

Heart Disease Benefits Chondroitin & Glucosamine

“The British Medical Journal shows glucosamine reduces cardiovascular disease events by 15% and reduces cardiovascular disease deaths by 22%.”

Most of us are familiar with the use of glucosamine and chondroitin sulfate for joint repair, but new research adds longevity to its benefits. A May 14, 2019 study from the British Medical Journal shows glucosamine reduces cardiovascular disease events by 15% and reduces cardiovascular disease deaths by 22%. Senior author, Lu Qi, MD, PhD, from Tulane University School of Public Health and Tropical Medicine and colleagues used data from 466,039 UK Biobank participants, without baseline cardiovascular disease, who completed a questionnaire on regular supplement use, including glucosamine. In all, 19.3% reported glucosamine use at baseline. After a median follow-up of 7 years, there was a reduction of:

- 15% for total CVD events
- 22% for CVD death
- 18% CHD - cardiovascular heart disease
- 9% for stroke

Patients who were identified as glucosamine users took it more than 4 times a week for more than 3 years. The dose and kind of glucosamine were



not identified. And yes, this is a prospective study based on a questionnaire, so there are limitations.

But this comes on the heels of another large prospective cohort study published in 2010. 364,418 Washington state residents, aged 50-76 years old, were identified from a purchased commercial mailing list and sent a cover letter and a 24-page questionnaire to be self-administered. The letter asked supplement users to participate in a study comparing supplement use and cancer risk. The time frame was between October 2000 and December 2002. Of the 79,300 questionnaires that were returned, 77,719

met eligibility and quality-control checks. Participants were followed for mortality for an average of 5 years. Results showed a reduction in all-cause mortality by 17% by participants taking either glucosamine or chondroitin sulfate more than 4 times per week for more than 3 years.

Of course, as one reads these studies there is a lot to think about. Because they were already taking supplements, did that mean they were likely to live a healthier life style and take more responsibility for their health anyway? Let's go back a few years and look at the work of Dr. Lester Morrison.

Dr. Morrison was chairman of the Department of Atherosclerosis Research at Loma Linda University. He spent 50 years of his life studying heart disease, which killed his mother, father, and many other family members. He worked with rats, squirrel monkeys, and then extrapolated his work to humans.

He felt chondroitin sulfate was superior to heparin as it lasted longer and acted to repair damaged tissue. He conducted a clinical study with 120 patients with demonstrable ischemic heart disease or coronary heart disease. He reported the study in the *Journal of the American Geriatrics Society* Oct 1969. 60 patients received standard care and served as controls. Another 60 patients were given standard care with chondroitin sulfate. At the end of the 2.5 year observation period, 21 of the 60 patients in the control group experienced acute cardiac episodes or myocardial ischemia; of these, 4 were fatal. The 17 survivors were hospitalized: 7 with myocardial infarction, 7 with acute myocardial ischemia or coronary insufficiency, and 3 with non critical or transient myocardial ischemia.

In the matched chondroitin sulfate treated group of 60 patients, there were 5 deaths. Autopsies were conducted in all cases. Three deaths were cardiovascular in nature and 2 were not. Here is the exciting part. Authors stated, "The surviving 55 patients of this group have not required treatment or hospital admission for acute cardiac symptoms or recurrent cardiac illness." 21 patients in the control group had recurring cardiovascular incidents vs. 3 coronary episodes in the chondroitin sulfate group. This is beyond stunning. In the past, chondroitin sulfates and glucosamine were identified as

mucopolysaccharides. You'll note in the literature the category has been changed to glycoaminoglycans, GAGs for short. So, you may see both titles as you review the work.

Noting Dr. Morrison's work and the positive effects of GAGs, Biotics Research was the first company to introduce chondroitin sulfate into the market place. Dr. Morrison always used a purified form of chondroitin sulfate, where the collagen was removed. Based on Dr. Morrison's work, Biotics has always used a purified form. Chondroitin sulfate has been shown to be the active fraction of cartilage powder. Purified Chondroitin Sulfates is 3-10 times more effective than an equal amount of cartilage powder. Each capsule of Biotics Purified Chondroitin Sulfates is 250mg, so 2 capsules tid would give you Dr. Morrison's dosage.

If you are looking for a combination glucosamine/chondroitin product, Biotics makes 2 high dose products, one with glucosamine HCl and one with glucosamine sulfate. See the link to the right for label information. Circulation to joints is slow, so sometimes it can take time to see results with glucosamine and chondroitin. It's a rebuilding, repairing process. Patients can get discouraged if they don't see results right away, but if they know there are anti-aging benefits, it will increase compliance. By the same token, if heart disease is a part of their health equation, the use of glucosamine and chondroitin sulfate may be a serious consideration and worth the wait.

Thanks for reading this week's Tuesday Minute edition. I look forward to being with you again next Tuesday.