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Relieving Dowager's Hump Through Exercise

Older individuals with osteoporosis often develop **spinal kyphosis**, resulting in the formation of a **pronounced hunchback**, sometimes called a "dowager's hump" (kyphos means "hump" in Greek). Kyphosis occurs because a spinal vertebra, usually at the level of the rib cage, becomes weak and porous.

Eventually, something as innocent as a sneeze or cough causes the vertebra to collapse, a situation called a **compression fracture**. Compression fractures are not always painful and often go undetected. When only the front part of a vertebra collapses, the spine tips forward, putting additional strain on the other vertebrae, causing them to collapse too. Soon, a noticeable hump develops.

People with kyphosis often experience **muscle pain** in the neck, shoulder and back from the misalignment of the spine. They also have an increased risk of **falling** and, in severe cases, may have **difficulty breathing** because the lungs cannot fully expand. Our staff will be happy to provide guidance in these areas.

Another way to reduce pain, improve balance and reduce the risk of falls is through an exercise program designed to

- **strengthen the spinal extensor muscles**
- **increase flexibility**
- **improve spinal proprioception**, or the ability to maintain stability and balance

Age is no deterrent to beginning such an exercise program. A study conducted in 2009 by the Department of Physical Therapy and Rehabilitation Science at the University of California, San Francisco, showed that even 80-year-old women with kyphosis maintained gains in spinal strength, flexibility and physical performance one year after completing a 12-week **exercise program**.

Because people with kyphosis have weak bones and experience compression fractures, engaging in the wrong exercise can cause further damage. Your exercise program should be designed by a physical therapist who understands kyphosis and can determine, in consultation with your doctor, how you can **safely exercise**. We will be happy to talk with you about beginning a program that will strengthen spinal muscles and increase flexibility to minimize your kyphosis symptoms.

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Working Out with Exercise-induced Asthma

Another name for exercise-induced asthma (EIA)—**exercise-induced bronchoconstriction**—is more descriptive of what your condition actually involves: The passages that carry air into and out of your lungs become constricted when you exercise, resulting in asthma symptoms, such as wheezing, coughing, shortness of breath and chest tightness. These symptoms do not necessarily occur during exercise but usually begin within five to 20 minutes afterward.

Fortunately, several strategies will permit you to exercise even if you have EIA:

- **Work out in the water** (swimming or water aerobics) because humidity in the air you breathe will help prevent symptoms.
- **Avoid cold-weather sports** because cold, dry air can trigger asthma attacks.
- **Participate in team games**, which require only intermittent stretches of activity, instead of prolonged stretches of individual exercise.
- **Warm up** at a moderate intensity before your usual exercise.

If these strategies do not reduce your EIA symptoms, medications may prevent their development. To open your lung passages in advance, your doctor may suggest that you use an **inhaled bronchodilator** before working out. A puff or two of albuterol (a short-acting beta-agonist) or of salmeterol (a long-acting beta-agonist) with the corticosteroid fluticasone, for example, helps many people. If that is not sufficient, daily medication to keep your asthma under long-term control may work.

Another possibility is that specific allergens are causing or worsening your EIA. Talk to your doctor about whether this might be the case, and determine if **allergy-desensitization injections** might help. Given over the course of several years, such shots help your immune system react less violently to allergens.

In consultation with your physician, we will be happy to design workout routines that take both your fitness goals and your EIA into account.

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Lifting Weights Following Breast Cancer Surgery

In the past, breast cancer survivors were told not to lift anything even moderately heavy—not a bag of groceries, not a suitcase, not their children. They also were warned against using their arms strenuously—no scrubbing floors or raking leaves.

The thinking behind these prohibitions was that exercising the arms could increase the chance of developing or exacerbating **lymphedema**, a painful swelling caused by a **buildup of lymph fluid**. Most likely to occur in women who have had underarm lymph nodes removed or damaged by radiation as part of their cancer treatment, lymphedema can develop at any time—even years—after cancer treatment.

In 2009, Dr. Kathryn Schmitz led a study at the University of Pennsylvania that suggested such prohibitions may have been too restrictive. The authors looked at breast cancer survivors with stable lymphedema. Half the women were enrolled in a controlled weight lifting program that met twice a week for 13 weeks while the other half did not exercise at all. After one year, the women who lifted weights experienced significantly **reduced symptoms of lymphedema**, compared with those women who did not exercise. The weight lifters also gained upper body strength.

