

Breathing / Mindfulness

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Breathing and Mindfulness go hand in hand. You cannot focus on your breath without becoming mindful.

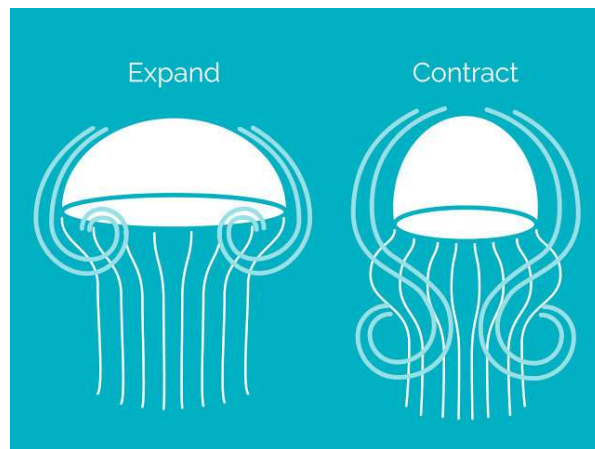
Three-Dimensional Breathing

- The diaphragm is the main muscle for breathing
- It separates the thoracic cavity (heart & lungs) and abdominal cavity (stomach, liver, spleen, pancreas, intestines, kidneys & bladder)
- Breathe in (inhale) the diaphragm moves down increasing the thoracic cavity to allow air to flow in, pushing the stomach cavity down.
- Breathe out (exhale) the thoracic cavity reduces, and the diaphragm moves up, pushing the abdominal cavity up into the thoracic cavity.
- This shape change involves three dimensional movements, Top to bottom, side to side & front to back.

This three-dimensional shape changing can be thought of as our breathing. ^[5]

The diaphragm can create all the three-dimensional movements needed to breathe.

Therefore, image our diaphragm to be a bit like a jellyfish. As the diaphragm is shaped by the organs it encloses and supports.



Changing the shape of how we breathe

- The diaphragm can change shape in two different ways
- A belly bulger (belly breathing) or rib cage lifter.

Normally, we just use the diaphragm to breathe, this is because the other breathing muscles also stabilise the bodies mass and are already active even when we are lying down. Therefore, we need to make a conscious effort to use our accessory muscles not just our diaphragm to change our breathing shape.

So, when we practice belly breathing, we are in fact training our accessory breathing muscles to coordinate their action with the diaphragm action resulting in an efficient and effective breath. [5]

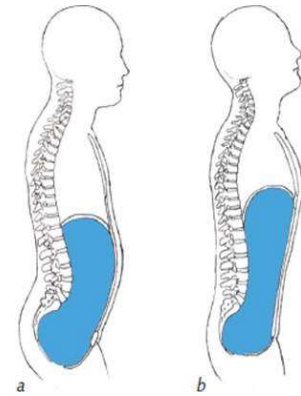


Figure 1.12 The diaphragm can be (a) a belly bulger during the belly inhalation, or (b) a rib cage lifter during the chest inhalation.

How the breath triggers the nervous systems switch

- Breathing regulates & triggers both the parasympathetic (rest/digest/repair, green zone) and sympathetic (fight/flight/freeze, red zone) parts of the nervous system
- The breath acts as a switch with the ability to transition between the green and red zones
- Breathing through your nose into the belly sends a message to our brain to switch the nervous system into the parasympathetic state of healing and rejuvenation

Breathing is so much more than respiration it effects the whole body, from the rhythm of brain function to body stability to co-ordination and vocalisation, to our moods, emotions and even the way we think!

1. Breathing well enriches our blood flow to the gut, stabilizing and assisting in the healthy production of the serotonin and dopamine neurotransmitters. These are important for how we feel and what drives our behaviour.
2. When we are calm our reproductive organs have a good supply of oxygenated blood.
3. Together this helps us to digest food better, increases our libido and enables reproduction. Hence the term rest, digest and reproduce.
4. The hormone acetylcholine is produced which slows our heart rate and regulates our blood pressure.
5. Our brain also gets a good supply of oxygenated blood which assists in nourishing and repairing our body. [2]

Breathing exercises

We use our awareness (mindfulness) of our belly when breathing to begin to feel and engage and train the associated breathing muscles to work with the diaphragm. Therefore, you do not just breathe into the belly. If you image the image of the jelly fish again, and the three-dimensional shape change. You begin to become aware that in fact, you use the (stomach cavity) belly, and the rib cage (thoracic cavity) **together** to breath effectively.

