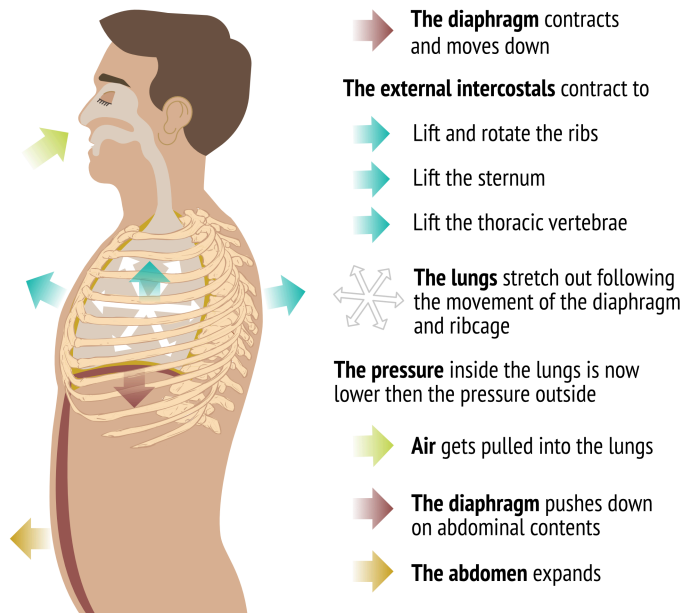


## HOW TO COMBINE BREATH AND MOVEMENT IN YOUR YOGA PRACTICE

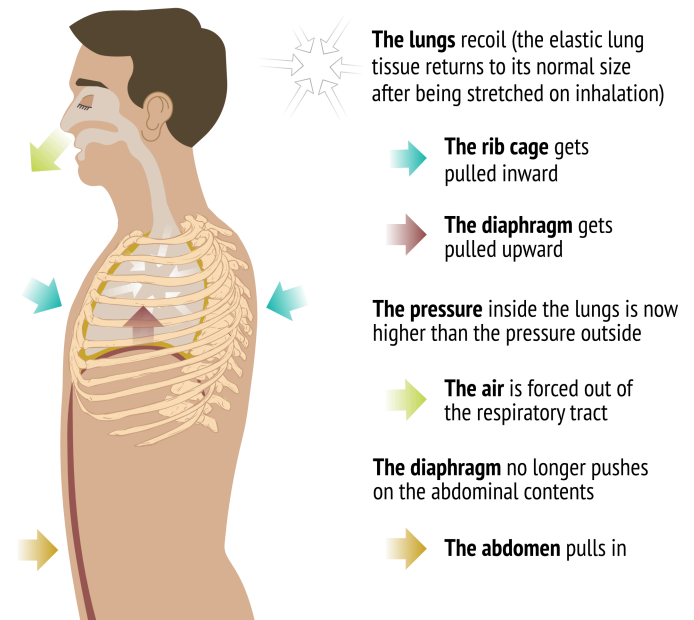
New yoga students are often confused about whether to do a certain movement on the inhale or the exhale. Here are the foundational principles that guide those choices.

The main principle we use when deciding on how to breathe in a particular posture is succinctly defined by Gary Kraftsow in his book *Yoga for Wellness*. He writes: "The particular techniques of breathing used in asana practice are designed to maximize certain structural effects of the inhale and exhale; and the postures themselves can be considered as a way to deepen or extend these structural effects of the breath." Breath always comes first. Both inhalation and exhalation move the physical structures of the body in a certain subtle way, and in our yoga practice we choose to coordinate the action of asana with this subtle movement.

### THE MECHANICS OF INHALATION



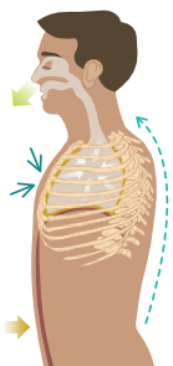
### THE MECHANICS OF EXHALATION



Another important factor in breathing is the shape of your skeleton, specifically your rib cage and your spine. The movement of the ribs and the movement of the spinal vertebrae are closely linked. Because of the spinal and rib cage shapes, as well as the pulling force applied by muscles, different spinal movements move the body either in *expiratory* (supporting the exhalation) or *inspiratory* (supporting the inhalation) directions.

Bending the spine forward moves the body in an expiratory direction, which is emphasized by the ribs in the front moving closer together and the volume of the thoracic cavity decreasing. This movement could be augmented by intentional compression of the abdomen. That's why we bend forward with exhalation.

