Air does not go to the bottom of the lungs first, as though filling up a glass of water. Trying to move air as if it were water to breathe creates tension and disrupts the natural movement of breathing.

Your diaphragm does not have many sensory receptors so you can't directly feel it move inside your body. What you can feel are the primary motion of rib movement and the secondary motion of abdominal expansion.

Your diaphragm and your external intercostals are the primary muscles of inspiration. As you inhale, the diaphragm contracts downward and the external intercostals swing the ribs up and out. The two movements depend upon one another because the diaphragm is attached to the ribs around the sides and the costal cartilage and the sternum in front.

The diaphragm contracts with every inhalation and relaxes with every exhalation. It is mainly muscle, although there is a circle of tendon in the middle called the central tendon (the white part in the image.) The muscle of the diaphragm contracts against the tendon, pulling it downward as you inhale. The phrase "breathe from the diaphragm" is confusing because it implies that there is some other way to breathe. It's like saying "smell with your nose"—there is no other way to do it!

The entire circumference of the diaphragm is connected all around to the inside of the sternum, the costal cartilage, the lowest ribs and the spine. Although you cannot touch the diaphragm, you can trace its position in the body. Try it now: looking at the illustration, trace the circumference of the diaphragm with your fingertips from the bottom of the sternum all the way around to your back. As you do so, bear in mind that the diaphragm domes well above the ribs that you are touching.

As you inhale, your diaphragm contracts, dragging the base of the lungs downward and increasing the circumference of the thoracic cavity. At the same time, the diaphragm pushes down hard on the contents of the abdominal cavity, squishing it out and down. This is where abdominal expansion comes from; it is a secondary motion which results from the diaphragm's downward motion. Pushing out your belly in an attempt to inhale does nothing more than create tension, so don't do it!

Since the diaphragm, ribs, costal cartilage and spine are connected, their motions depend upon one another. As the diaphragm makes its descent, the ribs swing up and out and the spine gathers. As the diaphragm makes its ascent, the ribs swing back down and in and the spine lengthens. All the motions happen together, not separated from one another. When you allow the motions to occur naturally, your breathing is organic and efficient, and your tone is resonant and free of tension.



