Just So You Know

Truth or Myth: Does Running cause Arthritis?

Have you ever found yourself defending running to someone who insists you are doing more damage than good to your body? Have you ever wondered yourself if you will be "confined to a wheelchair" in later years? And who's to blame you for this line of thinking! After all, osteoarthritis (OA) is commonly linked to developing from "wear and tear" on the joints. Isn't running a prime candidate then with all the pounding we place on our joints? This is the question indeed. Many claim to have the answer to this…most being non-runners. The truth is--it's a very controversial subject.

Unfortunately, just about every aspect of arthritis is clouded by uncertainty, misinformation and myth, including how to define it, what causes it, how to treat it and how to predict its course. And misunderstanding about the potential causes of arthritis can lead to bad decisions about treatment/prevention…like not running.

So what do we know?

People engaged in sports are often associated with having an increased risk of osteoarthritis in the joints they use most. The truth-of-the-matter is that most people with arthritis have other factors contributing to the problem. Here are some of the common risk factors associated with arthritis:

What is Osteo-Arthritis?
The degeneration of the cartilage which absorbs shock, distributes stress and allows the joints to glide smoothly.

- **Genetics:** Family history can contribute to the cause of arthritis. How much is yet unknown.
- **Age:** Cartilage can wear down over time, becoming thin, cracked, or even wearing through.
- **Previous Injury:** Sustaining injury to a joint increases the odds for OA in that joint.
- **Weight:** Excess weight places more pressure on joints.
- **Occupational Hazards:** Jobs that require repetitive use of a body part can lead to a higher risk.
- **Some High-Level Sports:** Due to increased nature of twisting forces and high impact, which can create greater stress in certain areas of cartilage.

Although the cause of osteoarthritis is uncertain, one thing that is proven to help *and* is an essential treatment of arthritis patients: Exercise. Moving your joints daily keeps them fully mobile and healthy. Studies have shown that cartilage actually thins and becomes more fragile with inactivity, therefore increasing the risk of arthritis. What keeps your joints healthy is a nutrient rich fluid called synovial. Movement accelerates the flow of this fluid where inactivity tends to inhibit it. In fact, people who exercise often are less likely to develop the condition than inactive people.

Truth Un-folded

How does running fit into the picture? Does running in-fact "ruin" the joints? While it's true the impact on joints from running is considerably high, there is little evidence running *by itself* leads to arthritis. The preponderance of data seems to indicate moderate levels of running do not increase risk of OA for healthy people and *that it also may have a protective effect*. Imagine that! According to Marybeth Crane, a podiatrist who specializes in sports medicine biomechanics, "For normal joints, there is no scientific evidence that simply the action of running, even over a long period of time, causes permanent joint damage or even a predisposition for OA." She explains that our bodies adapt to stresses of running when properly trained, and we become stronger with each run, allowing our ligaments and muscles that support the joints to handle the long-term stress better. This, in turn, helps ward of the disease. Besides the increase in the synovial fluid to the joints keeping them lubricated, the joints are better able to remain stable and stay in perfect alignment, causing less damage.

This is reinforced by Amby Burfot of Runner's World ("Does Running Cause Arthritis?", August 2004), who states our body is a biomechanical system, not a mechanical one, and that it is designed to repair and strengthen itself, becoming stronger the more we use it. She sites an ongoing study conducted by the Fifty Plus Runners Association in which runners over 50 were tested against non-runners to determine whether their joints showed signs of deterioration. The study determined that the runners experienced 25% less musculoskeletal pain than the control group.

Not convinced? Consider the studies presented in this on-line article written by Dan Wnorowksi, M.D., ("Running and Arthritis."< www.genufix.com/running_and_arthritis.htm>):

"1995: Panush, et al, in "Is Running Associated With Osteoarthritis? An Eight Year Follow-up Study", *conclude that runners with "reasonable" exercise levels had no increase in risk of arthritis*, after reviewing detailed histories, exams, and X-rays in an update of a 1984 study of the same cohort. 1993: Lane, et al, in "Risk of Osteoarthritis With Running and Aging: Five Year Longitudinal Study", looked at older runners (age 50-72), *and noted no acceleration of degenerative joint disease in runners versus controls*, similar to their previous study in 1989. 1990: Konradsen, et al, also evaluated a possible association between long-distance running and OA, via retrospective evaluation of former competitive runners who ran 20-40 kilometers per week for 40 years average, versus sedentary controls. *They found little to no risk of OA with lifelong long distance running*[7] "

Bottom line is that the "wear" of running appears to be okay and even beneficial in the fight against OA. However, it should be noted some studies suggest there is an increased incidence of arthritis in runners who performed high mileages and fast training paces, mostly at the elite level. According to A. Lynn Millar, a professor of physical therapy, specializing in therapeutic exercise for several conditions including arthritis, "Studies indicate that the relationship between the risk of developing arthritis and running appears to be a U-shaped curve. There is a ***slight*** increase in risk at high levels of running, moderate levels may actually provide some protection, and on the other end there is increased risk of arthritis from lack of activity."

The Controversy

While running itself doesn't increase the risk of developing OA, running injuries can--especially when you delay treatment or rush recovery. The good news is that running does not typically involve fast, sudden stops/starts, twisting and sharp turning, which can lead to major joint injuries more indicative of causing arthritis in later years, such as ACL tears and torn meniscus'. This, in part, makes running one of the safer sports.

Most acute injuries in runners are from overuse and poor biomechanics. Both which are preventable and treatable with no long-term effects if proper methods are taken. Sports injuries are most commonly caused by poor training methods, structural abnormalities, weakness in muscles, tendons, ligaments, and unsafe exercising environments. If an injury is not properly cared for, the non-healing of it can cause the degenerative process to start in the joints. In addition, running while injured can promote poor body mechanics, functioning as a major contributor to chronic injuries. According to Steven L. Haddad, M.D., associate professor of clinical orthopedic surgery at Northwestern University's Feinberg School of Medicine, "Arthritis can occur because of uneven mechanics of the joint. If your joint is shifted and it's even one millimeter off, it increases the stresses placed on that joint by 42 percent. This incongruity of the surfaces leads to an erosion of cartilage."

Hence, it appears the true cause for concern comes from the "tearing" or injury that can occur from running. To reduce your risks of OA, it's important to be properly conditioned, not only in stamina but strength and flexibility.

Tips to avoid arthritis:

- Strength train to help joints absorb shock from running.
- Maintain a healthy weight.
- Warm up and cool down to prepare body for running.
- Stretch to maintain flexibility.
- Wear good shoes to ensure proper cushioning; for excessive pronation, consider orthotics.
- Train on soft surfaces as often as possible.
- Don't ignore pain. Ignoring the early warning signs of a small problem can lead to a much larger problem down the road.

It is important to keep in mind the additional benefits achieved through running, which aid in not only fighting arthritis, but many other health conditions such as cardiovascular disease, depression, weight control, improving bone density and decreasing mortality. So be smart, and you can live a long and healthy, pain-free life.

If you have any questions or topics in which you would like to find out more about, please contact me at: dwood5555@gmail.com. Stay tuned for the next bimonthly Just So You Know article.