

Osteoarthritis Supplement Considerations



Vitamin D3 & K2

Vitamin D3 & K2 is an essential vitamin for those with osteoarthritis. Vitamin D is required for the absorption of calcium across the intestines and into the blood. The majority of the population do not have sufficient vitamin D blood levels.¹



Magnesium Citrate

Magnesium plays a role in muscle function and nerve signalling. It helps relax muscles around joints, reducing stiffness and discomfort. Magnesium also regulates inflammation, which is crucial for managing osteoarthritis.²



Vegan Omega 3

Omega 3 fatty acids have powerful anti-inflammatory effects, reducing joint pain, stiffness, and cartilage degradation. Studies show that Omega 3s decrease inflammatory markers such as C-reactive protein (CRP) and interleukins, both of which contribute to osteoarthritis progression.³



Curcumin & Turmeric

Curcumin, the active component of turmeric, has been shown to reduce pain and stiffness in osteoarthritis by blocking inflammatory pathways. It works similarly to NSAIDs but without the gastrointestinal side effects.⁴



OsteoFriend®

A blend of 19 active ingredients to support bone and joint health.

Dietary Considerations

+ Anti-inflammatory foods

A diet rich in fruits, vegetables, nuts, seeds, and whole grains reduces inflammation, which is a key driver of osteoarthritis. Berries, turmeric and green tea are particularly beneficial.

+ Increase Omega 3 intake

Omega 3-rich foods like flaxseeds, chia seeds, walnuts and algae-based supplements help reduce joint inflammation and slow cartilage breakdown.⁵

+ Eliminate sugar and refined carbohydrates

Processed foods and refined sugars promote inflammation and oxidative stress, both of which contribute to osteoarthritis progression. Avoiding them helps reduce pain and stiffness.⁶

+ Increase plant-based meals

Red meat can increase inflammatory markers, leading to more joint pain. Choosing plant-based proteins can help reduce inflammation.⁷

+ Increase intake of antioxidants

Fresh fruit, vegetables, nuts and leafy greens, help reduce oxidative stress and protect joint cartilage from further damage.

+ Increase fibre rich foods

Fibre supports gut health, which plays an essential role in regulating inflammation.

Lifestyle Considerations

+ Maintain a healthy weight

Excess weight puts additional stress on weight-bearing joints like the knees and hips, accelerating cartilage breakdown. Losing even 5-10% of body weight can significantly reduce osteoarthritis symptoms.

+ Sleep hygiene

Poor sleep increases pain perception and increases inflammatory markers. A consistent sleep schedule, reducing screen time before bed and optimising the sleep environment can improve symptoms.⁸

+ Engage in low-impact exercise

Activities like swimming, cycling, yoga and walking improve joint mobility, strengthen muscles around the joints, and reduce stiffness. Weight-bearing exercise can also help, but high-impact movements should be minimised.⁹

+ Quit smoking

Smoking increases oxidative stress, reduces collagen production and worsens joint degeneration. Quitting can slow disease progression and improve overall joint function.¹⁰

Testing Considerations

TEST	MARKER	RATIONALE
X-Ray & MRI	Joint space narrowing Cartilage loss Osteophyte formation	Joint space narrowing, cartilage loss, osteophyte formation X-rays help diagnose osteoarthritis severity by identifying joint degeneration. MRI provides detailed images of cartilage health and soft tissue inflammation.
Inflammatory markers	C-Reactive Protein (CRP) ESR	Elevated inflammatory markers, CRP and ESR, indicate systemic inflammation, which can contribute to osteoarthritis progression.
Vitamin D	25-Hydroxyvitamin D	Ensuring sufficient vitamin D levels is crucial for reducing joint pain and supporting bone and cartilage health.
Collagen & cartilage degradation markers	C-terminal telopeptide of type II collagen (CTX-II)	Measures the rate of cartilage breakdown. Elevated levels suggest increased joint degeneration.
Blood Sugar & insulin resistance	Fasting glucose, HbA1c	High blood sugar contributes to inflammation and oxidative stress, worsening osteoarthritis symptoms. Managing blood sugar is important for slowing disease progression.

REFERENCES

1. Diseases. 2023 Feb 8;11(1):29.

2. Nutr Res. 2021 Jun;90:24–35. doi: 10.1016/j.nutres.2021.03.002.

3. Nutrients. 2024 May 28;16(11):1650.

4. Drug Des Devel Ther. 2021 Nov 2;15:4503–4525.

5. Nutrients. 2022 Aug 16;14(16):3362.

6. PLoS One. 2024 Nov 14;19(11):e0313754.

7. Front. Nutr., 17 July 2024.

8. Neuropsychopharmacology. 2019 Jun 17;45(1):205–216.

9. Front Physiol. 2021 Dec 16;12:794062.

10. J Environ Public Health. 2018 Jul 11;2018:4184190.