



Spring Health Update 2009

What's New:

1. Food Fight!
2. Pillow Talk
3. Back Exercises—Not About Power
4. The ART of Running

Food Fight!

Everyday our bodies have to do battle with the likes of free radicals, infectious agents, and abnormal cell groups. While that almost sounds like the plot of a spy novel, it is no fiction that life—at least from a biological perspective—is best defined as a constant struggle. Oxidation reactions, germs of all kinds, and cancerous mutations are daily occurrences we must defeat on an on-going basis to stay healthy.

As most of us well know, the foods we eat, or do not eat, can play a huge role in either supporting or sabotaging our bodies efforts to keep our immune systems strong, which in turn helps keep us resistant to disease.

Enter cruciferous (crew-**sif**-er-us) vegetables to the food fight against disease. The name comes from the word crucifer as the four petals of the flower from the cabbage family of plants make a cross formation. The edible



members of this family we are familiar with include cabbage, broccoli, kale, collard greens, cauliflower, bok choy, Brussels sprouts, watercress, turnips, and others.

These vegetables are naturally high in vitamin C, dietary fiber, and multiple nutrients with known anti-cancer properties such as sulforaphane and indole-3-carbinol. These nutrients have impressive cancer-

fighting capabilities your body should have in the daily battle against harmful elements such as radiation, pollution, and toxins.

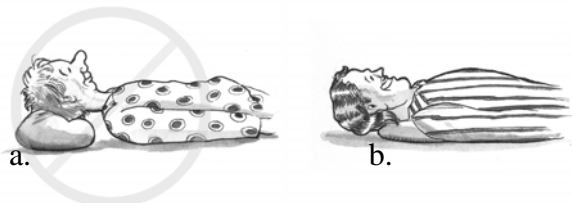
The government recommends you consume about three cups of vegetables per day. Try to make sure that three to four times per week those vegetables include members of the cruciferous food family to give your body a natural boost in fighting off disease.

Be aware that isolating and supplementing the micronutrients (vitamins) found to be high in whole-foods that *do* reduce cancer and cardiovascular disease rates have *not* been shown to give the *same* health benefits as eating the actual food source itself. I guess you just can't fool Mother Nature.

Pillow Talk

If you wake up with a sore neck on a weekly basis, it may be time to consider changing your pillow and/or your sleeping habits. As stated in *The Science of Sitting Made Simple* book, when sleeping on your back, support your neck, and when sleeping on your side, support your head.

Our requirements for support change with our position because when you are lying on your back, your head should be resting at about the same level as your back, but when lying on your side, you need to fill that extra space created by the width of your shoulders.



So, figure a. above is **incorrect** because the pillow under the head is pushing the head forward. This should be a familiar position to those people that slump at their desk all

day, and is one of the reasons why people develop a progressive forward head posture deformity. Figure b. is **correct** because the head is continuous with the alignment of the back and the neck is supported. If the head must be propped up due to sinus problems or snoring, the mid/upper spine should be sloped upward together with the head and neck.

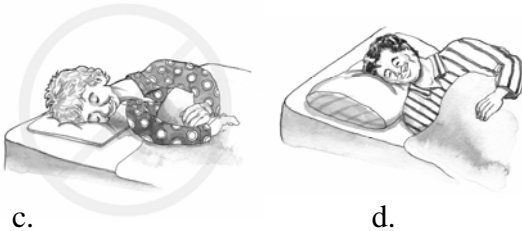


Figure c. above is **incorrect** because the chin is tucked forward and the pillow too shallow for side sleeping. Figure d. is **correct** because the head is fully supported and in line with the spine, just like in figure b. As you can tell, it is difficult for one pillow to do it all—correctly support the neck for back sleeping and the head for side sleeping.

I recommend using a neck roll while you are on your back and a larger pillow when you are on your side. An alternative is to use a soft pillow that you can shape under your neck for back sleeping and then bunch up under your head for side sleeping. Note that stomach sleeping was not mentioned as an option because you have to leave your head turned to one side for prolonged periods.

Back Exercises—Not About Power

Your back and neck muscles are primarily working to support your weight against gravity and provide postural stability. That kind of work requires a lot of *endurance*, not maximum force and speed. You only need about 10-25% of your maximum muscle contraction to provide stabilization of your spinal joints. Even if you double that effort for unexpected situations like slips and falls, or for routine physical chores, you still only need half of your maximum contraction for most all activities of daily living. It makes sense, therefore, to train the back and neck muscles for endurance.

Endurance exercises are of longer duration and lower effort than strength training, and can be done daily or even twice per day without a need to take time off for recovery. Check out our website under “Treatment at Our Office” for some gym ball exercises that help build back muscle endurance.

The ART of Running

ART, or Active Release Techniques, is an effective therapy for many nerve, muscle and joint problems in the body. ART is also a system of biomechanical *analysis* that helps direct treatment to the involved structures. Running is one sport that involves a complex chain of events in the body with plenty of opportunities for problems to arise.

Some common issues runners struggle with are tight and weak hamstring, quadriceps (rectus femoris), and/or adductor muscles. Another common problem is tightness of the lower back. Each of these problems may cause pain anywhere in the lower body and legs, or just poor performance. Here’s how these problems/structures are identified so they can be treated to help a runner’s stride:



Hamstring problems causing limited extension of the knee upon hip flexion (**correct** vs. **incorrect**)



Rectus problems causing limited extension of the hip upon knee flexion (**correct** vs. **incorrect**)



Adductor problems causing cross-over of the foot past the body midline (**correct** vs. **incorrect**)



Back rotation problems causing over-compensated arm swings (**correct** vs. **incorrect**)