



The Lungs and Respiratory System

March is here – that means it’s spring-time! After months of chilly weather, the sun shines longer each day, and plants will begin to bloom. It feels so good to step outside, take a deep breath, and fill your lungs with fresh air. That first big breath of spring is a perfect reminder of how AMAZING your lungs and respiratory system truly are.

Breathing In, Breathing Out

Did you know that you take thousands of breaths every day – about 20,000 in fact! Breathing keeps you alive and full of energy. When you breathe in, oxygen travels through your nose or mouth, down your “windpipe”, also called the trachea, and into two main airways called bronchi that lead to your lungs.

Your lungs work in partnership with your heart, and they are all protected by your rib cage. The lungs have a right side and a left side – each with multiple lobes, or parts. Your right lung has three lobes, and your left lung has two. The left lung has two lobes to make room for your heart.

Inside your lungs, the air moves through from your nose, down the trachea, into the bronchi, and then into smaller and smaller tubes until it reaches millions of tiny air sacs called alveoli. This is where the magic happens. Inside these tiny sacs, oxygen diffuses into your blood, and carbon dioxide moves out of your blood and into the lungs so you can breathe it out.

The Diaphragm: Your Breathing Muscle

Right under your lungs is a strong, dome-shaped muscle called the **diaphragm**.

When you breath in, the lungs expand with air and the diaphragm contracts downward. This is why when you take a deep breath, your lower belly moves outward slightly.

As you breathe out and the diaphragm relaxes, it moves up again. The diaphragm moving up and down also helps to create healthy pressure on your abdominal organs, like your digestive tract and is almost like a mini-massage for the organs.

Would you like to try diaphragmatic or “belly” breathing?

Here’s how: put one hand on your belly and take a slow, deep breath in through your nose.

Feel your belly rise like a balloon as your lungs fill with air.

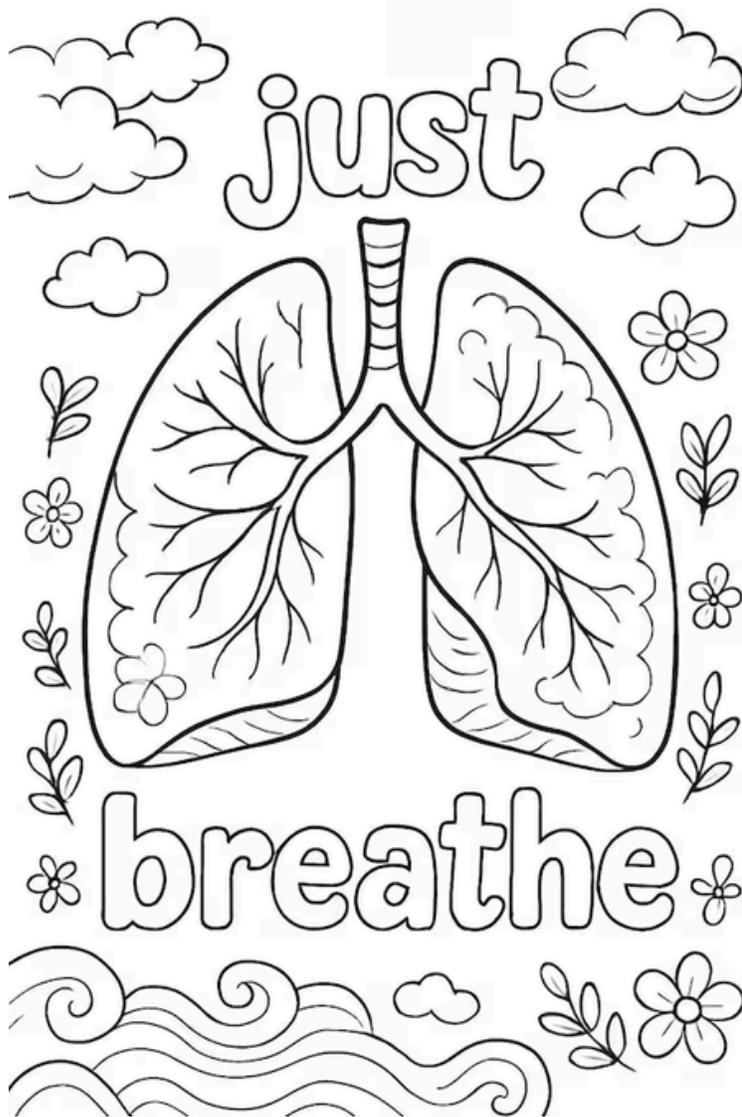
Now breathe out slowly through your mouth and feel your belly fall or flatten.

This kind of breathing can help your brain and body feel calm and relaxed.

Why Oxygen Is So Important

Every cell in your body needs oxygen to make energy. Your heart pumps oxygen-rich blood from your lungs to every part of your body – all the way to your finger tips and toes. Oxygen-rich blood flow is important – it helps your muscles move well, helps your brain with all of its important tasks, including thinking, and helps your organs do their work. Without your lungs bringing in oxygen, your body wouldn't have the energy it needs to grow, heal, and play.

Your body can survive several days without water, and several weeks without food – but the body can only go a few minutes without oxygen – it is that important!



Did You Know?

- You breathe faster when you're running, laughing, or playing because your body needs extra oxygen for energy.
- Plants and trees are your breathing buddies. They take in carbon dioxide and give off oxygen! Then we breathe in the oxygen and breathe out the carbon dioxide. In this way, we have a special relationship with plants and trees – giving each other what we need to be healthy.
- When you receive a chiropractic adjustment, it can help your ribs and mid-back move more freely. That's why sometimes after an adjustment people feel like they can take a big deep breath, feel more relaxed, and like they can breathe easier.

As the world wakes up this March—flowers blooming, birds singing, sunshine stretching longer each day—take a few moments to notice your breath. Feel the air move in, and the air move out, and remember: your lungs are working all day, every day, quietly keeping you energized and connected to the world around you. Your body is AMAZING! Happy spring!

By Mackenzie McNamara, DC