

'Medical literature doesn't approve of glucosamine'

treatment from the placebo.

What do the medical journals say? There are countless articles in JAMA (Journal of American Medical Association) and Lancet etc, but unfortunately none of them prove the efficacy of glucosamine satisfactorily.

If studies are not favourable, why is it being prescribed? Many researchers complain that most of the primary studies are poor and most of the trials too small. Now we have two additional concerns about the existing evidence. Firstly, companies making glucosamine sponsor much of the research. Company sponsorship affects the likelihood of positive results in trials. There are many trials with clear involvement by a company producing the product: all these trials gave positive results. Secondly, most reviews have not been able to take account of the possible effects of publication or language bias. So, though much of the research points to glucosamine being a safe and effective treatment for OA, problems with bias and quality mean that these results must be treated with caution.

Are there any side effects? Nausea, Diarrhoea, Gastrointestinal upset, fatigue, headache, dizziness and depressed mood are the side effects. There are also reports of photosensitivity and increase in blood pressure. Children, pregnant women and the very elderly should avoid these supplements because the effects on these groups have not been studied. Diabetics should not take glucosamine because it may raise blood glucose levels.



one has developed OA. That is the reason why these "synthetic" products are thought to replenish our systems are prescribed. In OA patients there is a deterioration of the cartilage cushion. It is postulated that lack of glucosamine in the cartilage causes this problem.

Is it necessary? If not why? Since there is no

cure for OA, treatment is focused on decreasing pain and stiffness, maintaining or improving function and slowing the progression of OA.

It is claimed that glucosamine may decrease the symptoms of OA and stop or slow the progression of OA. Research work has shown that it can alter metabolism of the cartilage, which covers the joint surfaces, and this is the rationale usually given for its use in OA. People with joint pain, including those with OA are consuming large quantities of glucosamine as a result of a huge volume of recent media coverage on its possible value. However, it is unclear whether glucosamine, which is taken by mouth, can reach the joints. The most appropriate dose and route of administration remain unknown.

Once the word is out that it's a miracle drug; and see what happens—the pharma firms flood the market with their version of the product. As in the past the same has happened with Glucosamine, a drug that claims to cure OA (osteoarthritis). At last count some 80-odd Indian pharma companies are manufacturing it. In fact, it has become fashionable among the fifty-plus OA sufferer to recommend the newly diagnosed OA patient the magic word: Start taking glucosamine, it really helps. Rheumatologists, physicians and general practitioners are prescribing the drug to all and sundry. **Hiren Kumar Bose** spoke to leading consultant orthopaedic surgeon Dr D Shrinivas about the issues relating to glucosamine.

We do not even seem to know how to classify it: is it a drug, a food supplement, a nutraceutical, or a complementary therapy? It should be emphasized that with the current studies, there is no conclusive evidence that glucosamine prevents or reverses the process of joint degeneration that leads to OA. Future studies are

needed to make such conclusions. There are a large number of studies using glucosamine that have been reported to show a symptomatic improvement in OA. Unfortunately there are a number of criticisms in the quality of these smaller studies. These include lack of standardization, insufficient information in the design of the study, and a failure to adequately conceal the

What is it? Glucosamine is a naturally occurring amino sugar

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synthesized in the body. Amino sugars are the key components of larger compounds called glycosaminoglycans and glycoproteins that allow cells in tissues to hold together. It is found in almost all human tissues but is highest in concentration in the liver, kidney, and cartilage. Synthetically glucosamine is made from the shells of crabs and other shellfish.

In which situation/problem is it being prescribed? Glucosamine is believed to relieve the symptoms of OA while at the same time slowing the progression of the disease. However, it is not produced in sufficient quantities once