

## Broccoli benefits: Could sulforaphane be key in the fight against osteoarthritis?

By Nathan Gray+, 28-Aug-2013

Related topics: Polyphenols, Botanicals and Herbals, Bone & joint health, Research

### **Sulforaphane found in broccoli could help to prevent or slow the progress of one of the most common forms of arthritis, say researchers.**

The findings from a new lab study show that the broccoli compound - that has been previously touted for its potential anti-inflammatory and anti-cancer benefits - slows down the destruction of cartilage in joints that is associated with osteoarthritis.

Led by Professor Ian Clark from the University of East Anglia (UEA), UK, the research team used lab tests to discover that sulforaphane blocks the action of enzymes that cause joint destruction by stopping a key molecule known to cause inflammation. The team then tested whether the compound would have such benefits in living animals using a mouse model.

Writing in *Arthritis & Rheumatism*, the team reported that in addition to their in vitro results, a sulforaphane-rich diet - decreased arthritis scores in the mouse model of osteoarthritis versus control chow .

*"The results from this study are very promising,"* said Clark. *"We have shown that this works in the three laboratory models we have tried, in cartilage cells, tissue and mice."*

*"We now want to show this works in humans. It would be very powerful if we could."*

### **Future perspective**

Sulforaphane is released when eating cruciferous vegetables such as Brussels sprouts and cabbage, but particularly broccoli. Previous research has suggested that sulforaphane has anti-cancer and anti-inflammatory properties, but this is the first major study into its effects on joint health.

*"This study is important because it is about how diet might work in osteoarthritis,"* said Clark.

*"As well as treating those who already have the condition, you need to be able to tell healthy people how to protect their joints into the future,"* he said. *"There is currently no way in to the disease pharmaceutically and you cannot give healthy people drugs unnecessarily, so this is where diet could be a safe alternative."*

*"Once you have osteoarthritis, being able to slow its progress and the progression to surgery is really important."*

*"Prevention would be preferable and changes to lifestyle, like diet, may be the only way to do that."*

Arthritis Research UK's medical director Prof Alan Silman said that the study provides 'promising results'.

*"Until now research has failed to show that food or diet can play any part in reducing the progression of osteoarthritis, so if these findings can be replicated in humans, it would be quite a breakthrough."*

Copyright - Unless otherwise stated all contents of this web site are © 2013 - William Reed Business Media SAS - All Rights Reserved - For permission to reproduce any contents of this web site, please email our Syndication department [copyright@wrbm.com](mailto:copyright@wrbm.com) - Full details for the use of materials on this site can be found in the Terms & Conditions