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**Prostate Cancer, Support Groups  and Prostate Cancer Treatment**

*Chondroitin* Sulfate for Relief of Osteoarthritis Symptoms in Prostate Cancer Patients By Charles “Snuffy” Myers, MD   
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Patients often use *chondroitin sulfate* in combination with glucosamine to relieve osteoarthritis symptoms. Unfortunately, chondroitin sulfate also appears to play such a major role in cancer biology that using it may be risky.   
  
The cartilage that lines your joints incorporates a group of proteins that contain chondroitin sulfate. When the joint is damaged (as it is in osteoarthritis), the joint cartilage responds by producing an array of chondroitin-containing proteins in a futile attempt to heal. The general consensus suggests that oral chondroitin sulfate enhances the effectiveness of these proteins, improving joint function and relieving pain. One of the proteins produced in the arthritic joint is the chondroitin binding protein versican.  
  
You can find versican on the surface of a wide range of cancer cell types. In general, the greater the amount of chondroitin-containing versican bound to the cancer cell, the more likely it is that the cancer cell will be able to spread widely throughout the body. There is sufficient documentation of this effect of versican for prostate cancer, melanoma, some brain tumors, and a range of other cancers. For example, the amount of chondroitin sulfate found associated with prostate cancer in radical prostatectomy specimens correlates with the risk of recurrent disease.   
  
Versican is not the only chondroitin sulfate-containing protein found on prostate cancer cells. TNB2 is a chondroitin sulfate-containing protein whose appearance is associated with the development of hormone-independent prostate cancer. It’s also more likely to be found in prostate cancers with Gleason grades 8-10 rather than in low Gleason grade tumors that normally have a good prognosis.   
  
Chondroitinases are proteins that cleave chondroitin sulfate from proteins like versican. In animal experiments, chondroitinase treatments slow the progression of cancer, leading to the suggestion that chondroitin-containing proteins on the surface of cancer cells are a useful therapeutic target.   
  
All of this science suggests that taking the sufficient amount of chondroitin sulfate to protect the cartilage lining of your joints might also foster prostate cancer progression, as well as the growth of other malignancies. I recommend you avoid chondroitin sulfate until clinical trials can demonstrate its safety.   
  
Alternatively, I recommend glucosamine, because there is no evidence that glucosamine fosters the progression of prostate cancer. Furthermore, a randomized controlled clinical trial shows that glucosamine preserves the thickness of joint cartilage, thus slowing the progression of osteoarthritis. In this trial, they used daily glucosamine sulfate doses of 1,500 mg over a three-year period.   
  
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