Breathing Practice

This practice is a great way to start to use the whole of the lungs, diaphragm, and associated muscles to begin to breathe efftely and efficiently.

3 part breathing practice - using hands (optional) to notice movement of each body part

- **Breathe into belly** - feel the movement of the belly rising as you inhale and falling as you exhale
- **Breathe into belly then rib cage** - place hands on either side of rib cage, as you breathe in feel rib cage expand out to sides, back and front, as you exhale feel rib cage contract back together moving inwards from back to front and side to side
- **Breathe into belly, rib cage and tops of lungs (just below the collar bone)** - Use your hands to place on different parts of body as you breathe. When you come to the tops of lungs, feel the area just below the collar bone move up and out, and when you exhale feel this space move down and in.

Alternative breathing practice

Chest and belly breathing

- Place one hand on chest and one on belly
- Relax your jaw and neck, and release your shoulders down
- Notice the chest rise and fall as you breathe normally
- Begin to move the belly in time with your chest as you breathe
- When the chest rises (inhale) so does the belly. When your chest falls (exhale)so the belly pulls in (use your belly muscles to pull the belly button towards your spine as you breathe out)
- Continue breathing more deeply, making sure that the chest and belly move at the same time.
- Keep your shoulders relaxed

Mindfulness is not meditation

- Mindfulness does not require trying or striving to force something to happen
- Not aiming to perfect or attain a state of mind especially one that eliminates our thoughts
- You are learning to **watch, feel, and observe** our mind, and body as it is right now, without trying to change it, including the thinking mind! ^[6]

How to be mindful in everyday life

You can be mindful when you are in different postures and restorative practices such as legs up the wall and gentle stretches. Noticing how these movements effect the body and your breath.

Being mindful and breathing correctly changes how we respond to different situations

You cannot always change what's happening around you, but you can change how you respond to this by being more mindful of the present moment. When you learn to be mindful of what is going on around you, you become an observer. This helps you step out of the situation allowing you to have time to think of how to respond better.

"When you start to watch your thoughts and notice how distracted you are, you become a witness. In this way you are like the ocean observing the waves rising and falling. And you start to feel that there is a part of you not subject to change. That you are in fact the ocean, not just the waves, and from this place you can experience presence" [7]

Mindfulness connects us to the world around, allowing us to appreciate the simpler things

Mindfulness can benefit the environment. Being in the present moment through mindfulness enhances our ecological behaviour.

Research has shown the indirect link between improved ecological behaviour and mindfulness, to even global health behaviour. [3]

When we notice the world around us, especially in nature and the natural world. We want to start taking care of it. Not seeing the world as just a resource.

"Nature is part of the human race, and spirituality (or becoming more self-aware) shapes this relationship. Links between climate change and individual actions creates environmental citizenship. These increased connections make aware of the entwined relationship of consumer patterns versus open behaviours, and larger global collectives. Mindfulness develops values that embrace ecocentric worldviews beneficial to the environment. Mindfulness can help in the impact of individual decision making, and environmental sustainability." [4]

Mindfulness Practice

Mindfulness can be hard as the body connection is often not there. We must learn to accept first before you are ready to go into your body

Often with people who have experienced ME/CFS symptoms.

- Your body has become a place of trauma and a scary place
- You have become terrified to be in your body as any change to routine can set off symptoms and any change you do is a leap of faith
- Your journey can be a constant rollercoaster ride of hope and despair

Mindfulness Movement can often feel better to do because you are doing something rather than just sitting with your body.

Go for gentle walks in nature – look for something beautiful

- A flower or bird
- The crinkling of leaves in autumn
- The way the clouds change shape
- Appreciate the changing of the seasons
- Find a tree you can hug and connect with
- A blade of grass or spot in the garden you can put your feet on each day to connect with nature and the earth
- Have something to look after (a plant or goldfish) giving you a reason to get up in the morning

References

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