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# Heart to Heart

With Philip S. Chua, M.D.

## Arthritis Pills Notice!

Arthritis sufferers around the world have been enamored with the “breakthrough anti-arthritis” over-the-counter medications popularly known as Glucosamine Hydrochloride and Chondroitin Sulfate (GH-CS) since they were introduced a few years ago. Physicians, including rheumatologists, worldwide have been prescribing them to “satisfied” patients, which, in the United States alone, number to about 40 million Americans. This US figure is expected to reach 59 million by year 2020. In general, 50% of people who are 50 and older have some form of osteoarthritis.

A major US government-funded research has recently released a surprising report on these two very expensive Glucosamine and Chondroitin medications (which were originally approved by the US-FDA) that will dramatically impact on the care of countless patients with arthritis who are on these drugs around the globe. There were 1583 people in the study conducted by the University of Utah School of Medicine and participated in by 15 other university medical centers.

### What is the cause of osteoarthritis?

The condition commonly known as arthritis is osteoarthritis (“osteo” means bone, “arthro” means joint, and “itis” means inflammation) which is caused by daily wear and tear of aging, or of repeated trauma (as in sports) and is characterized by a general breakdown of the cartilage (collagen cushion) in the joints, leading to pain and stiffness. One theory implicates the immune system. As a person gets older, he/she loses some of the joints’ proteoglycans (which makes the cartilage more resilient to pressure and weight-bearing). The cartilage deteriorates and thins out, reducing the shock-absorbing protection for the joints so the joints get eroded. The inflammatory component is minor, compared to that in rheumatoid arthritis. Majority of arthritis we hear about is osteoarthritis. Other causes include metabolic diseases, infection, immune system malfunction, arterial blood supply deficit, etc. Most mammals suffer from arthritis in old age.

### What is cartilage?

**Cartilage is a connective tissue that holds joints together like a biological glue. It is made of about 70-80% water, 10-15% collagen fibers, 5-10% proteoglycans (glycosaminoglycans), and other proteins. The glycosaminoglycans are made up of chains of chondroitin-sulfate disaccharides. The cartilage acts a cushion, a shock-absorber, between two bones, thus preventing them from grinding against each other and wearing down faster. The proteoglycans gives it the ability to withstand heavy loads, compression under heavy weight and re-expansion to its original dimension when the load is removed. Just like shock-absorbers in vehicles!**

## **Is osteoarthritis the same as osteoporosis?**

**No. Osteoarthritis involves the joints (where two bones meet, with a cartilage in between), like the elbows, knees and fingers. Osteoporosis is thinning of the bones as a result of a loss of calcium and other minerals that make up the bones. It is not infrequent to see patients, especially women, suffering from both ailments.**

## **Does wearing high-heeled shoes cause osteoarthritis?**

**Yes, it has been shown that wearing high-heeled shoes can cause osteoarthritis. High heeled shoes alter the forces at the knees, thigh bones and hips and predispose the joints to osteoarthritis. Any trauma to any joints can cause osteoarthritis.**

## **What did the new study on the GH-CS pills show?**

**The US government spend multimillion dollars annually to scientifically scrutinize the minimally-regulated \$20 billion-a-year herbal or alternative drug industry. While some patients swear by the efficacy of these drugs, this new study, conducted by the 16 renowned US university hospitals, overwhelmingly showed that these two very expensive arthritis pills “did not do better than dummy (placebo) pills at relieving arthritis pain.” Earlier this year, a study showed negative findings for Saw Palmetto, a herbal drug, to treat prostate problems, and last July 2005, the same adverse problem with Echinacea as a treatment for common cold. And similarly, the same disappointing findings for St. John’s Wort for therapy for major depressions and for powdered shark cartilage as a substance for the treatment of some cancers, as advertised.**

**The current trend of medical practice now relies heavily on evidence-based medicine. For the past century, physicians have been more scientific and getting away from things like TV Doctor Marcus Welby saying, “I’ve used snake oil for years and it’s the greatest thing around.” Physicians today are generally skeptical about alternative or herbal drugs until after they are proven safe and effective by the scientific community and approved by the US-FDA.**

**However, in spite of all the advanced scientific information we have today, the unsuspecting (ill-informed?) consumers continue to spend a lot of their hard-**

**earned money and fall victims to dishonest advertisements and marketing fraud, especially in the area of the so-called “food supplements” and the unproven herbal and alternative drugs. And the eventual tragedy of it all is that, besides money going down the drain, these items unapproved by the US-FDA could even cause the body organs irreversible harm in the long term. By then, obviously, the damage is done and it would be too late.**

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