

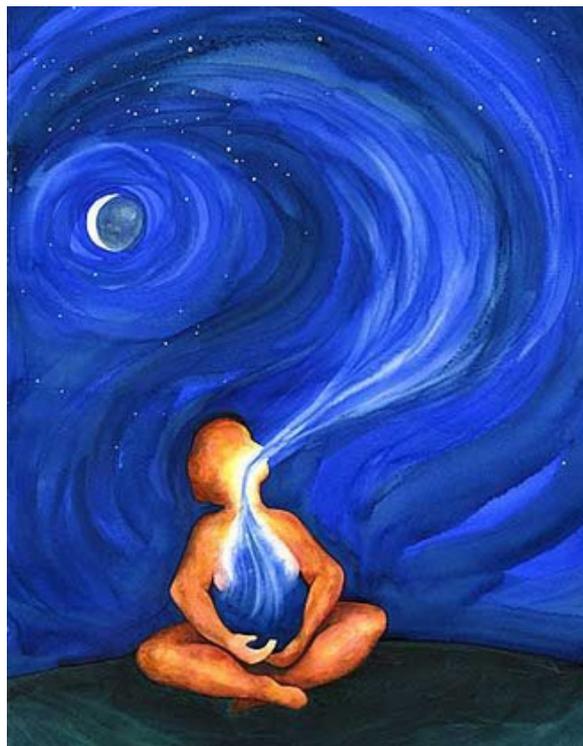


EMBODIED HEALING ARTS

# Week 1 Fundamentals: Exploring the basic Anatomy of Breath

The following pages give you an overview of the most important elements of breath for the first part of our training.

As you absorb this material and continue weaving it with the body practices, you gain a body-informed understanding of breath, allowing you to guide women in your Integrative Breathflow® sessions more expertly, rooted in knowledge of how our breath interacts with different body parts & functions we may wish to expand, liberate or improve.

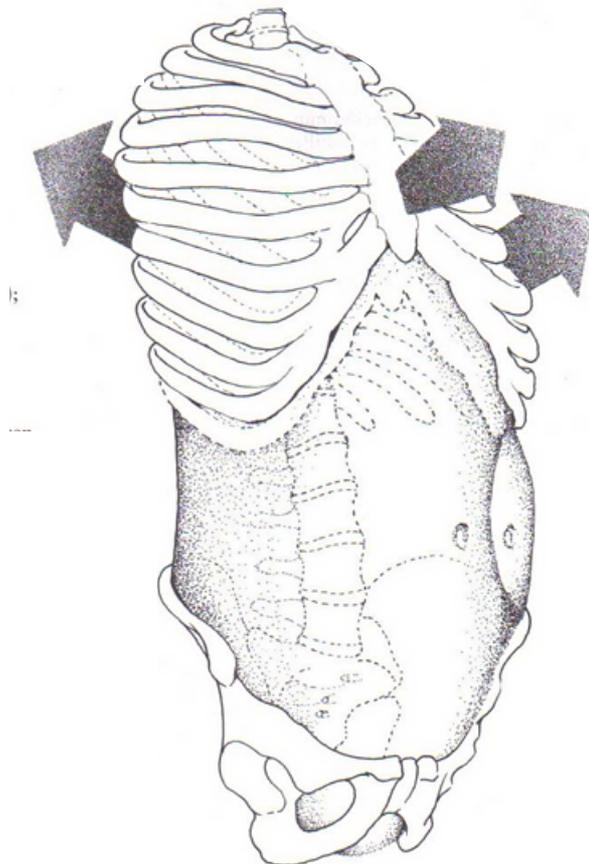


## **There are two main types of respiratory gestures:**

1. The ones made with the ribs (they open on the inhale, they close in the exhale); and
2. Those made with the abdominal cavity (the abdomen bulges and comes out on the inhale and retreats on the exhale).

These two types of breathing correspond to two fundamentally different ways of mobilizing the lungs. They can be mixed and matched in multiple ways, which is going to result in a wide variety of breaths... But all of these breaths are going to ultimately come down to one or the other of these two big types, which will appear throughout our study.

