Osteoarthritis and joint pain

Q My mother has been diagnosed with osteoarthritis. She is only 45, which seems young for this condition. At what age do people usually get it and how is it caused?

A Frederic J. Vagnini, MD: Osteoarthritis is a pathological change of joints that often occurs in cartilage, the sticky slippery tissue that covers the tip of the bone at the joint. Healthy cartilage allows the bone to move smoothly and absorbs concussions produced by the body's movement. In osteoarthritis, not only is the cartilage surface injured, it can also gradually wear out, causing the bones to grind against each other and resulting in pain and swelling. The joints may even lose their ability to move, and damaged joints may gradually deform. As the disease progresses, and in more serious cases, osteophytes grow on the edge of the joints. In these joints, bone or cartilage will gradually peel off and hang in the space between the joints, causing more pain and loss of mobility.

Osteoarthritis often starts in people around 45 years old or older, so your mother is not really too young to suffer from this disease. More than 50 percent of people over the age of 65 will suffer from osteoarthritis in at least one joint, and for people in their seventies and eighties the rate can reach as high as 70 percent. Currently there are over 20 million people in North America suffering from osteoarthritis. Although the main cause is the long-term use of the joints, continuously rubbing together under pressure from carrying heavy loads, osteoarthritis can also occur in patients much younger, most often due to joint injury.

Carbohydrates and your children

Q What are good and bad carbs for growing kids?

A Joey Shulman, DC, RNCP: Due to energy demands and rapid growth spurts, a child's body relies on
complex carbohydrates as the primary source of fuel. Approximately 50 percent of a child’s total daily caloric intake should be derived from carbohydrates, with another quarter from proteins, and the remaining from essential fats. The key is to feed your child the right type of carbohydrates and eliminate the ones that can trigger weight gain, mood fluctuations, and fatigue.

The “bad” or simple types of carbohydrates are those that have been refined and processed, such as white flour and sugar products. These include candy, juice, pop, white bread, white pasta, muffins, cookies, and crackers. These food items have a high-glycemic index rating, meaning they enter a child’s blood stream at a high speed and elevate blood sugar rapidly. In response to this rise in sugar, a child’s body will secrete the insulin hormone from the pancreas. Insulin facilitates the uptake of blood sugar from the blood stream into the cells. Problems arise when a child continually eats the “bad” types of carbohydrates. The body responds by secreting more and more insulin. Excess insulin secretion is stored as fat and can cause hypoglycemia (low blood sugar), moodiness, fatigue, and can suppress the immune system function.

The “good” or complex types of carbohydrates are those with a lower glycemic index rating such as fruits, vegetables, whole grains, and legumes. These provide maximum nutrition and do not cause a fluctuation in blood sugar levels. To ensure your child is eating enough fresh food, keep chopped fruit and vegetables in the fridge. As well, visit your local health food store and ask about a natural fruit and vegetable supplement to add to a morning shake.

Running away from knee injuries

Q I have started running as part of my New Year’s resolution, but I am worried I will injure my knees. How can I avoid this?

A Rick Ruegg, PhD, DC: Knee injuries are often encountered when starting an exercise program. The knee is a major wear-and-tear joint that can be adversely affected by poorly fitted equipment or overuse.

The first rule when starting a new exercise program is not to overdo it—start slowly and proceed with caution. Ten or 15 minutes on the first day will give you an indication of how quickly you can progress. Invest in good walking or running shoes. If you have problems with your feet or ankles, have these problems assessed before you begin your program. Because the joints of your feet and ankles are an important component in the kinetic chain, foot and ankle problems will sometimes manifest as a knee problem first.

Finally, good flexibility and a full range of motion in all the lower limb joints will help you avoid injury. Ask your chiropractor or other health care professional to show you specific stretches for your calves, glutei, thighs, and hips.