

MSM, glucosamine and chondroitin sulphate

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The combination of the three natural substances MSM, glucosamine and chondroitin is one of the best, most well-known treatments for Arthrosis (degenerative joint damage). The three combined have the ability to rebuild the worn-out cartilage.

In arthrosis, the cartilage layers, which coat the bones inside the joint, slowly disintegrate. Once the cartilage has completely disappeared, bone rubs against bone, which is extremely painful. Viewed medically, the possibilities for treatment are limited. In the early and middle stages, treatment involves painkillers and nonsteroidal anti-inflammatories (e.g.: Voltaren, Brufen etc.). If the pain becomes too intense, artificial joints need to be implanted surgically.

Arthrosis is very common. In Switzerland, an estimated 20,000 hip and 7,000 knee joint replacement surgeries are undertaken annually. These two joints are by far the most frequently affected. There is also arthrosis of the fingers, shoulders, elbows and feet. These patients frequently suffer from severe pain, often at night. We can assume that around 80% of all over 70-year-olds suffer from arthritis. The disease can begin at a very young age, i.e. with 20 or 30 years of age.



With the combination of active ingredients MSM / glucosamine / chondroitin, arthrosis can be improved in many cases, even to the point where the person is totally free of pain. This is because these three substances have the ability to rebuild the cartilage. The treatment requires a lot of patience. First improvements are only expected after a few months and it takes 1 to 2 years to be pain free. In addition to improving the arthrosis, these substances have many other positive effects, which we will have a closer look at below.

MSM

The abbreviation MSM stands for methyl sulfonyl methane. It is an organic sulphur compound without any side effects. When one thinks of sulphur, toxins come to mind, like Sulphur dioxide in air or sulphites as preservatives in wine. MSM, however, is a harmless, non-toxic, vital, sulphuric compound found in the body. Our body consists of 0.2% sulphur, yet has attracted very little scientific study. Our body contains about 40x more sulphur than iron and about 5x more sulphur than magnesium. It is therefore obvious that Sulphur is a very important building material in the body.

Sulphur in Joints

Sulphur is a component of the mucous membrane in the joint capsule (synovia), the joint fluid and the articular cartilage. A lack of sulphur, which is never diagnosed, is therefore a major factor in the development of degenerative joint diseases such as osteoarthritis, which has become an expensive wide-spread disease.

Studies

In a randomised, double-blind, placebo-controlled study, the Southwest College Research Institute demonstrated in 2006, that MSM significantly decreases the pain and increases the mobility of knee arthrosis. Another study with the same result:

<https://www.ncbi.nlm.nih.gov/pubmed/16309928>

Effects of MSM

In addition to improving arthrosis, MSM has the following positive effects:

- Relieves pain
- Inhibits inflammation
- Decongestant action
- Rebuilds cartilage
- Strengthens the connective tissue by collagen formation
- Promotes healthy hair and nails
- Moistens dry skin



Glucosamine

In addition to MSM, a good remedy for arthrosis must also contain glucosamine and chondroitin. Glucosamine is a natural substance that occurs in the form of glycans both in the joint fluid as well as in cartilage. Glucosamine has no side effects.

Studies

On the topic of glucosamine there are more than 21,000 published studies with conflicting results. In all studies, it is always important to ascertain who is funding them and what the desired result is. It is obviously not in the interests of the pharmaceutical industry to find a simple and cheap natural remedy that actually improves osteoarthritis. So, when you browse the internet, you will find a lot of contradictions with regards to glucosamine, with some claiming the compound to be useless. My personal experience is very good, and many patients have reported a significant reduction in pain after one year of treatment.

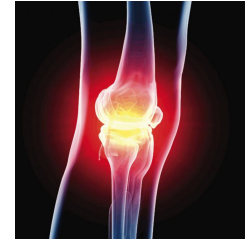
- Two (2) studies by Prof. Jean-Yves Reginster, confirming the efficacy of glucosamine <https://www.ncbi.nlm.nih.gov/pubmed/11214126> and <https://www.ncbi.nlm.nih.gov/pubmed/17658908>. The first study was published in the Lancet, one of the most prestigious medical journals.
- Another study by I. Setnikar: <https://www.ncbi.nlm.nih.gov/pubmed/8135881> Setnikar has proved that glucosamine is bioavailable, i.e. easily absorbed by the intestine.

Chondroitin

Chondroitin is an amino sugar formed in the cartilage cells. Once again it is a compound found naturally in the body. Chondroitin is the basic building block of cartilage. As a dietary supplement, chondroitin should always be taken in the form of chondroitin sulphate. Chondroitin, much like glucosamine and MSM, does not have any side effects.

Chondroitin sulphate has the following effects:

- Analgesic
- Anti-inflammatory
- Cartilage regeneration



Studies

Prof. Jean Pierre Pelletier from the University of Montreal is one of the world's best researchers in the field of osteoarthritis. He has shown in the two following studies that chondroitin is effective. He also demonstrated its superiority over the drug Celebrex. As a side note, Celebrex is very similar to the drug Vioxx, which had to be withdrawn from the market because of the numerous side effects such as heart attacks.

- <https://www.ncbi.nlm.nih.gov/pubmed/27809891>
- <https://www.ncbi.nlm.nih.gov/pubmed/26881338>

I recommend the following daily dosages for the treatment of Arthrosis:

Glucosamine	900 mg
MSM	800 mg
Chondroitin sulphate	600 mg

Strengthening the effect

The effect of the combination preparation MSM / glucosamine / chondroitin can be strengthened with several other natural products:

- Omega-3 fatty acids
- Turmeric
- Aronia
- Willow Bark
- Devil's claw
- Rosehips
- Arnica ointment
- Chili Cream



Exercise has a positive effect on all forms of arthrosis. This can be painful, so you should start slowly. If the pain is too severe, consider exercise in water (e.g., Aqua fit). All forms of exercise are always highly recommended.