**Contrary to what is sometimes taught, neither of these breaths is "good" or "bad":** they are simply appropriate for different circumstances, for different purposes. For optimal respiratory and overall health, it is therefore important to be able to breathe in varied ways, especially if when realize that you have a tendency to breathe with only one type of movement.



*Illustration to show the ways in which the rib cage can move, and how the belly can move during breath.*

## **The muscles of breath**

There are many muscles that can participate in respiratory movements. Most of them do not have this respiratory action as their main function.

Generally speaking, there are two types of muscles when it comes to breath. Some are inhaler muscles: they expand the lungs. Others are exhaler muscles: They "close" the lungs. Some muscles can be involved in both inhale and exhale, depending on how they combine their action with other muscles.

## **The inhaler muscles**

They are all the muscles that, through their action, will cause an increase in the volume of the lungs. This increase can occur through two main mechanisms:

- We can enlarge the lungs by pulling them open at their base.
- Or we enlarge the lungs by pulling their front, later, and back side open.

The first muscle we take a look at, the diaphragm, can act in both of these ways.

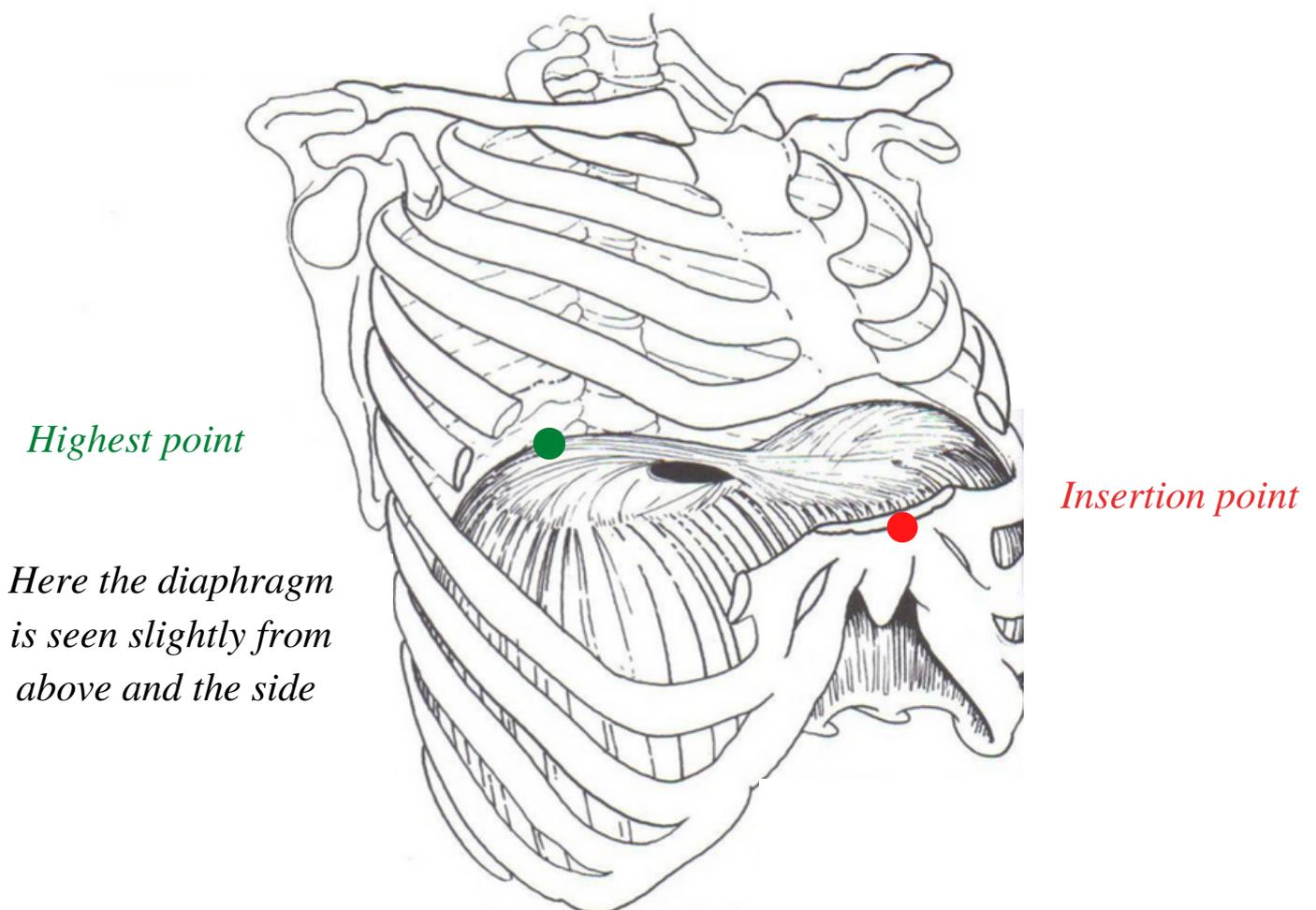
Sometimes these muscles do not contribute to breath directly. They can, for instance, slow down respiratory movements or stop them, acting as a "brake" during breath. In other moments, these muscles can allow for the respiratory movements to occur by simply relaxing and thus letting the movement occur more easily. Last but not least, you should keep in mind that there are certain movements during breath that occur without any muscular action.

