

Musculoskeletal Healing

NOTE: All NSAID anti-inflammatory drugs (such as Aspirin and Ibuprofen) can impair collagen healing, which would impact all healing musculoskeletal injuries. They also aggravate GI function by increasing intestinal permeability which inflames the immune system and promotes autoimmune diseases (including inflammatory forms of arthritis). It is better to avoid that class of drugs if possible. (**Tylenol** is a safer alternative for pain relief if there is no liver disease.)

The following 2 nutrients are especially helpful for healing musculoskeletal injuries, and can also help to prevent osteoporosis and to reduce cartilage damage in osteoarthritis:

Collagen Powder, 1 scoop mixed in fluid twice daily with meals. The body has several kinds of collagen, but Type 2 is more important for joints, and Types 1 & 3 are more important for ligaments, tendons, and bones. Read labels and avoid sweeteners & additives.

BioSil, 1 capsule or 5 drops twice daily with meals. Helps heal collagen fibers in ligaments and tendons, which are commonly damaged in musculoskeletal injuries, and are important for chronic neck and back pain. Bone is also made of 20% collagen fibers, which make bone tough and more resistant to fracture, so collagen healing is helpful in preventing osteoporosis. (*BioSil also helps growth of skin, hair, and nails, which is what it is usually marketed for; beauty sells.*)

If you have poor nutrition, other useful nutrients for musculoskeletal healing include **MSM (Methylsulfonylmethane), Hyaluronic Acid, Glucosamine, and Chondroitin Sulfate**.

Vitamin C helps wound healing and collagen formation. It is an excellent antioxidant, and high doses may be helpful in any condition with acute or chronic inflammation where high levels of localized oxidative stress can contribute to pain and interfere with healing.

Magnesium is a vital cofactor for hundreds of important enzymes in body chemistry including bone healing, and is increasingly deficient in modern diets. Magnesium helps to relax the nervous system, which is important in anxiety, panic attacks, insomnia, seizure disorders, and hypertension. (Calcium supplements compete against it and can cause more harm than good.) Magnesium can help to prevent kidney stones and to prevent abnormal calcium deposits in arteries and other places where calcium doesn't belong. (**Vitamin K2** also keeps heal bone and prevent calcium from collecting in the wrong places, the "calcium shepherd").

Other important dietary bone-healing nutrients include **Vitamin D3** (you could safely take up to 5000 units daily), and the trace minerals **Zinc, Copper, Boron, Manganese, and Strontium**, which are important enzyme cofactors for bone and collagen healing.

Don't expect immediate pain relief, because healing takes time (up to several months) and patience, and avoiding exacerbation from pushing activities too far too fast (**good ergonomics**, the positions and activities of daily living). **Manual therapy** (by a chiropractor or osteopath) can usually help chronic spinal pain. Dr Bradford can help you learn good ergonomics and some simple manual exercises to loosen muscle tightness (it's easy to make it worse by not realizing what you are doing wrong). Ideally you should address all 3 of these areas: **Nutrition, Ergonomics, and Manual Therapy**. If you are not improving over time, you are missing some of these steps. Ongoing pain means some changes are needed.