COHO FITNESS CENTER

Newsletter 2019

August

Table of Contents

@CohoFitness

COHO Fitness Center

Contact US

Phone: (202)482-0437

Email: cohofitness@teamcfw.com

Web: cohofitness.com

Be Well Aware – Health Article

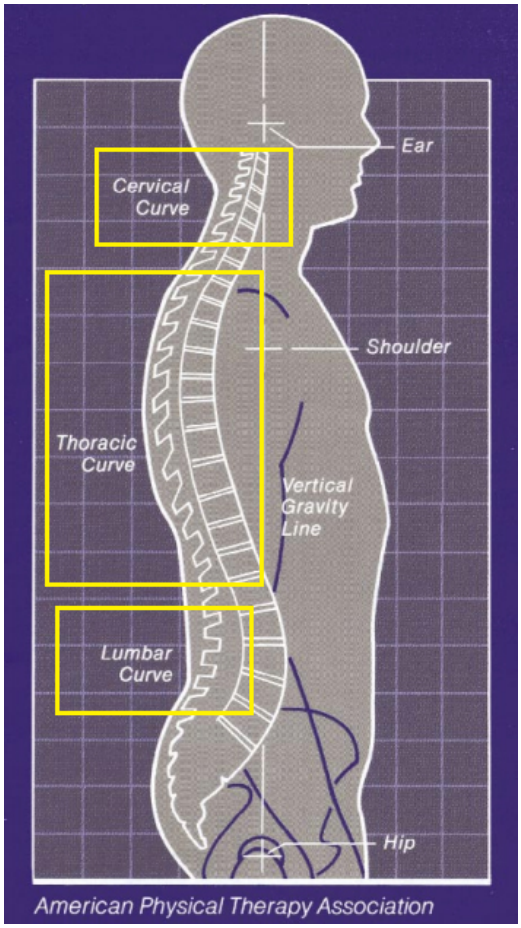
Understanding the Spinal Curves & Back Health

Natural Curves of the Spine

A healthy spine has a natural S-shaped curve when viewed from the side. This shape helps distribute the body's weight evenly, including during movement or exercise. This S-shaped spine can be broken down into three curves:

- The cervical spine curve, located in the neck, curves inward, keeping the head upright. An inward curve of the back is called a lordotic curve.
- The thoracic spine, located in the upper back, naturally has a outward curve, meaning the center of the curve rounds away from the body. An outward curve of the spine is called a kyphotic curve.
- The lumbar spine curve, located in the lower back, has a lordotic curve, similar to the cervical spine curve.

While a natural curve is healthy, any curve of the spine can be exaggerated in any plane, leading to pain, deformity, and disfunction. Some abnormalities may require surgery as treatment, but many can be prevented or improved through exercise.



Continued on next page…

What causes an abnormal spine curve?

Some abnormalities come down to genetics and can not be prevented. The most common cause of abnormal spine curvatures in previously healthy spines is poor posture.

The backbone is comprised of many small bones stacked on top of each other with disks in between. Because the spine is responsible for distributing where weight is being held throughout the body, it will naturally compensate for any imbalances.

Slouching in a chair, for example, puts tremendous stress on the body over time. People of all ages will immediately feel back or neck discomfort after sitting or standing for long periods of time. This contributes to the statistic that over one third of Americans over the age of 50 have chronic back or neck problems.

When one stands for a long period of time, the muscles that are "holding good posture" eventually get tired, and the body will naturally redistribute the body weight to lighten the load for those muscles. As muscles continue to tire out, the back continues picking up more of the load, acting as a counterbalance.

Standing is just one example. If you are in a position with poor posture, your bones are not properly aligned. If the bones are not properly aligned, the involved muscles, joints, tendons, and ligaments all take on more strain, often beyond their natural function.

Abnormalities and Exercise

The most common abnormality is lordosis, which often presents itself as an anterior pelvic tilt. This indicates that the abdominal muscles need strengthening to help even out the pelvis, instead of letting the lower back compensate and carry the load.

To improve lordosis in the lower back, start with core strengthening exercises that require you to keep the pelvis neutral. Examples include all plank variations, crunching exercises that involve no hip movement, or laying single leg raises.

The next most common abnormality is thoracic kyphosis, which is an exaggerated curve that the thoracic spine naturally has. It often presents itself as a rounded or hunched back.

To improve thoracic kyphosis, we need to strengthen the muscles that counteract the pull of the spine forward. These exercises would focus on thoracic extension, which is essentially the opposite of thoracic kyphosis. A great exercise to start with is a lying superman, with an emphasis of raising the chest off of the ground. Incorporating different variations of the back row will also help pull the shoulders back, which will reduce the forward pull on the spine.

The last common spinal abnormality is scoliosis. If you were to look at a healthy spine from the back, it should be s straight line down. With scoliosis, the spine has a sideways curve that could present itself as an "S" or "C" shape in either direction. While exercising is important to keeping scoliosis of the spine healthy, it's advised that you speak with a doctor, chiropractor, or physical therapist to determine what exercises may cause more harm than good.

References

https://wholeu.uw.edu/2016/07/01/natural-posture/
https://www.cedars-sinai.org/health-library/diseases-and-conditions/c/curves-of-the-spine.html
https://www.medicalnewstoday.com/articles/190940.php

Exercise of the Month

Thoracic Rotation

Purpose: Increase mobility through the Thoracic Spine (aka the T-Spine).

Target Muscles: The spinal erectors, rhomboids, middle trapezius, pectorals and latissimus dorsi all play a role in the movement of the T-spine. Typically, the pectorals and lats become short and tight, causing decreased mobility.