## The diaphragm: the main inhaler muscle

Most of the habitual breaths people make occur thanks to the diaphragm. It acts like a pump located at the base of the lungs. The diaphragm is a wide septum, a dividing wall that is both muscular and fibrous, and it both separates and unites the thorax (the area of the rib cage) and abdomen.

Lodged between the organs as a flexible layer, it molds itself over them and takes its shape: that of a large irregular dome, quite thin, more developed behind than in front. In other words, contrary to what some illustrations might lead one to imagine, the diaphragm is not a rigid dome.

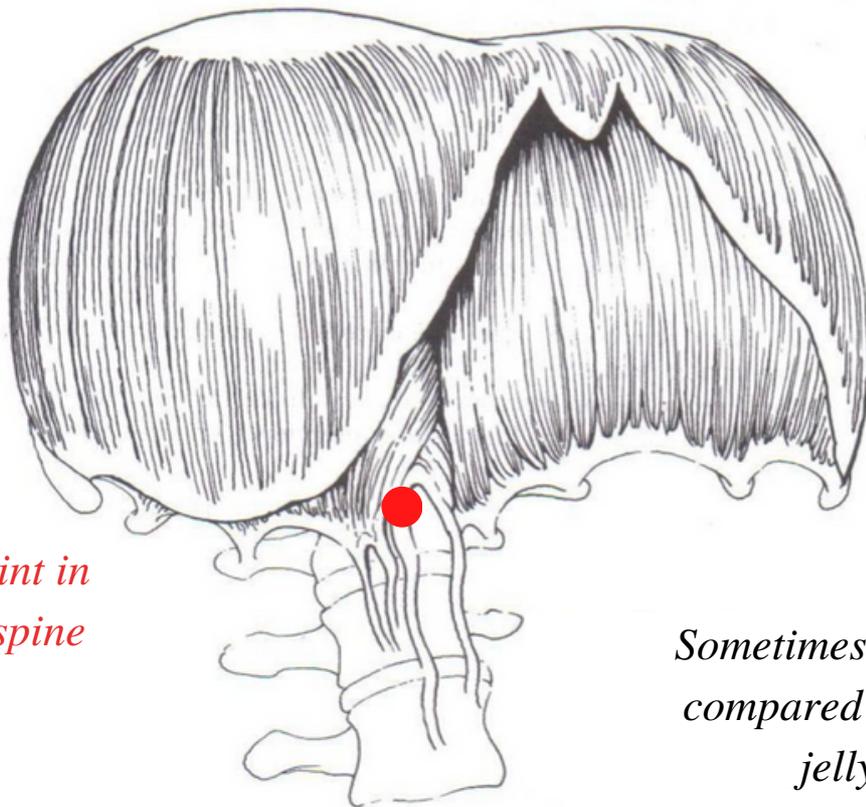
Its edges are inserted into the inner contour of the rib cage. The right side is slightly more curved and higher than the left.



