

Fall Health Update 2010

What's New:

1. **Sitting: Time to Get on the Ball?**
2. **Are You Shrinking?**
3. **All Pain is Not the Same**
4. **Vacation and Fee Schedule News**

Sitting: Time to Get on the Ball?

Most people these days spend a good amount of time sitting at their desk while working on their computer or performing paperwork. Sitting for long periods of time can be uncomfortable, so many workers look for alternatives to the standard office chair. One popular replacement for the chair is the gym ball.

These large balls can easily be found at your local fitness center or sports shop and are also referred to as Swiss balls, Physio balls, or exercise balls. A

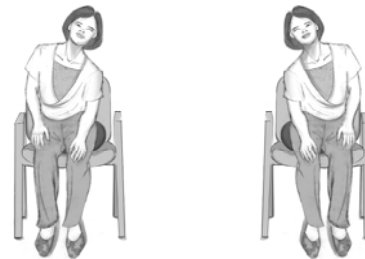


common size for these balls is 55-65cm in diameter. Some people try sitting on a ball that is free to roll around on the floor and others use a ball supported on a frame with caster wheels and a modest seatback, as shown here.

While some people really love to use a ball as a chair, most ergonomics experts (myself included) not do recommend long-term use of a ball as a replacement for a proper fitting chair. Studies show the advantages of using a ball chair while sitting are: greater muscle activity, more body motion, and a small increase in calories burned. The proven disadvantages are: just as much poor slumping posture, and *more* spinal compression, compared to a desk chair.

My personal recommendation for using the gym ball as a chair replacement has always been to sit on the ball only so long as you are able to maintain constant movement on the ball. That could mean

lightly bouncing up and down on it or rolling gently from side to side. Movement solves the problem of sedentary posture that comes with desk chairs, but the lack of a proper seatback on the ball means that when you stop moving around you are more likely to slump—and research supports that concern.



An alternative to the gym ball, to get some body movement while you sit, is to use a “sit disk” (a partially inflated durable rubber pillow) that allows you to pivot your weight around. The advantages of a sit disk are that you can easily place it on your existing chair and it doesn't take up much space.

The bottom line with sitting is that regular motion to offset prolonged static posture is very desirable, but the greatest percentage of your sitting time will necessarily be stationary. During stationary periods, a firm lumbar support is required to maintain the normal shape of your spine, keep the proper disc angles intact, and prevent slumping. And good lumbar support is a function of a well-fitting *chair*.

Are You Shrinking?

While we are on the subject of sitting, you will be surprised to learn just how quickly the spine gets compressed with sitting. Often sitting is associated with loss of the normal lower back arch, flattening of the discs, and height loss of the spine (shrinkage), and much of it happens within *fifteen* minutes.

Researchers recently used upright MRI and stadiometry (hyper-accurate measurement) to assess lower back (lumbar) discs after fifteen minutes of relaxed sitting. They found that the cross-sectional area of the discs, the normal disc angles, and the

height of the lumbar spine all significantly decreased. The height of the spine shrunk by 7mm (more than ¼ inch) within fifteen minutes. It's no wonder that people often get sore backs from sitting, but it is alarming just how fast the adverse effects on the spine start to show up.

How can you protect yourself from the dreaded spinal shrinkage? First, read the article above on lumbar support that helps to preserve disc angles and the normal shape of the spine. Second, there is an exercise the researchers tested that can recover much of the losses in lumbar disc and spine height.

The exercise is performed by placing your arms straight behind your back, *slightly* arching your back, and shifting a portion of your body weight back onto your arms. It's as if you were about to use your arms to push off out of your seat, but once you rock back a bit, you then hold that position for about ten seconds or so. The effect of the exercise is to decompress the lumbar spine and "stretch" the connective tissues between the vertebrae, including the discs. The upright MRI studies show that disc height, spine height, and sitting height are all increased after this exercise. So if you find yourself unable to avoid a prolonged period of sitting, at least you now have a way to unload your lower back and avoid spinal shrinkage.

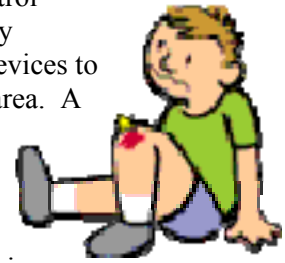


All Pain is Not the Same

I once read somewhere that pain "is a sign of actual or impending tissue damage." In that context, it means that pain is a useful warning sign. If you sleep with your neck in an awkward position and wake up in pain, or round your back out as you bend forward to reach something on the floor, and you get a jolt of pain, your body is sending you a useful message—don't do that again!

Acute pain can last a few hours (a stubbed toe), a few days (awaking with a stiff neck), or several weeks (threw out the lower back). Pain reminds you that injury has occurred (tissue damage) and that you need to be careful for a while during the healing process.

Successful strategies for acute pain are rest, ice and/or medications to control inflammation, and possibly supportive tape or other devices to help stabilize the injured area. A measured return to normal activity and progressive light stretches and exercises often help to relieve the pain and resolve the injury. And that is the natural course of events—it hurts less as it heals more.



Chronic pain, on the other hand, has no useful benefit. Re-injuring yourself repeatedly doesn't count as chronic pain, only pain that persists beyond the expected timeframe for healing without continual provocation on your part.

Chronic pain often represents an increase in the sensitivity of the nerve system as pain is triggered at a lower threshold than normal. Poor healing of an old injury may have caused an over-proliferation of scar tissue, accounting for chronic pain, as scar tissue is stiffer, weaker, and more sensitive than healthy tissue. It's worth checking for scar tissue in old musculoskeletal injuries that have been a source of chronic pain because treatments such as ART (Active Release Techniques) can be helpful in breaking down scar tissue fibrosis and relieving chronic pain in these kinds of cases. One example here is the interface between the adductor and the hamstring muscles that, when adhesions are released, can resolve stubborn recurrent hamstring tears or groin pulls in runners.



Vacation and Fee Schedule News

- We will be away from the office for Thanksgiving 11/24 to 11/28, December vacation travel 12/10 to 12/19, the Winter Holiday 12/24 to 12/26, and on New Year's Eve 12/31.

- Cigna PPO and American Specialty Health Plans HMO have significantly reduced their reimbursement rates for chiropractic care. If you have one of these plans, and need more time than a limited, basic office visit, you will need to reschedule subsequent visits or an extended office visit fee may apply. Thank you for your understanding in this matter. For the first time in a decade or more our non-insured and affinity plan rates will go up about 5% in 2011.

HAPPY HOLIDAYS HAPPY NEW YEAR!