



Let's Twist Again

Twisting Poses will help restore your spine's natural range of motion, cleanse your organs, and stimulate circulation.

By Julie Gudmestad

Try asking some nonyogis what they think happens in a yoga class, and at least one will answer that people get "all twisted up like a pretzel." In fact, we yogis do twist a lot in a well-rounded yoga practice: We twist while sitting, standing, and standing on our heads. Because there is such an intriguing variety of twists, you might guess that twists provide an abundance of benefits. And they do. There are physiological benefits to the circulatory system and internal organs, structural benefits to the musculoskeletal system, and focusing benefits to your consciousness.

Indian yoga master B.K.S. Iyengar describes twists as a "squeeze-and-soak" action: The organs are compressed during a twist, pushing out blood filled with metabolic by-products and toxins. When we release the twist, fresh blood flows in, carrying oxygen and the building blocks for tissue healing. So from the physiological standpoint, twists stimulate circulation and have a cleansing and refreshing effect on the torso organs and associated glands.

While these physiological benefits are undeniably valuable, this column will focus primarily on the functions of and benefits to muscles and joints used in twists. Yoga twists involve the spine, as well as several major joints, including the hips and shoulders. In fact, full range of motion in spinal rotation is essential to many yoga poses. Unfortunately, many people lose full spinal rotation in the course of living a sedentary lifestyle. Some losses can occur if joints fuse due to trauma, surgery, or arthritis, but most range of motion loss comes from the shortening of soft tissues. If you don't lengthen the muscles, tendons, ligaments, and fascia (connective tissues) to their full length at least a few times a week, they will gradually shorten and limit the nearby joint's mobility. In the case of twisting, the limitation is usually in soft tissues around the spine, abdomen, rib cage, and hips. If you regularly practice yoga twists, there are some clear benefits to these same joints and soft tissues. Not only do you maintain the normal length and resilience of the soft tissues, but you also help to maintain the health of the discs and facet joints (the small pair of joints on the back of the spine where each two vertebrae overlap).

A Twist a Day

To maintain or restore the normal spinal rotation, I recommend that you practice a simple spinal twist once or twice a day. (Note: If you have a spinal disc injury, consult your health-care provider before practicing twists of any kind.) A variation of the twist [Bharadvajasana \(Pose Dedicated to the Sage Bharadvaja\)](#) done sitting on a chair is an excellent option because it is so easy to integrate into everyday life.

Even in such a basic twist, however, there are a few anatomical points to keep in mind. Most important is to elongate the spine; a slumped-over posture significantly limits spinal rotation. So begin by sitting sideways on a stable, armless chair, and take a moment to ground your sitting bones and draw your spine straight up toward the crown of your head. Also, make sure that your spine is perpendicular to the chair seat, neither listing to the side nor to the front or back. The second important point to remember is that each section of the spine has a different rotational mobility. The cervical (neck) vertebrae, for example, are the most mobile in twisting. Because the 12 thoracic (midback) vertebrae have ribs attached, they can't twist as freely as the neck vertebrae. And because of the orientation of the lumbar (lower spine) facet joints, the rotation of these five vertebrae is the most limited. So to ensure that you don't overtwist in the more mobile parts of your spine, begin your seated twist by bringing your awareness into your lower back and beginning the twist from there. Let the twist gradually unfold up your spine, as though you were walking up a spiral staircase, so that each vertebra participates in the twist. If instead you twist quickly and without awareness, your neck will likely do most of the twisting, and whole sections of your spine can remain "stuck" and unmoving.

Once you've begun to rotate toward the back of the chair, you can use your hands on the corners of the chairback to deepen the twist in your spine and rib cage. Pull gently with the hand on the near corner and push with the hand on the far corner. Continue to sit tall, and don't work so hard with the pulling hand that you draw that shoulder forward. As the twist unfolds all the way up into your neck, your head will turn, but be sure to keep your eyes and gaze soft. Hold the twist on each side for a minute or so, and use your breathing

to help deepen the twist: On one exhalation, draw yourself taller; on the next exhalation, twist a bit more. With regular practice of this and other simple twists, your spine will regain its full potential for twisting.

