
The potential for dietary factors to prevent or treat osteoarthritis.


Abstract

Osteoarthritis (OA) is a degenerative joint disease for which there are no disease-modifying drugs. It is a leading cause of disability in the UK. Increasing age and obesity are both major risk factors for OA and the health and economic burden of this disease will increase in the future. Focusing on compounds from the habitual diet that may prevent the onset or slow the progression of OA is a strategy that has been under-investigated to date. An approach that relies on dietary modification is clearly attractive in terms of risk/benefit and more likely to be implementable at the population level. However, before undertaking a full clinical trial to examine potential efficacy, detailed molecular studies are required in order to optimise the design. This review focuses on potential dietary factors that may reduce the risk or progression of OA, including micronutrients, fatty acids, flavonoids and other phytochemicals. It therefore ignores data coming from classical inflammatory arthritides and nutraceuticals such as glucosamine and chondroitin. In conclusion, diet offers a route by which the health of the joint can be protected and OA incidence or progression decreased. In a chronic disease, with risk factors increasing in the population and with no pharmaceutical cure, an understanding of this will be crucial.

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