



# Vitamin B for Osteoarthritis Management

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## How a Vitamin B Complex Can Help Your Joints

Since OA is a progressive, potentially debilitating condition, research continues to focus on natural ways to alleviate the discomfort and slow the damage that are safe for long-term use.

For decades, the spotlight has been on antioxidant and non-antioxidant vitamins, given their nourishing qualities and cell-building power.

In recent years, the B vitamins have gained a lot of press, and ongoing studies suggest that these eight compounds could play a big role in the fight against inflammation and joint impairment.

However, there are still some questions and concerns surrounding vitamin B for osteoarthritis, so take the time to investigate a little deeper before visiting the pharmacy.

## What the Studies Show

Over the last few decades, studies have focused mainly on vitamins B3, B6, B9, and B12. Researchers have tested some B vitamins in an isolated capacity – that is, how they fare without other B vitamins – but in many cases, a combination of different B vitamins have led to the most noticeable results:

### Improved Pain-Reliever Performance

In a double-blind trial of 50 OA patients conducted in 2013, the anti-inflammatory Diclofenac was either given alone, or combined with a dose of vitamins B1, B6 and B12.

The participants who received both the anti-inflammatory and the B vitamins reported less pain than the group who only took the Diclofenac.

### Better Joint Protection

Researchers have found that combining vitamin B1 with glucosamine and chondroitin – two compounds used to restore joint cartilage – may enhance the protective effects of the cartilage-building supplements.

However, the findings that were published in *Inflammation Research* were based on tests in animals, not in humans.

### Higher Joint Function

In a trial involving patients with hand osteoarthritis, vitamin B9 taken together with vitamin B12 led to significantly better hand grip values compared to those who only took vitamin B9 or the placebo.

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In a separate trial published in the *Journal of Inflammation Research* involving 72 osteoarthritis patients, joint mobility increased with regular vitamin B3 supplements, and overall symptoms improved by 29%.

While results have generally been quite positive, experts agree that more research must be conducted before the B vitamins can be universally recommended for OA patients. It's important to discuss with your doctor how you should incorporate them into your current treatment – there is little evidence to suggest that simply increasing your B vitamin intake can replace all other pain relief and anti-inflammatory measures.

*Next page: how B vitamins work for joint health, plus some guidelines and precautions for taking vitamin B supplements.*

## **How B Vitamins Work for Joint Health**

It's not entirely clear how the B vitamins work precisely for joint pain and stiffness, but experts suspect that each may target inflammation, nerve function, or bone growth. It follows that a combination of the most effective B vitamins (a Vitamin B complex) may help to relieve an array of osteoarthritis symptoms.

Vitamin B3, or niacinamide, seems to be particularly helpful in reducing pain and swelling, especially in the hands. Vitamin B6 is vital for healthy nerve function, and may also reduce inflammation in the joints. As for vitamin B12 (cobalamin), there's a good body of research to suggest that this compound plays an important role in bone-metabolism.

OA patients typically have low levels of vitamin B9, commonly known as folic acid. Adding folate to your treatment plan will often reduce joint symptoms, plus it's known to keep your blood healthy and protect your heart – an important preventative measure to take as you age.

## **Guidelines for Vitamin B Supplements**

Since most arthritis patients – and the general population, for that matter -- are lacking in vitamin B6 and B9, the National Academies of Science (NAS) recommends a vitamin B complex for everyone over the age of 50.

Daily supplementation is key, since all B vitamins (with the exception of vitamin B12) are processed quickly and flushed out through the urine. Increasing and maintaining your B vitamin levels will encourage your body to produce the proteins that rebuild cartilage.

Taking a B complex is often easier than trying to take the right amount of each of the eight B vitamins. Experts stress the importance of balance: it's possible that taking individual B vitamins in isolation can lead to a metabolic imbalance, and even a risk of nerve damage.

## **Side Effects and Precautions to Keep in Mind**

B vitamins and complexes are generally deemed safe, and they're widely available without a prescription, but you can get too much of a good thing. As with most supplements, you must stay within the recommended daily amounts to avoid unpleasant or dangerous side effects, like:

- Nausea and diarrhea
- Constipation
- Rash
- Itching
- Liver damage and ulcers (a rare consequence of too much vitamin B3)

Fortunately, no serious drug interactions have been reported, which means that you can likely introduce B vitamins to your current OA treatment plan without any trouble.

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However, your lifestyle and current disease management plan can sometimes interact with a change in supplements or medication. For instance, consuming alcohol with vitamin B3 could increase your chances of liver damage, and some people notice minor reactions when they take B3 with aspirin or nicotine patches.