## So where is the diaphragm located on the trunk?

The highest point of this dome is at the level of the fourth or fifth rib, or slightly above the tip of the sternum. In the back, this point projects to the level of the seventh thoracic vertebra. (Beware that these are average indicators that vary with the position of the ribcage, and depending on inhale/exhale.)

The lowest point of the diaphragm is behind, formed by the insertions that end at the lumbar spine (lower back), at the L3 vertebra to be precise. This corresponds to the waist area. As we can see, this muscle sits in the trunk in a rather uneven way.



*Insertion point in  
the lumbar spine*

*Sometimes its shape is  
compared to that of a  
jelly fish*

## **The diaphragm and the viscera (organs) of the abdomen**

The diaphragm is arranged like a mantle over the highest viscera of the abdomen:

- The stomach, on the left, which adheres to the diaphragm on its lateral sides.
- The liver, which adheres to its lateral, superior and posterior faces.
- the kidneys, the spleen, the pancreas, the aortic artery, and part the large intestine.

Thus, through its movements, the diaphragm will directly influence these viscera, modifying the shape of one organ or the other, or of the whole area. Additionally, the movements of the diaphragm can also also somewhat impact the shape and movements of all the other organs contained within the whole abdominal cavity.

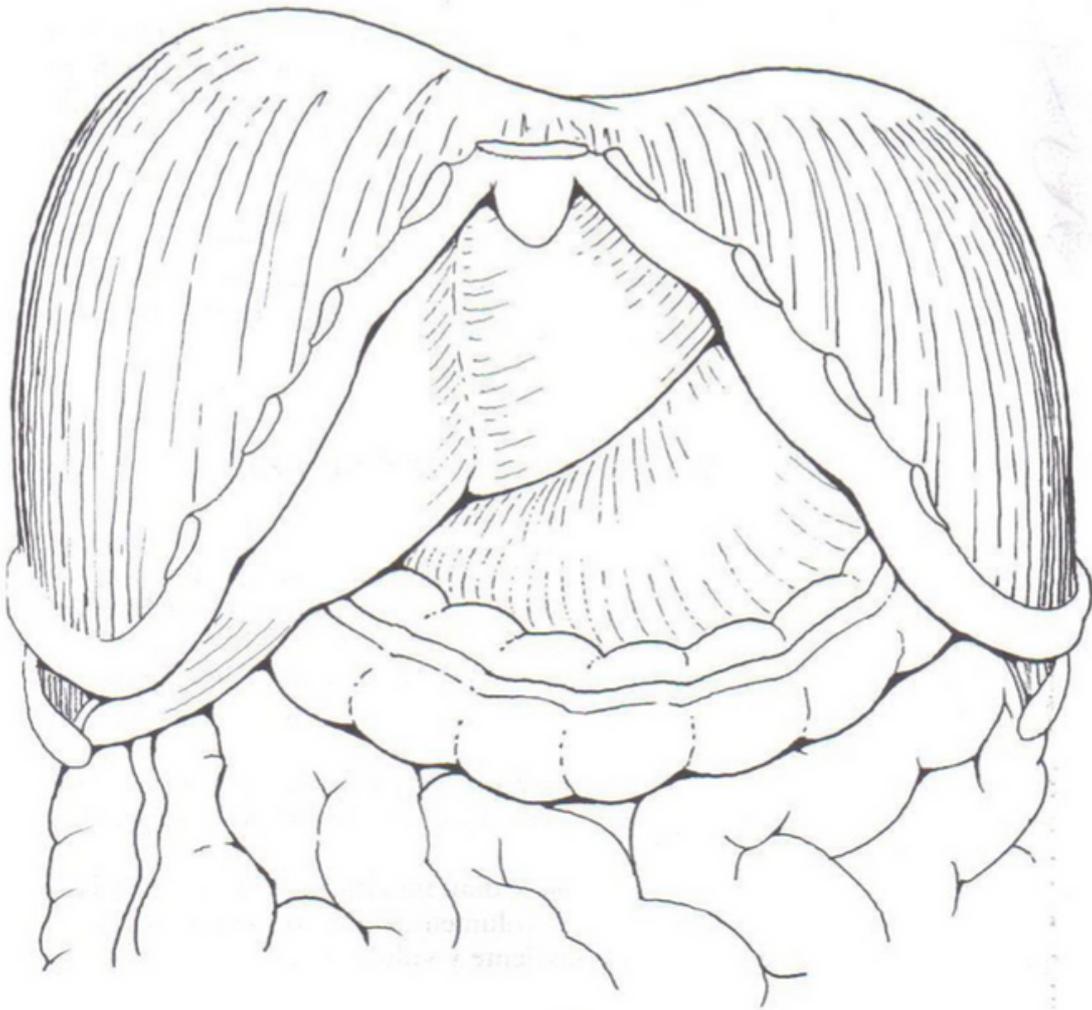
We will learn how having a flexible diaphragm benefits all our organs, and by recovering range of motion with the diaphragm, we can even ‘massage’ our abdominal viscera, which in turn can impact our pelvic health.