Criss-Cross Action

Now that you know the basics about restoring your spine's rotational range of motion, let's take a look at muscle activity in twists. Many, many muscle groups are involved in twists, contracting and shortening or stretching and lengthening. There are several groups of back muscles of varying length—the rotatores, semispinalis, and multifidus—that contribute to spinal rotation. Some of the muscles that actively rotate the torso are quite small, like the intercostals, the layers of muscle between each two ribs. And several sets of muscles contribute to your ability to turn your head; the easiest to see is the sternocleidomastoid. The two SCMs sit on the front of your neck, forming a "V" starting at the top of the breastbone and running to the base of the skull just behind each ear. Look in a mirror: If you turn your head to the right, you'll see your left SCM contract, and vice versa.

Probably the most important muscle group in active twisting is the abdominal obliques. The obliques form two layers of muscle on either side of the better-known rectus abdominus, the "six-pack" muscle that runs vertically up the center of the abdomen from the pubic bone to the rib cage. The two internal obliques, left and right, originate primarily from the pelvis and travel diagonally up across the abdomen, while the two external obliques originate primarily from the lower rib cage and travel diagonally down across the abdomen. All of the obliques have strong attachments to the substantial fascia of the lower back and to the abdomen.

Taken together, the four obliques form a diagonal cross that girdles the abdomen, and they have important functions in supporting the lower back, pelvis, and internal organs. The diagonal lines of the muscles also give them strong leverage in rotating the torso. When you turn to the right in Bharadvajasana, for example, the left external oblique will team with the right internal oblique to rotate your torso. At the same time, the opposite pair of obliques will have to lengthen. And so your twisting range of motion can be reduced by the inability of one pair (one external oblique and the other opposite internal oblique) to lengthen, while weakness in the opposite pair could limit your ability to actively draw yourself into the twist.

The obliques have a big part to play in yoga poses, and sometimes that role can be extremely demanding. Twisting arm balances such as Astavakrasana (Eight-Angle Pose), and Parsva Bakasana (Side Crane Pose) require big work from the obliques. If you're not quite ready for the difficulties of arm balances, you can still challenge your obliques in standing poses like Trikonasana (Triangle Pose), Ardha Chandrasana (Half Moon Pose), Parsvakonasana (Side Angle Pose), and Parivrtta Trikonasana (Revolved Triangle Pose). Each of these poses requires a strong rotation of the torso against the pull of gravity. For example, when you perform Trikonasana to the right, your muscles actively twist your trunk and neck to the left so that your heart looks straight ahead, not at the floor, and your eyes look up at your left hand. But when you do Parivrtta Trikonasana to the right, your torso and neck twist strongly to the right, requiring strong contractions of the obliques, the spinal rotators, the intercostals, and the left sternocleidomastoid.

In addition to the regular practice of standing poses, you can help keep your obliques strong by practicing the full or modified versions of Jathara Parivartanasana (Revolved Abdomen Pose). For the modified, milder version, lie on your back, with arms stretched out to the sides at shoulder height and knees pulled up toward your chest. Exhaling, smoothly drop both knees to one side, keeping your knees pulled up toward your arm. On your next exhalation, lift your legs back up toward your chest, flattening your back waist into the floor. For the full pose, lie on your back, arms outstretched again, and stretch your legs straight up toward the ceiling. Lower your straight legs toward the floor on one side (for the maximum challenge, don't quite touch the floor). Keep stretching out through the soles of the feet; also, when you lift the legs back up to vertical, be sure to press the lower back flat. Since this can be quite a challenging pose, you may want to consult with your health-care provider before trying this if you have lower back or sacroiliac problems.

Now that you know how to reap the physiological and structural benefits of twists, you might also notice the centering benefits to your consciousness. As the layers of muscle and bone revolve deeply, your attention is drawn into the stable, unmoving center of the pose. And this ability to stay centered as the hubbub of the world swirls around you will pay obvious dividends in the yoga of daily living.