When Good Joints Go Bad

(It's often assumed that 'arthritis' is a natural part of aging and we can't pinpoint a particular cause. Wear and tear they say. I wanted the readers to appreciate that we DO have a good understanding of what causes 'arthritis'. When the problem is one of bad function, there is much can be done to make joints work better and feel better.)

It can happen quickly. Or it can happen oh so slowly and gradually over a very long period of time. Or - it doesn't happen at all.

Arthritis . Literally the inflammation of a joint. When tissues are damaged acutely by trauma or infection or an autoimmune disease such as Rheumatoid Arthritis all sorts of structural changes and defects of function are possible. However, most cases of arthritis are determined to be Osteoarthritis AKA degenerative arthritis or simple wear and tear. But, contrary to what the name implies, it most certainly is NOT an inevitable part of aging. Perfectly functioning joints do not just wear out over time. Under certain circumstances though, they can and do go bad. Hips and knees are most commonly affected. The smooth joint surfaces become pitted and cracked and thin , bone spurs form at the margins and it hurts!

So what causes this degenerative process? Why do some joints fail?

Let's first take a step back and look at joints in general. Anywhere there's a need for movement there's a joint. Some are fibrous and tough, allowing only a small range of motion - like the sutures connecting the plates of your skull. Spinal discs are a type of joint that is spongy and shock absorbing, made of a very fibrous type of cartilage wound around a gel centre. But most of our joints are the synovial type and are much more complex in their structure and function.

Synovial joints come in different shapes with special features, depending on what they do. The ball and socket joint of the hip is deep and stable while the shoulder joint is shallow and mobile. Hinged joints (knees and fingers) have a completely different design, as do facet joints (spine) , pivot joints (elbow) and saddle joints (base of the thumb) but they all share common features. There is a narrow joint space and shiny, smooth hyaline cartilage covers the ends of each bone. The two ends are held closely together by a joint capsule. It's outer layers of tough collagen fibres are organized in bundles to form ligaments and the innermost layer is the synovial membrane which secretes a slippery fluid to lubricate and nourish the cartilage.

Tendons and muscles span opposing sides of a joint and nervous control of contraction (shortening) and relaxation (lengthening) of these muscles creates motion – bending or straightening the angle between the bones. A magnificently coordinated action and reaction of muscles around our knees and hips not only makes our gait smooth but

also 'puts on the brakes' at just the right moments so as to prevent jarring of the cartilages each time our foot strikes the ground.. Each joint is shaped and controlled in unique ways, all designed to load the cartilage just right with the forces of impact and motion.

What can go wrong? Sprain injuries that cause damage to ligaments are often the instigating factor – when they cannot properly check the motion of a joint's end range, the cartilage is subjected to forces it was not designed for. But most of the time the problem is with the muscles and what's going on at adjacent joints. Chronic sitting and a lack of proper stretching lead to unbalanced function. Some muscles become constantly shortened, others lose their strength and it is that beautiful hyaline cartilage which pays the ultimate price for bad use , degrading over time with faulty loading.

More than 100,000 joint replacement surgeries are performed in Canada each year and the numbers are rising. The results can be truly remarkable and life changing but wouldn't it be better to avoid that path altogether?

What can you do? Keep your weight at a healthy level and see your Chiropractor for a thorough assessment of the alignment of your spine and pelvis and peripheral joints. They can help if you need any adjustments to improve muscle and joint function and will recommend specific exercises to help you reestablish better balance .

Joints that are working right stay good for life!

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