These results do not mean that breast cancer survivors should ignore what their doctors have told them about heavy lifting. The women in the study began by lifting only one to two pounds and added weight only under **strict supervision**. What the results do suggest is that controlled resistance exercise may help breast cancer survivors with lymphedema relieve the symptoms and prevent the condition from worsening.

However, Dr. Schmitz noted that weight lifting by breast cancer survivors is not a do-it-yourself proposition. It is essential, she said, for women to "work with a **well-trained certified fitness professional** to begin weight training. Do not try to start this kind of program on your own. Train with a physical therapist or a certified fitness professional who specializes in lymphedema or works with cancer patients."

Our experienced staff will be happy to work with you and your doctor to develop an exercise program to improve your postcancer lifestyle, resume as much of your routine as possible and avoid the symptoms of lymphedema.

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Should You Lose the Shoes?

A 2010 Harvard University study suggested that running barefoot can **reduce the risk** of running-related injuries. These findings have many people wondering if they should get rid of their classic running shoes. The barefoot runners actually wear a sock-like shoe called "Five Fingers."

Runners who wear shoes tend to hit the ground on their heels with a more powerful force. Barefoot runners, on the other hand, have a **springier step** and land toward the middle or front of the foot. With heel injuries common in runners, a transition to barefoot running could benefit some people.

While our feet are designed to absorb the intense impact from running, it does not mean you should throw out your shoes just yet. The footwear itself is not necessarily the problem; it is the way people change how they run to accommodate their shoes. Newly developed footwear better **mimics the way** our feet strike the ground when we run barefoot.

If you are used to wearing "fancy" footwear, a better transition might be to wear less constrictive shoes. It is important to recognize that if you are able to run comfortably using your present shoe type, you may be best served by continuing to wear them, rather than attempting to alter what has worked for you.

If you do choose to run barefoot, we can help you make the transition safely and successfully. Barefoot running can require more force from the calf muscles, and the Achilles tendon may be stretched. See us for a program of exercises designed to provide **greater strength** in these areas.

We will also work with you to reduce running injuries and find the best form and footwear to help you get the most out of your runs. And we can teach you the correct running technique, whether you choose to wear shoes or not.

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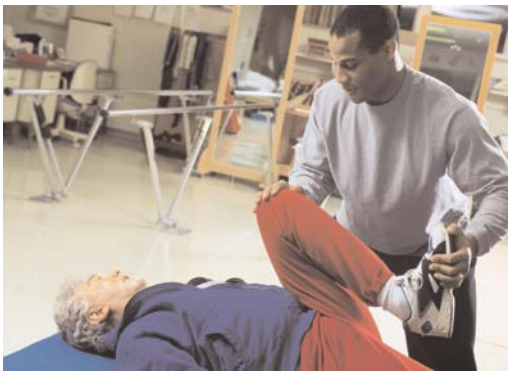
Lubricating Your Arthritic Knee



A decade ago, individuals who had osteoarthritis of the knee were limited in their options for treatment: anti-inflammatory medications, cortisone injections, reduced activity or surgery. **Viscosupplementation**, a relatively new treatment involving injections of a lubricating substance called hyaluronan, has become available for patients who suffer from this painful condition or who are unable to tolerate nonsteroidal anti-inflammatory drugs.

In a healthy knee, the bones smoothly glide over each other, thanks to shock-absorbing cartilage and lubricating synovial fluid. Patients who have osteoarthritis often have less synovial fluid than normal. When the cartilage breaks down and the gel-like synovial fluid deteriorates, you end up with the **pain and stiffness** of osteoarthritis.

In viscosupplementation, an injection of hyaluronic acid (a substance naturally present in that precious synovial fluid) can **boost the production of synovial fluid**, **increase joint mobility**, **offer pain relief** and **reduce inflammation**. These injections go by several brand names, including Synvisc, Orthovisc, Euflexza and Hyalgan.

While viscosupplementation is not a "cure" for osteoarthritis, some studies have found that these injections can reduce pain and improve function for up to 26 weeks. If you are trying to avoid knee surgery, and other treatments have not alleviated your pain, viscosupplementation might be worth a trial. In fact, a 2008 Canadian study suggested that these injections, together with a **strong physical therapy program** and additional medications, could treat the pain and stiffness of osteoarthritis just as effectively as knee surgery.

Viscosupplementation can certainly work hand in hand with your physical therapy. The injections may improve function and comfort in your knee, so that we can build strength and flexibility in the affected joint through exercise—which is a tried-and-true (not to mention a safe and natural) way to treat osteoarthritis.