

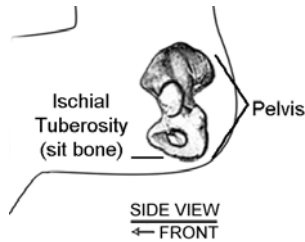
## Summer Health Update 2008

### In The News:

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### Those Knotty Hamstrings

The hamstring muscles, located on the back-side of the upper leg, can be troublesome for both active and sedentary people alike. There are actually three hamstring muscles—one on the outer and two on the inner aspect of each thigh—but they all attach to the same point of origin at the base of the pelvis on what is called the ischial tuberosity. The



lower ends of the hamstrings insert at the leg bones just below the knee.

Normal function for the hamstring muscle group is to pull your leg back (extend the hip) and to bend (flex) your knee. So the hamstrings are used by everyone, everyday, to walk, run, climb stairs, or just stand up from a seated position. Because people tend to sit a lot these days—while commuting, computing, eating, gaming, or watching TV—the hamstrings actually spend most of their time in a short or slackened position and are rarely stretched out through daily activities.

Eventually the hamstring muscles get tighter and shorter. When it comes time to fully lengthen them, like when performing a deep forward bend at the waist, or when walking or running at full stride, all of the sudden the muscles are required to stretch at their full functional capacity, which may have

become shortened because of prolonged sitting.

As the muscles are pulled on during increased activity, the hamstrings are not prepared to fully lengthen. Small tears can result within the muscle tissue or the surrounding fascial wrap. The small tears are filled in with scar tissue adhesions that are weaker, stiffer, and more sensitive than normal muscle tissue. It is this process, repeated over time, which leads to muscle “knots” and a progressively shorter functional length.

When a person with knotty hamstrings goes to bend forward, or to walk or run, because the muscles are tighter and shorter they will resist full lengthening and cause further problems within the muscles, at the tendon attachments at either end of the muscles, or with other body parts. Specifically, if the pelvis cannot tilt forward as you bend down because the hamstrings are pulling tight at their point of origin, the lower spine will have to bend more to compensate. Also, if the knee cannot fully extend while walking or running because the hamstrings won't let go when the leg tries to straighten out, heel strike of the foot and the shock absorption mechanism of the lower extremity will be compromised, stressing the feet/ankles/knees.

When a person with knotty hamstrings goes to sit, the hamstrings tend to pull from their attachment on the “sit bone” at the bottom of the pelvis, which tilts the pelvis backward at the top and rounds out the normal forward arch of the lower back. The results are far reaching, from compression of the lower spine to head



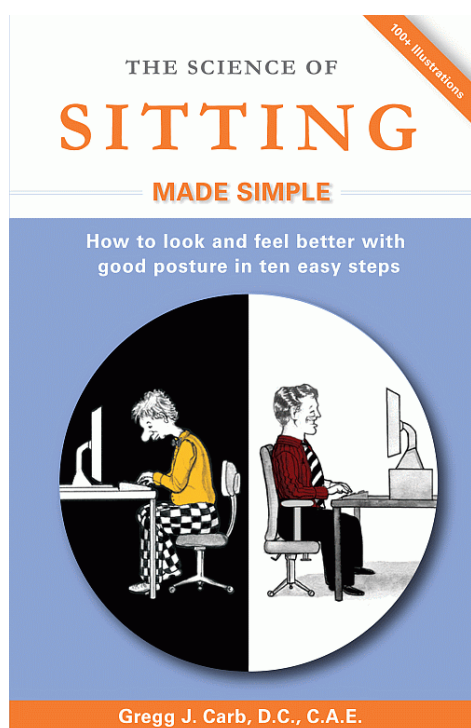
forward posture and back muscle fatigue. Effective treatment for knotty hamstrings must release the scar tissue adhesions to allow full lengthening of the hamstring muscles while in normal use and when stretching to maintain overall flexibility. ART, or Active Release Techniques<sup>®</sup>, is the method of choice for breaking up the fibrotic lesions that keep muscles knotty. ART is not just a treatment, it is a system of bio-mechanical analysis to direct therapy to the cause of the problem. Whether you are a



walker, a runner, or mostly just a sitter—don't put up with those knotty hamstrings!

## New Book Release

We are pleased to announce our September 15, 2008 publication of *The Science of Sitting Made Simple*. The book is all about sitting and posture, and what you can do to make yours better than ever—with as little time and effort as possible. The new book is 176 pages and has 100+ illustrations. Makes a great gift for the holidays at only \$14.95! Available at Amazon.com for pre-sale, with deliveries starting in mid-September.



## Back to the Lab

The last time most healthcare professionals had a chance to sharpen their anatomy skills with human specimens was probably when they were still in school. While books and DVD's are helpful for retaining a working knowledge of the complex structure of the human body through a virtual experience, there is nothing quite like the hands-on experience of the anatomy lab. A local Bay Area chiropractic college, Life West, recently started a Clinical Anatomy Review program to bring field doctors back to the lab to see, touch, and explore the body's musculature, fascia, nerves, joints, blood vessels, and skeletal system to refresh their anatomy IQ. It is one thing to read about the various conditions and diseases of the body and quite another to observe the pathologies first hand. With the exception of the odorous formaldehyde, I look forward to attending this program next month!

## Our Website

We have updated and expanded our website to include easy-to-understand information on learning about posture, winning the battle with back pain, posture research articles, and detailed descriptions of treatment at our office. Thus far we have added sections on ART soft tissue work, assisted stretching, and core strength with the gym ball. The ART section includes condition-specific information and photos of the treatment protocols. We intend to continuously add to the number of conditions and protocols posted on the website to show the far reaching number of nerve, muscle, and joint-related problems that can be successfully treated with ART. Take a few moments to check us out at [www.PosturePress.com](http://www.PosturePress.com).

## Last But Not Least...

I was informed in October 2007 that I had passed the Oxford Research Institute's C.A.E. (Certified Associate Ergonomist) examination. This program really helped to broaden my knowledge base of both office and industrial ergonomics and human factors. Now you know what C.A.E. means!