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Keep the Neck Healthy in Shoulderstand

So you want to teach your students Shoulderstand, but you have some questions about this challenging pose. Is it necessary to use props? Is the posture safe for the neck? Roger Cole answers these questions and more.

By Roger Cole

Figure 1
The Neck in Shoulderstand

View in Detail

If you've ever practiced Salamba Sarvangasana (Shoulderstand) in an Iyengar-style yoga class, odds are the teacher asked you to support your shoulders on a stack of folded blankets or a similar prop, keeping your head at a lower level (see illustration). Yogis have been happily practicing Shoulderstand without this extra lift for several thousand years, so why did B.K.S. Iyengar come along and change the drill? Mr. Iyengar himself demonstrates the pose without shoulder support in his classic book, *Light on Yoga.* So why does he insist that most students do it with their shoulders elevated? There are lots of good reasons, but the most important is that it can protect the neck from injury. This article explains how teaching your students to support their necks can help them perform Shoulderstand safely and effectively.

The neck (cervical spine) has seven vertebrae. Flexible disks separate all but the first two. The disks create space for spinal nerves to exit between the bones. They also allow the neck to bend and turn. (For more on disks, see Protect the Disks in Forward Bends and Twists.) The vertebrae and disks are normally arranged so the back of the neck curves inward. When curved this way, the neck bears the weight of the head most efficiently.

Reinforcing this inward curve of the neck is a ligament (the ligamentum nuchae) that runs lengthwise down the back of the neck. This ligament joins the bony spines (spinous processes) that protrude from the backs of the vertebrae. The ligamentum nuchae is more elastic than most ligaments, so it tends to spring back after it is stretched. Therefore, if your student bends her neck forward, then returns it to neutral, the ligament helps restore the inward curve.

Shoulderstand bends your student's neck forward into flexion. The amount of flexion depends on how she does the pose. If she performs it flat on the floor, but rolls her weight backward so it rests on the back part of her shoulders and tilts her upper spine and chest diagonally away from her head, then she can balance quite comfortably without putting much pressure on her neck. This is the standard way to do the pose in some systems of yoga, and it is usually perfectly safe for the neck. If, on the other hand, your student does the pose with her shoulders and head flat on the floor but attempts to lift her spine and chest into a completely vertical position, pressing her breastbone strongly toward her chin, then she will force her neck into extreme flexion, using her entire body weight to apply pressure. A few people may

be able to do this safely, but most people's necks simply cannot bend this far without causing either subtle or obvious damage.

In a way, Mr. Iyengar may have inadvertently contributed to neck problems in Sarvangasana by pointing out that a truly vertical Shoulderstand is a more powerful and effective pose than a nonvertical one. As more and more people try to mimic Iyengar-style alignment in the pose without using the props he recommends, they run smack into their limited neck flexibility. It's not that a completely vertical Shoulderstand without support is a "bad" pose--in fact, it might be the ideal pose--it's simply that it is so extreme for the neck that only advanced yogis can do it without risking injury. By analogy, wrapping both feet behind the head in an extreme forward bend like Kurmasana (Tortoise Pose) is not a "bad" pose, but most people cannot do it safely. Because of the anatomical structure of the human body, a truly vertical Shoulderstand, performed with the head and shoulders flat on the floor, is a much more extreme pose for the neck than Kurmasana is for the lower back. Even those who can do it safely can usually do the pose better when they put support under their shoulders. So just about everyone can benefit from the lift, and most people truly need it.

What happens if your student forces her neck too far into flexion in Shoulderstand? If she is lucky, she will only strain a muscle. A more serious consequence, which is harder to detect until the damage is done, is that she might stretch her ligamentum nuchae beyond its elastic limits. She may do this gradually over many practice sessions until the ligament loses its ability to restore her normal cervical curve after flexion. Her neck would then lose its curve and become flat, not just after practicing Shoulderstand, but all day, every day. A flat neck transfers too much weight onto the fronts of the vertebrae. This can stimulate the weight-bearing surfaces to grow extra bone to compensate, potentially creating painful bone spurs. A still more serious potential consequence of applying excessive force to the neck in Shoulderstand is a cervical disk injury. As the pose squeezes the front of the disks down, one or more of them can bulge or rupture to the rear, pressing on nearby spinal nerves. This can cause numbness, tingling, pain and/or weakness in the arms and hands. Finally, a student with osteoporosis could even suffer a neck fracture from the overzealous practice of Shoulderstand.

Supporting the shoulders on a prop in Sarvangasana, with the head at a lower level, helps protect the neck simply by reducing the amount that it has to flex to achieve the pose. The prop opens up the angle between the neck and the body. This allows most students to perform a vertical or near-vertical Shoulderstand without neck strain. Nevertheless, the prop is not a panacea. You still have to take certain safety precautions when teaching the pose.

Give alternatives for special needs. Full Shoulderstand with the shoulders on a lift may not be safe for students with excessive neck or shoulder tightness, existing neck injuries, osteoporosis, obesity, or other issues. These students may need to do a modified Shoulderstand, an easier inversion such as Viparita Karani (Legs-up-the-Wall Pose), or some other alternative pose. One Shoulderstand modification that is often helpful is to support the hips on a chair in a way that takes most of the weight off the neck.

Make the prop high enough (but not too high) and firm enough. If your student is supporting her shoulders on a stack of blankets, make sure she uses enough of them (but not too many), and make sure they are not too mushy to provide stability.

Prepare the body. Practice poses that warm and stretch the back, neck, and shoulders before doing Shoulderstand.

Start out slowly. For example, it's a good idea to have your less experienced or less flexible students practice the pose with their back to a wall, walking their feet up the wall to lift the body.

Look out for balance. Students not accustomed to support props may find their balance precarious, especially if tight muscles force their elbows to lift up or move apart. Walking the feet up the wall can help with balance, as can extra props (like a wedge or rolled sticky mat under the elbows, or a belt around the upper arms).

Don't force. Don't try to make the neck bend farther than it is ready to bend.

Lift the chest toward the chin; don't pull the chin down toward the chest. Instructing your students to do this can help prevent them from tightening the flexor muscles on the front of the neck.

Don't sag the center of the neck. Because it's usually good practice to leave space under the center of the neck, rather than resting the middle of the neck on the support prop, encourage your students to lift the center of the neck toward the ceiling rather than letting it sag it into the space.

Don't turn the head. Turning the head in Shoulderstand dramatically increases the strain on the muscles, ligaments, and disks of the neck, so warn your students not to do it.

If you teach the pose without shoulder support props, don't bring your students fully vertical. In a "flat on the floor" Shoulderstand, discourage your students from forcing themselves straight up; instead, instruct them to rest their weight toward the back of their shoulders and jackknife the body enough to take pressure off the neck.

Take care with variations. Some Shoulderstand variations, such as Halasana (Plow Pose), put even more pressure on the neck than the standard pose, so use extra caution when teaching these.

Observing these cautions not only makes Salamba Sarvangasana safer, it makes it better. A good Shoulderstand is one of the most beneficial and enjoyable poses in yoga. Helping your students enter it safely is one of the greatest gifts you can give them.

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