### **How the diaphragm moves during breath**

During breathing, the diaphragm works in the following way: As it contracts it begins to lower, thereby pulling lungs open from below so that they can take in air. This downward movement of our diaphragm presses on our organs below, leading our belly to bulge out.

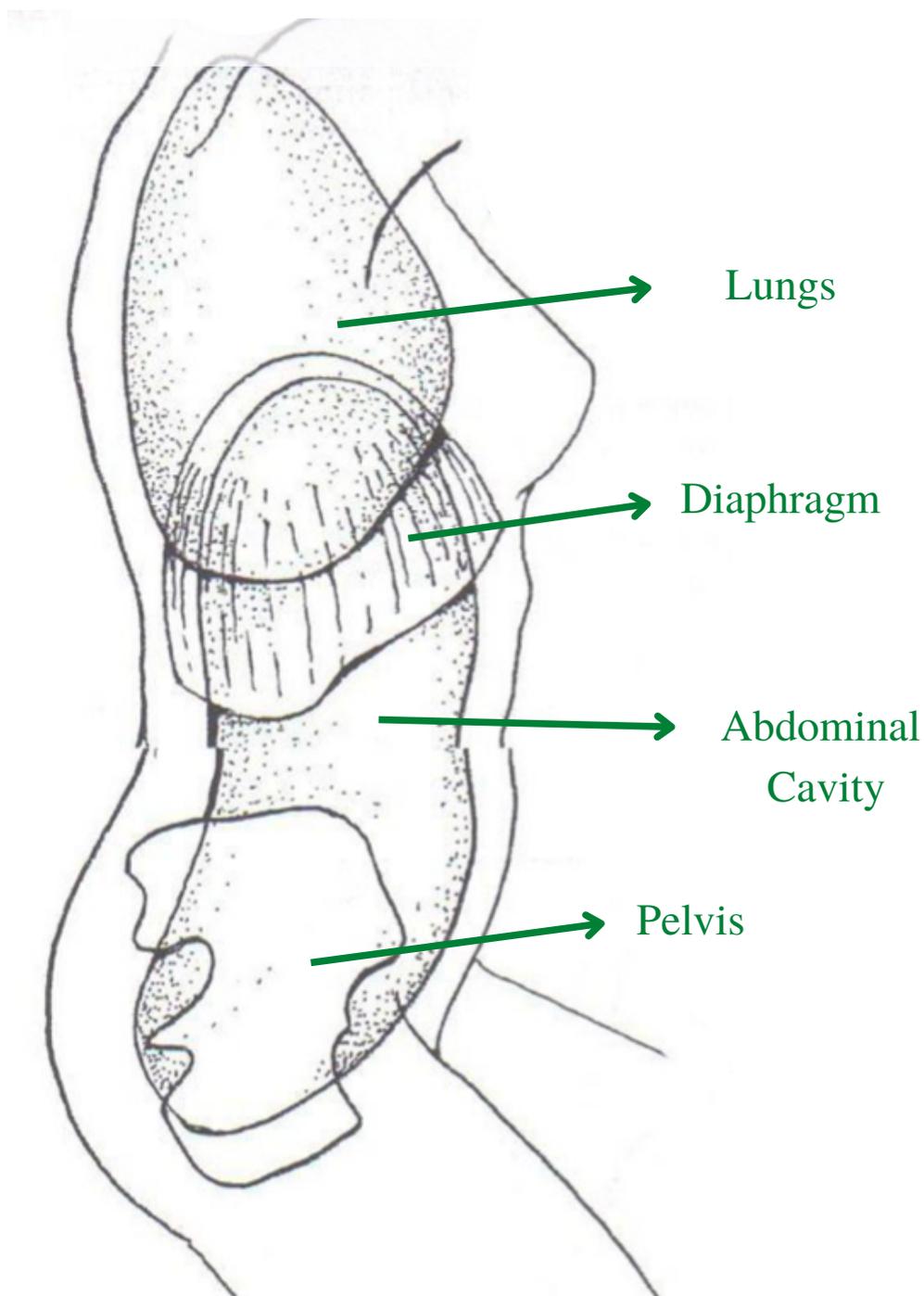
On the exhale, the diaphragm releases and moves back up. The volume of the lungs now decreases and with this, the air is expelled from the lungs. This is also the moment when our belly moves back to its previous position.