Equipment Needed: None.

Start/Movement: Set up this exercise by coming to your hands and knees. Align the knees under the hips; the wrists under shoulders.

- Start on right side by placing your hand behind your head, keeping the other hand down, and knees in place.
- Rotate and tuck elbow under your shoulder.
- Rotate the body open, bringing elbow toward sky, attempting to stack your shoulders.
- Try not to rock in hips, keeping them as aligned as possible.
- Repeat on this side 8-10 times before moving to other side.
- For a happy and healthy spine, try to incorporate this exercise into your daily routine.
- The goal is to reach 35 degrees of rotation on each side.

Modification: For an extra challenge try adding a resistance band and pulling it away from the body

Source: https://blog.nasm.org/ces/optimizing-thoracic-spine-mobility-with-corrective-exercise/

Health-Full Eating and Nutrition

Nourish to Maintain Healthy Joints

How does your diet affect joints?

Vitamins and minerals contain antioxidants that the body needs. Omega-3 fats have been discovered to reduce inflammation associated with some arthritis. When it comes to working out and everyday living, the body needs well-balanced nutrition to sustain the joints. Calcium is particularly important for bone health. There are several nutrition foods that can help you get enough calcium in your diet. Be sure to check out the National Osteoporosis Foundation link below for more about the daily intake of calcium and Vitamin D healthy required for healthy bones. (www.nof.org)

The overweight/obesity connection - A recent meta-analysis addressed the incidence of comorbidity related to overweight individuals and obesity. It was able to show that being overweight and/or obese lea to a significantly higher osteoarthritis risk. Obesity stems from poor diet and sedentary lifestyle. This can lead to misalignment of joints putting pressure on the cartilage causing injury.

Useful tips to keep in my mind

- **Desk job?** Get up and walk around every hour so you are not stiff or sitting for too long.
- **Sneak in healthy food**. Keep veggies **and** fruits – like celery and carrot, broccoli, pepper slices and melon – in the front door of your refrigerator so you'll reach for them at snack time.
- **Curtail your caffeine intake.** While you may need that extra burst of energy in the morning, try and resist those second and third cups of coffee. Studies show that the extra caffeine can weaken your bones.

Dietary Choices to Limit Joint Pain

Specific diets have been shown to reduce joint inflammation. Consult your physician before changing up your daily intake of nutrients. The Mediterranean diet has various health benefits, some of which seem to overlap those attributed to nonsteroidal anti-inflammatory drugs (NSAIDs). A Mediterranean diet consists of a high level of low-glycemic fruit, vegetables and legumes; a high level of unsaturated fats, especially olive oil, which has been shown to improve functional status and reduce joint pain. Sulphoraphane is an antioxidant compound found in cruciferous vegetables. Studies have found that it blocks an enzyme that causes joint pain and inflammation. In addition to aiding arthritis patients, it may be helpful for athletes who put a lot of pressure on their joints.

- Limit your sugar intake and try to choose natural sources such as honey or coconut sugar.
- If you are trying to lessen joint pain, avoid red meat, pork or lamb as it has trans fats and hydrogenated oils.

Diet & Lifestyle Checklist for Healthy Bones

- ☑ Consume at least 700 – 800mg of calcium daily preferably from natural dietary sources. If supplementation is needed to achieve this goal, choose a high quality calcium supplement with no more than 500mg calcium that also includes magnesium and Vitamin D3. Here is an example of a high quality calcium supplement with balanced magnesium and vitamin D.
- ☑ Choose grass fed, pastured meats, poultry, eggs, butter and ghee. They're high in Vitamin K2 and omega-3 fatty acids.
- ☑ Eat 8 – 10 brightly colored vegetables and 2 fruits daily. Eat the colors of the rainbow daily – ROY G BIV.
- ☑ Eat 3 – 5 magnesium rich foods daily.
- ☑ Take a Vitamin D3 supplement daily if serum Vitamin D levels are low.
- ☑ Eat 1 – 2 forkfuls of fermented foods daily. They are high in Vitamin K2 that is good for bones and they also contain high amounts of probiotic bacteria that are good for your gut microbiome.
- ☑ Drink 1 – 2 cups of green tea daily. The polyphenols support osteoblasts.
- ☑ Move your body daily including strength training, weight bearing and balancing exercises.
- ☑ Get 8 hours of quality sleep per night. Melatonin is needed for healthy bones.
- ☑ Eliminate or significantly reduce processed carbohydrates and Added Sugar. These are inflammatory and inflammation is bad for the bones.
- ☑ Eat 3 servings per week of low mercury, high omega-3 fatty acid fish. Check with your health care provider or Registered Dietitian Nutritionist to see if an omega 3 fatty acid supplement would be appropriate for you.
- ☑ Balance your stress - develop a daily meditation or HRV Biofeedback practice.
- ☑ Create balance in your life. Remove toxic relationships. Balance your work and play. Do joyful activities daily. Spend time outdoors daily.

References:

https://www.hopkinsmedicine.org/health/conditions-and-diseases/back-pain/lower-back-pain-what-could-it-be

https://www.health.harvard.edu/pain/simple-tips-to-protect-your-joints

https://www.arthritis.org/living-with-arthritis/pain-management/joint-protection/joint-health.php

https://www.nof.org/patients/treatment/calciumvitamin-d/

Jerosch J. (2011). Effects of Glucosamine and Chondroitin Sulfate on Cartilage Metabolism in OA: Outlook on Other Nutrient Partners Especially Omega-3 Fatty Acids. International journal of rheumatology, 2011, 969012. doi:10.1155/2011/969012