

Eating broccoli could guard against arthritis

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Scientists at the University of East Anglia (UEA) are launching a groundbreaking new project to investigate the benefits of broccoli in the fight against osteoarthritis.

Initial laboratory research at UEA has found that a compound in broccoli called sulforaphane blocks the enzymes that cause joint destruction in osteoarthritis - the most common form of arthritis.

Broccoli has previously been associated with reduced cancer risk but this is the first major study into its effects on joint health.

With funding from both Arthritis Research UK and the Diet and Health Research Industry Club (DRINC), the £650,000 project will explore how sulforaphane may act to slow or prevent the development of osteoarthritis. It will prepare the way for the first patient trials and could lead to safe new ways of preventing and treating this painful disease.

Sulforaphane is a bioactive compound found in cruciferous vegetables, particularly broccoli. Eating [broccoli](#) leads to a high level of sulforaphane in the blood, but scientists don't yet know if the sulforaphane gets into joints in sufficient amounts to be effective. This is one of the things that the UEA team hopes to discover.

Osteoarthritis is the leading cause of disability in the UK where it affects around six million people. It is a [degenerative joint disease](#) which gradually destroys the cartilage in the joints, particularly in the hands, feet, spine, hips and knees of older people. There is currently no

effective treatment other than pain relief or joint replacement.

Prof Ian Clark, of UEA's School of Biological Sciences, who is leading the research said: "The UK has an aging population and developing new strategies for combating age-related diseases such as osteoarthritis is vital - to improve the quality of life for sufferers but also to reduce the economic burden on society."

As part of the three-year project, the UEA team will also investigate the effects of other dietary compounds on [osteoarthritis](#), including diallyl disulphide which is found in high amounts in garlic and also appears to slow the destruction of [cartilage](#) in laboratory models.

Provided by University of East Anglia

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