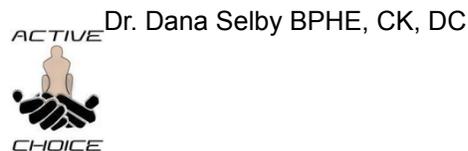


Ask the Professional – Glucosamine: What is it and how does it function?

As a health care professional, I often get asked about vitamins and dietary supplements and how

beneficial they are. While this is not my area of expertise, I do consistently recommend glucosamine, which is currently classified as a dietary supplement, especially to people who have osteoarthritis (osteo meaning bone, and arthritis meaning inflammation of the joints), those into their 3rd decade and older and for those who have sustained injuries to their joints. Glucosamine is a compound that is derived from chitin, an abundant substance that is available from the shells of shellfish, lobster and crabs¹ and also from certain plant substances (thus it is contraindicated for people who are allergic to shellfish to take glucosamine derived from shellfish, they should choose a plant based glucosamine). Glucosamine is found in almost all human tissues, but is most abundant in the liver, kidney and cartilage. It is the most fundamental substance required for the synthesis of the compounds that are directly involved with joint structure and function.² It is also an essential component of cell membranes and proteins that structurally help to hold the cells together.² Given that as we age, and in joints that have been damaged, there is an imbalance between the synthesis and degradation of the substances that compose the cartilage that surrounds the ends of all bones that have moveable joints (or synovial joints), called articular cartilage. This imbalance has been shown to have a negative impact on the biomechanical function of the cartilage leaving it vulnerable to the forces that normally go through these joints (i.e.: compression, tension and shear forces)³, this is especially true in the weight bearing joints of the body such as the knee and hip. It has been theorized that by increasing the amount of glucosamine, in the form of supplementation, that this imbalance will be normalized and that future damage to the articular cartilage of joints can be decreased.² While this all sounds fantastic, the big question is does it really do all this? Although there have been many studies done on glucosamine, many of them supporting that glucosamine does have a direct role in reducing the progression of articular cartilage damage, more research needs to be done in order to determine exactly how glucosamine functions on a physiological level. However, there have been very positive reports from people who have utilized glucosamine with respect to joint pain and stiffness and given that the reported side effects of taking glucosamine are minimal it is considered a safe and for many, effective supplement. Dosage is often dependent on body weight with a typical dosage of 1500mg/day and 2000mg/day for those who weigh in excess of 200lbs. It is important that before starting any supplement or vitamin, especially if taking other prescription medications, to speak with your medical doctor in order to determine that no drug interactions will occur. For more information on glucosamine please contact:



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