*View of the diaphragm enveloping  
the viscera from above*



The diaphragm acts like a moving cylinder between the chest and abdomen. Its contraction lowers it towards the pelvis. Its relaxation lifts it up back towards the rib cage.

This means we can actively work with the pressures between the different elements making up our whole torso, from the top of the rib cage all the way to the pelvis. We can do this to create more freedom, expression and sensation in these vital body structures.

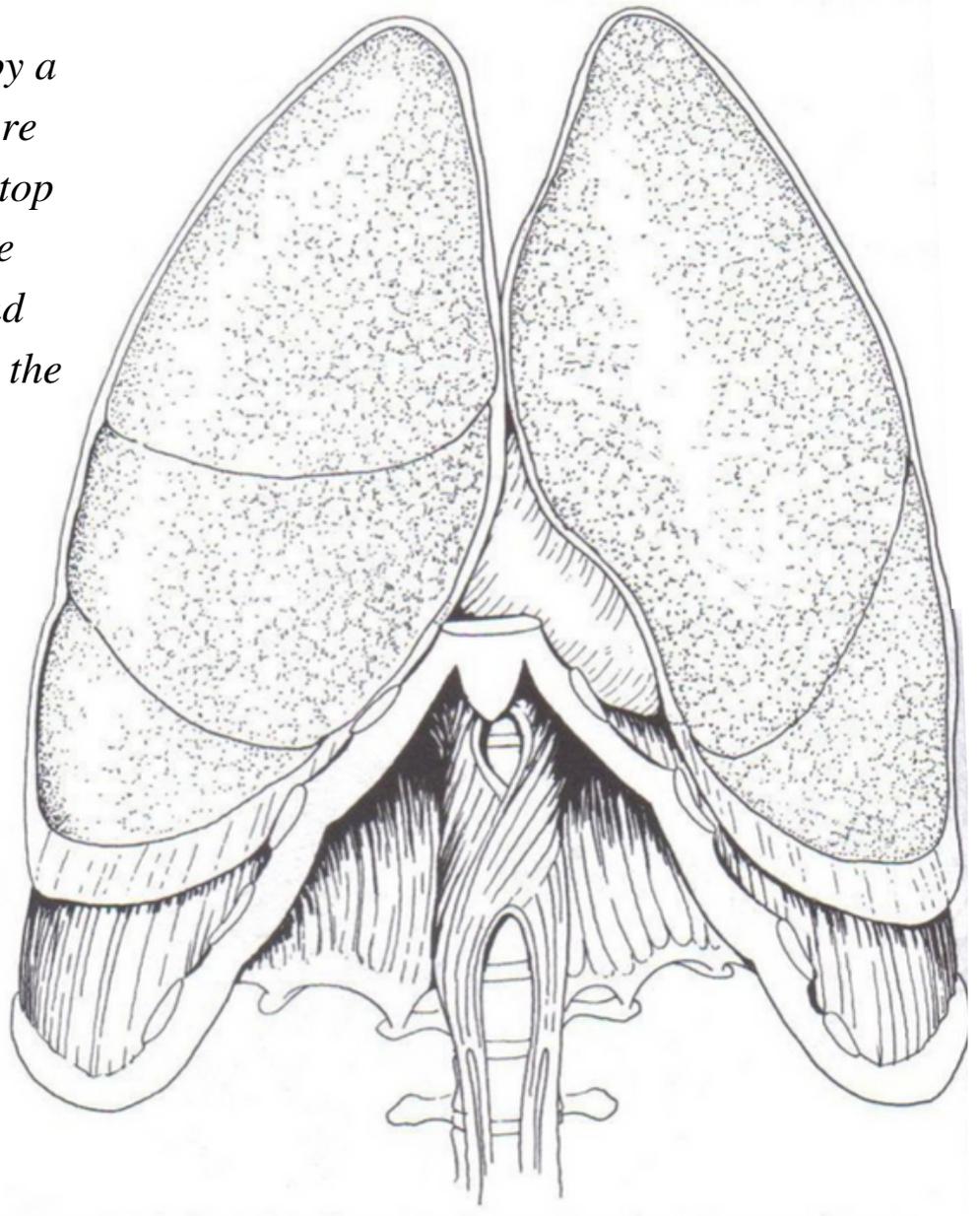


## Diaphragm and thoracic viscera (lungs)

The diaphragm forms a convex "bottom" for the thorax. The thorax can be described the region extending up from the top of the abdomen to the root of where our neck begins.

The lungs are situated on the diaphragm through their bases; they effectively adhere to this "floor" with their lower part. Every movement or change in shape in the diaphragm will this also be transmitted to the lower part of the lungs.

*View of the lungs, covered by a tissue known as pleura. Here you see the lungs sitting on top of the diaphragm, with the bottom ribs at the front and bottom, and lumbar spine in the back also visible.*



## **Additional inhaler muscles apart from the diaphragm, the so-called "thoracic inhaler muscles"**

Although most of the common inhalations are made by the diaphragm, we can inhale in a very different way: by "opening" the rib cage through the inhaler muscles of the ribs, often called thoracic inhaler muscles. While the diaphragm acts from inside, the thoracic inhaler muscles all act from the outside.

The action of these muscles is thus much easier to recognize, since almost all of them are superficial, palpable under the skin: they are more easily felt. These muscles act during inhalation by pulling the rib cage open to the sides, front and back.

Having flexibility and range of motion in these muscles is a key in keeping a flexible rib cage, which in turn not only contributes to a healthy breathing ability, but also pelvic health & sensation, along with our ability to project our most rooted voice.

We will more on this later in our training. It is the reason is why exercises that mobilize the rib cage are particularly important for our purposes- aiming to awaken the three centers of heart area, pelvis and voice box that this training is concerned with.

Thus the thoracic inhaler muscles offer an additional mechanism by which the lungs can be pulled open to take in air, giving us the option of not only relying on the diaphragm to do that job.

## The thoracic inahler muscles

As you look at each one of these inahler muscles, imagine how they move when they pull open the rib cage during an inhalation. Can you identify any of them that could be helped in this "pulling open" action by moving our head or our arms in a particular way? And if so, in which way?

Explore the images by looking at where the muscles insert.

