Who’s Got Your Back?

Human backs are incredible structures designed to support our everyday tasks. Here’s how to keep yours healthy.

Composed of muscles, ligaments, tendons, disks and bones, the human back is a complex structure that is essential in supporting the body and enabling everyday movements. But because it is composed of so many intricate parts, the back is susceptible to aches and pains of varying intensity. Thankfully, most back pain is short-term, but the National Institute of Neurological Disorders and Stroke estimates that nearly 80% of adults suffer from low back pain at some point in their lifetimes. In fact, after headaches, back pain is the second most common neurological ailment in the United States.

Because back pain is so prevalent, back maintenance is paramount. That means eating a vitamin-rich diet, practicing proper lifting techniques, performing strengthening and stretching exercises and chatting with your doctor about overall health. For foodservice workers, however, back health can be something easily neglected. After all, the work environment—frequent standing, continual lifting, bending over work surfaces, carrying heavy and awkward items—is not particularly conducive to keeping someone injury-free. Plus, these daily tasks take a toll by...
weakening the muscles and ligaments in the back. For optimal quality of life, everyone—not just those who work in kitchens, on the serving line or in warehouses—should focus on maintaining back health.

BACK TO SQUARE ONE
Let’s do a quick anatomy lesson: Located on the posterior part of a person’s trunk, the back is composed of bones, muscles and other tissues located from the neck down to the pelvis. While the spinal column is the centerpiece, as it supports the upper body’s weight and protects the spinal cord, the rest of the back is equally important.

Traveling down the middle are the vertebrae, the 33 interlocking bones that make up the spinal column. Only the top 24 are moveable, while the nine vertebrae of the sacrum (the base that connects with the hips to form the pelvis) and the coccyx (the tailbone) are fused. Each vertebra has a small hole in the middle to create a channel that surrounds and protects the spinal cord. In between each vertebra is space for tiny nerves to emerge from the spinal cord, and pads of spongy cartilage (known as intervertebral discs) help maintain this space and allow for flexibility in the lower back region.

Ligaments and tendons help hold the vertebrae in place and attach muscles to the spinal column. There are three major spinal ligaments (the ligamentum flavum, anterior longitudinal ligament and posterior longitudinal ligament), which are strong, fibrous bands that help prevent excessive movement of the vertebral bones.

The two main muscle groups that affect the spine are the flexors and extensors. Flexor muscles are in the front of the body and include the abdominal muscles. Thanks to these muscles, we are able to flex, bend forward and control the arch of our lower back. The extensor muscles, which are attached to the back of the spine, allow us to stand and lift objects.

The spinal cord itself is incredibly intricate and vital for human life. Without a spinal cord, you wouldn’t be able to move any part of your body, and your organs would cease functioning. It’s hard to believe that an 18-in.-long cord that is no wider than your thumb is that important. Consider it the “information super-highway” that relays messages between the brain and body. The brain sends motor messages to the limbs and the rest of the body, which enables movement, while the limbs and body send sensory messages to the brain. (Touch a hot stove burner? That message from the hand is transported to the brain via your spinal cord.) Any damage to the spinal cord could result in a loss of sensory or motor function.

With that basic anatomy lesson, you can better understand and appreciate how crucial it is to keeping your back and spinal column healthy in a tough foodservice work environment.

BACK AND FORTH
For foodservice workers, a back injury could be one bad lift away. But occupational risk factors are not the only dangers. Other factors in developing low-back pain include age, fitness level, pregnancy, weight gain, genetics and even mental health. The back can suffer from numerous different injuries and issues, but the most common are those that result from a torn or strained ligament or muscle. These strains can happen suddenly or develop over time.

What’s the difference between a
strain and a sprain? Strains occur when a muscle is stretched too far and tears. A sprain happens when over-stretching and tearing affects ligaments. These injuries could result from lifting a heavy object, sudden stressful movements, poor posture, sports participation and exercise. These often don't cause long-lasting pain, but the immediate, acute pain can be quite severe and debilitating. Even those with stationary jobs, who sit at a computer for most of the day, could still experience pain problems—even if you have poor posture or sit in a chair with inadequate back support.

Chronic low-back pain—that which occurs in a sustained fashion for more than three months and exceeds the body's natural healing process—could be the result of a lumbar herniated disc, degenerative disc disease, a joint dysfunction, spinal stenosis (the narrowing of the spinal canal), spondylolisthesis (when one vertebra slips over an adjacent one), sciatica (compression of the sciatic nerve) or other issues. Less-common causes of lower-back pain include infection, kidney stones, tumors or even an autoimmune disease.

When pain occurs in the lower back, it's associated with the lumbar region of the spine. While upper-back pain is not as common, because the spinal movement in that portion of the back is incredibly limited, pain can occur anywhere from the bottom of the neck to the bottom of the rib cage.

NO BONES ABOUT IT
Osteoporosis is a bone disease that affects more than 200 million individuals worldwide. It's a condition that occurs when the body loses too much bone, makes too little bone or a combination of both. Bones become weak, and a simple fall—or even a mighty sneeze—could cause a break. Osteoporosis predisposes affected individuals to chronic low-back pain, and women are four times more likely than men to develop osteoporosis because of their lighter, thinner bones, as well as their longer life spans. Women over age 50 are at the highest risk.

When viewed under a microscope,
a healthy bone looks like honeycomb. But for someone with osteoporosis, the honeycomb shapes become larger, creating weaker bones. About 54 million Americans have osteoporosis or low bone mass (which puts them at risk for the disease). You can’t feel your bones weakening, so osteoporosis can sneak up on you. Breaking a bone can often unearth this condition—and every year, 1.5 million older Americans break a bone as a direct result of the disease.

Losing height—actually getting shorter—is a sign that you may have osteoporosis, because the spinal bones are often the first affected by the condition. Diagnosis can also be made through a bone density test. While osteoporosis cannot be reversed, it can be managed through lifestyle changes and medications. A boost of vitamin D and calcium through foods or supplements can help protect your bones and aid with overall bone health. Exercise and weight-bearing activities like walking, running and weightlifting help to maintain bone density, as can quitting smoking. Talk with your doctor to learn more.

### BACK IN THE SADDLE

Although back pain is common and associated with the inevitable aging process, problems can be alleviated, managed, prevented and even (sometimes) reversed, through a combination of methods. One effective way to prevent back injuries is to stretch regularly. As you stretch, you improve flexibility and loosen up tight muscles. This practice helps prepare the muscles and joints for extended periods of physical exertion, as well as for sitting and standing. Throughout your workday, sprinkle in stretch breaks to reinvigorate the muscles and work out any kinks.

Proper posture matters, too. Keep your head in line with your shoulders and keep your shoulders in line with your pelvis. Contract your abdominal muscles and buttocks, while ensuring your weight is evenly distributed on your feet. Cushy shoes or cushioning mats will help alleviate stress on the back.

### PAT ON THE BACK

The workplace-related consequences of back pain and problems can be extensive—loss of time and productivity, more serious injuries, risk of permanent injuries and worker compensation claims, to name a few. In fact, worker compensation claims from non-construction laborers in 2017 totaled more than 64,400—the largest number in private industry occupations. As the back is critical for everyday function—not just for workday tasks—it is imperative to practice healthy habits now, before back pain starts to creep up. SN

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