

Some good news on where to find information on buying good supplements!!!

I have found a good website to help you decide what a good supplement supply is. For copyright issues I can't provide the information to you (sorry) but the website is [consumerlabs.com](http://consumerlabs.com). For a membership of under 3\$ a month you can sign up for a 1 or 2 year subscription to review their independent lab testing on purity. I highly recommend using them if you are in the market for purchasing supplements to make sure you get what you are paying for and that the supplement is safe from any significant contaminants. Remember, this information doesn't mean that the supplement is itself safe or effective but it should help ensure it has the concentrations of supplement it says it does and doesn't have harmful contaminants such as mercury. Consumer labs reported that while 8 out of 8 products with glucosamine had the amount on the label 2 of 2 chondroitin products didnt have the reported amount of chondroitin. Sources- [Quackwatch.org](http://Quackwatch.org) on Glucosamine and Chondroitin for Arthritis.

What are Glucosamine and Chondroitin used for?

While they have been looked at for many potential purposes, the most promise for either has been for pain from arthritis and most studies have been on relief of knee pain. Approximately 27 million Americans suffer from osteoarthritis which is the most common form of arthritis and is generally caused from usual wear and tear on the joints that happens over the course of time. There has been hope that either may help build up cartilage again but to date there have been no good studies to support this. Sources- AAOS (American Academy of Orthopedic Surgeons) overview of Glucosamine and Chondroitin

What is Glucosamine and how does it work with cartilage?

Glucosamine is found in the body naturally and it is felt to stimulate cartilage formation and repair it is well. Glucosamine is believed to have anti-inflammatory properties to keep swelling down. Cartilage is known to be a "shock absorber" of sorts in the joint which takes up much of the stress that joints receive over time. When it starts to wear down is usually when pain starts and if it wears down too much that is when joints may need to be replaced. Sources- AAOS (American Academy of Orthopedic Surgeons) overview of Glucosamine and Chondroitin

What is Chondroitin and how does it work?

Chondroitin is another compound found naturally in the body and it is believed to prevent enzymes in the body from breaking down the key components of cartilage. Like Glucosamine it is believed to have anti-inflammatory properties to keep swelling down. Chondroitin is usually manufactured from shark or beef cartilage or cow trachea but it can be made in the lab as well. Sources- AAOS (American Academy of Orthopedic Surgeons) overview of Glucosamine and Chondroitin, Mayo Clinic website on Chondroitin sulfate.

What are the dangers of taking Chondroitin and who shouldn't take them? Overall, the risks are pretty minimal but pregnant and breastfeeding women shouldn't take them. Also in theory, there can be bleeding risks with chondroitin so consider avoiding it if you are on coumadin, aspirin, plavix, aggrenox or any other blood thinners. Also, those with an increased risk of prostate cancer or who have prostate cancer should avoid it. Multiple other mild side effects are reported but none to date have been considered to be serious. Side effects include gas, soft stools, headache, muscle issues, worsening of asthma, chest pain, blood pressure elevation, nausea, diarrhea, swelling, eyelid swelling, bone marrow suppression (in animals) , hives, rash, hair loss, and potential shortness of breath and heartburn. Sources- Mayo Clinic website on Chondroitin sulfate, [Quackwatch.org](http://Quackwatch.org) on Glucosamine and Chondroitin for Arthritis.

What are the dangers of taking Glucosamine and who shouldn't take them?

There are potential risks for anyone who has shellfish allergies or iodine hypersensitivity as glucosamine is often made from shellfish. Knowing the source of your glucosamine is very important. Glucosamine has a theoretical (not proven) risk with bleeding and thinning of the blood. So if you are taking aspirin, coumadin, plavix, aggrenox then you need to be aware it may further thin the blood out to increase the risk of bleeding. There is also a question as to whether it can affect sugars in patients with diabetes and make it worse. While the data isn't clear, some early studies suggest that glucosamine doesn't affect sugars on diabetics, but if used then sugars need to be watched closely. Other potential side effects include upset stomach, drowsiness, insomnia, headache, rashes, sun sensitivity and nail toughening. Other less common potential side effects include nausea, vomiting, decreased appetite, gas, constipation, stomach pains, and diarrhea. Source-Mayo Clinic website on Glucosamine

Should I take this to prevent problems with arthritis in the future?

To date there isn't enough proof to say it is worthwhile and given the data we have it is questionable if it has significant prevention effects. That being said, if you have the funds and don't have any problems tolerating them or any of the risks noted above, there is little to say you couldn't try glucosamine and if desired chondroitin.

What else should I try for aches and pains?

That is a difficult question to answer for all people. First and foremost, weight loss and regular exercise (if you are told you are ok to exercise by your doctor) are the best things to help prevent and treat regular osteoarthritis. Weight loss is the single best thing you can do to relieve or prevent symptoms. If you aren't sure if that is what you have it would be safer to be evaluated by your doctor. If you choose to try something yourself, tylenol (if you have no liver problems or allergies) is usually safe and may be effective if taken as recommended on the bottle. However, if you need it for more than a week you should see a doctor to evaluate the problem. Physical therapy and other medications can be helpful, but they should be discussed with your primary care provider.

Should I try Glucosamine and Chondroitin?

The short answer is yes – it likely can't hurt (see above before you make a final decision). If cost is an issue, most data supports the use of Glucosamine over Chondroitin if you are taking just one. Furthermore, you should try them for at least 3 months and make sure you use a good brand and recommended doses as noted below. If you see no improvement in 3 months time with pain or other symptoms then I wouldn't stay on them unless you want to hold out hope that they may build up cartilage. There have been many small studies to support that both may help with pain relief but to date no studies have shown that either rebuilds cartilage. Furthermore, the largest and most comprehensive trials have failed to show any significant improvement in pain reduction. That being said, the large studies suggested some improvement with most every group. However, for the purposes of the study the improvement wasn't enough to call it a successful treatment and more studies are needed. Sources- NIH Website- Questions and Answers on the Glucosamine/Chondroitin Arthritis trial (GAIT trial)

How much glucosamine and chondroitin should I take?

For Chondroitin, 200-400mg 2-3x daily of Chondroitin sulfate or 800-1200mg 1x daily. It appears that higher doses have the same efficacy.

For Glucosamine, 500mg of glucosamine sulfate 3x daily is the way it is used most but it has been used at 1500mg 1x daily as well. (some studies suggest that glucosamine sulfate is better than other forms of glucosamine)

Mayo Clinic website on Chondroitin Sulfate, Mayo Clinic website on Glucosamine, and Quackwatch.org on Glucosamine and Chondroitin for Arthritis