

Healthy Living by Dr. Hansen

Diet, Exercise, Habits, and Pain

No matter what the source of pain, factors that can improve your functional status and decrease pain include diet, exercise, sleep and personal habits, and some supplements.

Smoking: increases risk of stroke, heart attack, and many forms of cancer. It also worsens arthritis and osteoporosis, both of which contribute directly or indirectly to pain. Degenerative arthritis in the spine (neck and lower back) commonly causes or contributes to low back pain, neck pain, and sciatica. We encourage you to quit if you smoke. Many resources are available to help you quit. You can call 1-800-QUIT-NOW to get started. You can go on the Internet and google "quit smoking" to find other sources of help.

Your Waistline: Extra weight distributed around your waist is called "visceral fat" or "visceral adiposity". This fat resides inside your abdomen around your intestines and other organs. The visceral fat contains fat cells and white blood cells called macrophages. These fat cells and macrophages continuously produce and release chemicals that cause inflammation throughout your entire body. This is like pouring gasoline on a fire if you have any arthritis in your spine or joints. This inflammation also increases the risk of heart attack, stroke, insulin resistance, and diabetes. Insulin resistance has been linked to heart disease, stroke, many forms of cancer, dementia, and chronic degenerative disorders. Ideal waist size for women is 32 ½ inches or less, for men it is 35 1/2 inches or less. Health is threatened by waist circumference greater than these measurements.

What you eat is as important as how much you eat. Only protein and fat suppress appetite. Carbohydrates increase appetite. All carbohydrates are digested and absorbed through the intestines as sugar. Sugar causes insulin release. Insulin causes sugar to be stored as fat. Any sugar in your blood that is not immediately burned for energy gets stored. A small but very limited amount can be stored as glycogen in the liver and muscles. Glycogen is a starch. But the rest gets stored as fat. If you want to lose weight you must reduce carbohydrate intake. Carbohydrates make you fat. Fat and protein do not. See the "nutritional program" section for recommendations on diet for optimal health and weight.

Sleep: Before the invention of the light bulb adults slept 9.5 hours per night. Most Americans are chronically sleep deprived. Inadequate sleep has been linked to depression, cancer, obesity, high blood pressure, diabetes, heart disease, stroke and chronic diseases. Inadequate sleep makes chronic pain worse. See the separate discussion on insomnia, sleep and tips to improve your sleep. Your bedroom must be completely dark, not even a night light or clock that emits light. Any light on your skin or your eyes suppresses melatonin production and that inhibits sleep.

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Exercise: Daily walking for 30 minutes per day and resistance exercises twice per week will help you achieve a healthy waistline, protect you from osteoporosis, decrease your blood pressure, fight depression and chronic pain.

Exercise: Regular exercise fights pain in a many ways

- Exercise increases the amount of naturally occurring circulating pain suppressing substances produced by your body.
- Exercise increases the natural lubricating fluid in your joints
- Exercise of specific muscles will increase the muscular support of your spine and joints and take some of the load off of your spine and joints.
- For low back pain, exercise of the core muscles that support the spine will stabilize the spine.
- Exercise and stretching will improve and maintain range of motion and will work against morning stiffness and pain with movement. If we become less active our muscles, ligaments and tendons get shorter and more painful to use.

Exercise tips:

- Exercise early in the day (preferably in the morning) because that increases your metabolic rate all day long. (You continue to burn more calories all day after you exercise)
- Walk 30 minutes every day. If your joints hurt then substitute stationary bicycle, Stairmaster, elliptical stair-master and other aerobic exercise machines that are "low impact". These are better than treadmill because they produce less stress on your joints and spine. If the weather is bad or too hot to walk outside, then walk in the Mall. Weight bearing exercise like walking fights osteoporosis.
- Do resistance exercise (light weights, resistance bands or exercise machines) twice per week for upper and lower body.
- Perform the basic spine core strengthening exercises every morning as soon as you wake up (it only takes 10 minutes)
- Yoga, Pilates, and Tai Chi are all excellent forms of gentle exercise and stretching.
- For seniors with very limited mobility there are exercise classes at the YMCA and senior center that are easy.
- Exercise in a heated pool is excellent for patients with spine pain and arthritis. The Redding YMCA has water exercise classes twice per day, 6 days per week.
- For seniors who have difficulty walking you can exercise at home in a chair. Watch "*Sit and Be Fit*" on local TV Channel 9. This program demonstrates exercises to do while sitting in a chair. Exercise daily while you watch the program and follow their instructions.

Dietary Supplements: Omega 3 fatty acids are substances found in certain foods that decrease inflammation and pain. Omega 6 fatty acids on the other hand increase inflammation. Our diets have become unbalanced with

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too much omega 6 and not enough omega 3. This has happened for many reasons.

- processed foods are filled with omega 6 fatty acids and the dangerous manufactured trans fats. (also called TFA, trans fatty acids)
- grains and vegetable oils are filled with omega 6
- when cattle are fed corn for 2 months on feed lots, the healthy inflammation fighting omega 3 from pasture grasses is replaced by omega 6 from corn.
- chickens fed grains in large chicken houses are filled with omega 6 (as well as antibiotics and hormones), but free-range chickens that eat bugs have omega 3 in their meat and eggs.

Good scientific studies have demonstrated that Omega-3 fatty acid (DHA and EPA) supplementation decreases pain from arthritis and reduces the risk of heart attack. Atherosclerotic plaque in arteries is stabilized by omega 3 supplements. Therefore the plaque is less likely to cause heart attack and stroke. Heart rhythm is protected and heart attack victims are more likely to survive.

The minimum effective dose to fight inflammation is 1200 mg of DHA + EPA. This requires taking about 3000 mg of fish oil per day (1/10 of an ounce). Most capsules have 1000 mg of oil. Take one capsule 3 times per day with each meal.

Although fish oil can thin the blood a little, it is usually safe for people on aspirin, Coumadin or Plavix. At these doses no complications of excessive bleeding have been reported.

Vitamin D-3. Vitamin D is not just a vitamin, it is a hormone necessary for many bodily functions. Vitamin D deficiency has been linked to osteoporosis, depression, obesity, hypertension, heart attack, and many forms of cancer and degenerative diseases. Many adults are deficient. 2000 units per day with food will produce healthy blood levels in 90% of adults. Occasionally more is required. Blood levels should be checked.