### EXHALE



### FORWARD BEND



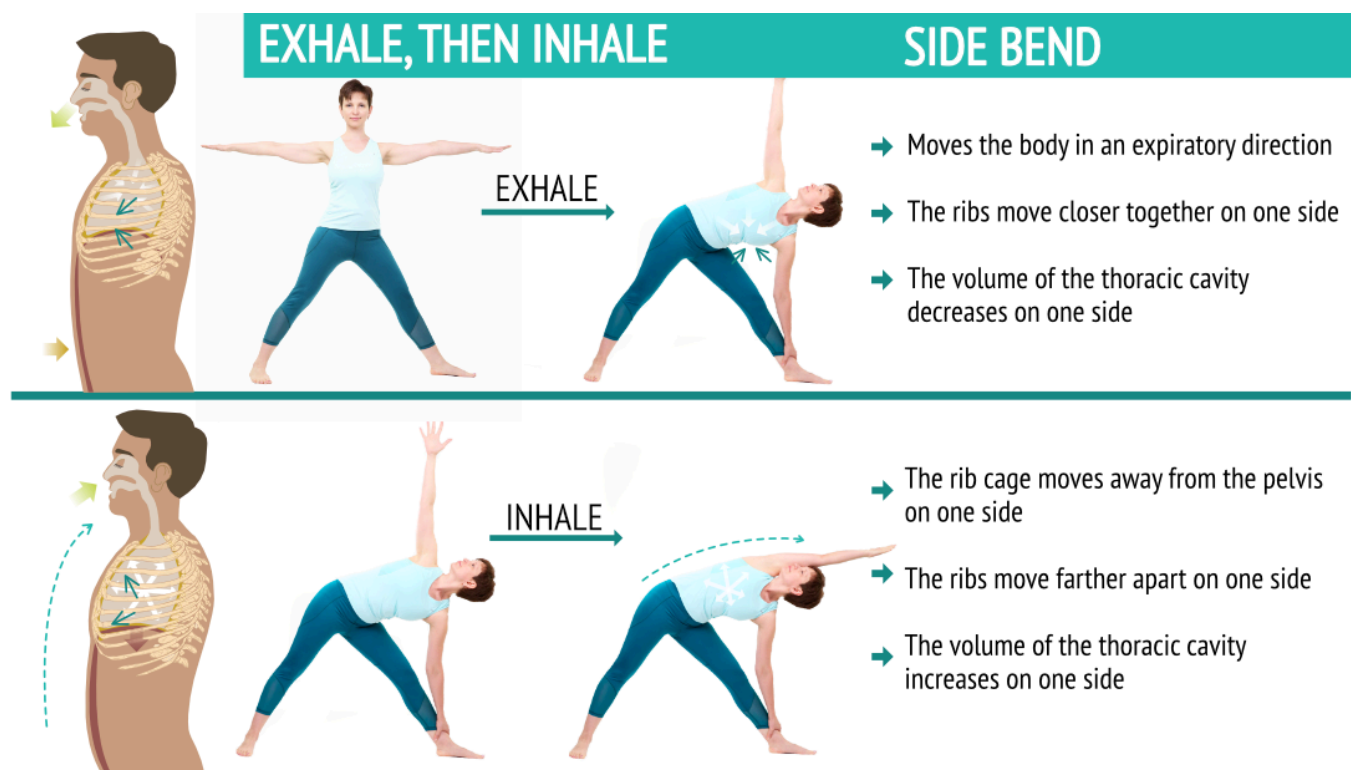
- ➔ Moves the body in an expiratory direction
- ➔ The ribs in the front move closer together
- ➔ The volume of the thoracic cavity decreases
- ➔ Could be augmented by intentional compression of the abdomen

## HOW TO COMBINE BREATH AND MOVEMENT IN YOUR YOGA PRACTICE

Bending the spine backward moves the body in an inspiratory direction, which is emphasized by the ribs in the front moving farther apart and the volume of thoracic cavity increasing. This movement could be augmented by intentional lifting of the chest away from the navel. That is why we bend backward on inhalation.



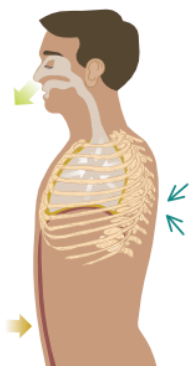
Bending the spine sideways moves the body in expiratory direction, which is emphasized by the ribs on one side moving closer together. But creating a lateral stretch on the opposite side can only happen if we lift the rib cage away from the pelvis, move the ribs farther apart and increase thoracic volume on one side, which happens on inhalation. That is why we move into a side bend on exhalation, and then “work the pose” by emphasizing inhalation on the opposite side of the body.



Most of the spinal rotation happens at the level of thoracic and cervical vertebrae. Rotating the spine produces reduction in the overall height of the disk between the vertebrae and slight compression of the nucleus because of the torsion effect on the fibers, which moves the body in an expiratory direction. This is emphasized by abdominal compression that happens with twisting, which pushes the diaphragm up, and decreased thoracic volume. This is why we twist on exhalation.

## HOW TO COMBINE BREATH AND MOVEMENT IN YOUR YOGA PRACTICE

### EXHALE

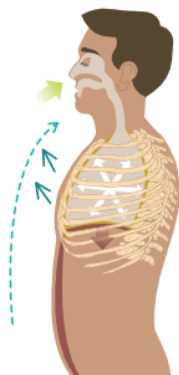


### TWIST (spinal rotation)

- Produces reduction in the overall height of the disks between the vertebrae
- The ribs move forward on one side and back on the other
- The volume of the thoracic cavity decreases
- Could be augmented by intentional compression of the abdomen

Lengthening the spine upwards (axial extension) lifts the ribs upward and slightly away from each other, which moves the body in an inspiratory direction. This is emphasized by intentional expansion of the ribcage.

### INHALE



### AXIAL EXTENSION

- Lengthens the spine upwards
- The ribs move upwards and apart
- The volume of the thoracic cavity increases
- Could be augmented by intentional expansion of the rib cage

We can choose to augment any of those movements to create a deeper stretch in the body. For example, raising the arms up and widening the chest will support the skeletal actions of back bending, side bending and axial extension, while facilitating inhalation. Lowering the arms down and compressing the abdomen will support the skeletal actions of forward bending and twisting, while facilitating exhalation. It doesn't mean that we can never lower the arms down on inhalation. All it means is that we consciously choose to enhance the natural process of inhalation and exhalation, to "ride the wave of the breath", so to speak, in our asana practice. This makes the practice more organic and allows us to link the physical and physiological dimensions.