

IN FOCUS

Bone and joint health

Chris Jolliffe shares insights on how a nutrient-rich, plant-based lifestyle can keep you moving freely well into the future



CHRIS JOLLIFFE

Chris is a Doctor of Chiropractic, Level 4 Personal Trainer and Studio Instructor in Bournemouth, Christchurch and Poole. He runs the Back to Fitness clinic and is a British Chiropractic Association (BCA) member, sitting on its communications committee.

A plant-based diet is often celebrated for its array of health benefits, from heart health to lower levels of inflammation and improved digestion. But when it comes to maintaining strong bones and flexible joints, the conversation can get a little cloudy. Is a vegan or plant-based diet enough to support your skeletal structure and mobility long-term?

The short answer is yes, if it is done right. While plant-based diets can absolutely support optimal bone and joint health, poorly planned versions may fall short in providing essential nutrients. Just like any dietary approach, it's not about what you remove, it's about what you include.

Whole foods and key nutrients

Let's start with the basics. For anyone following a plant-based diet, diversity is your best friend. A predominantly whole-foods diet that avoids anything highly processed or artificial is crucial. This means

Below Add tofu to stir fries, curries and Buddha bowls for healthy protein.



loading your plate with a colourful mix of fruits, vegetables, whole grains, legumes, nuts and seeds. The wider the variety, the better your chances of hitting all your nutritional targets and keeping your bones and joints well-supported.

When it comes to maintaining muscle strength, protein plays a starring role. However, you don't need to rely on animal products to meet your protein needs.

Incorporating two portions of minimally processed soya, such as tofu or edamame beans, into your daily meals is a great way to achieve this. Soya is a high-quality plant protein, rich in essential amino acids, and has been linked to improved bone health. While protein is important for muscle strength, calcium and vitamin D are generally more central to maintaining bone density.

Dark leafy greens like kale, spinach and bok choy are another range of foods that are packed with goodness. Not only are they rich in calcium and magnesium, but they're also high in potassium, a mineral that helps neutralise acids in the body, preventing them from removing calcium from your bones.

Magnesium, found in nuts, seeds, legumes and leafy greens, also plays a key role in bone mineralisation. This helps to strengthen bones and reduce the risk of fractures, which is especially important as we age.

The bone builders

Even the most nutrient-rich plant-based diet can fall short if you're not keeping an eye on factors that impact



calcium absorption and retention. Calcium is critical for bone strength and joint integrity, and a deficiency can increase the risk of fractures, joint deterioration, and chronic pain.

Additionally, lifestyle choices, otherwise known as 'calcium thieves' – such as smoking, drinking excess alcohol, eating too much salt, consuming sugar-sweetened beverages, and overdoing it on caffeine – can all lead to calcium loss. Fortunately, there are plenty of calcium-rich plant foods to support bone health, including: cruciferous vegetables (like broccoli, kale, bok choy, Brussels sprouts, cabbage, and collard greens); calcium-set tofu;



Above Dried figs are a calcium-rich sweet snack.

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Above Your gut microbiome plays a crucial role in nutrient absorption and immune function.

fortified plant milks and yoghurts; sesame seeds and tahini; almonds and dried figs.

Vitamin D also plays a pivotal role, helping your body absorb calcium and supporting muscle function, which reduces the risk of falls and fractures. In the UK, Public Health England advises everyone over the age of one to take a vitamin D supplement during the autumn and winter months. A daily dose of 10-25 micrograms (400-1000 IU) is typically recommended, but it's best to check with your GP or a registered dietician to determine what's right for you.

Aside from supplements, there are a number of foods that you can include on your plate to increase your vitamin D:

- Fortified plant milks (soya, almond, oat, rice milk, etc)
- Fortified breakfast cereals
- Fortified orange juice (not always common in the UK)
- Fortified vegan spreads or margarine
- Fortified tofu
- UV-exposed mushrooms (such as maitake or specially labelled portobello/white mushrooms)

Gut health and inflammation

You might not immediately connect digestion and inflammation with bone health, but the links are strong. Your gut microbiome, which is essentially the community of microbes in your digestive tract, plays a crucial role in nutrient absorption and immune function. A healthy gut can help your body access bone-building minerals more efficiently and reduce systemic inflammation that contributes to joint pain.

“The fibre in plant foods feeds good gut bacteria, which supports better mineral uptake and reduces inflammation.”

Below Sesame seeds help fight inflammation.



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Above Fortified plant milks and yoghurts are a good way to get vitamin D.

The fibre in plant foods like apples, carrots, broccoli, and flaxseeds feeds good gut bacteria, which in turn supports better mineral uptake and reduces inflammation. This benefits both bone strength and joint comfort.

One of the biggest strengths of a plant-based diet is its natural anti-inflammatory profile. Whole plant foods are rich in antioxidants, which help combat inflammation throughout the body. Berries, citrus fruits, dark chocolate, nuts, and seeds are all potent sources.

Omega-3 fatty acids, found in chia seeds, flaxseeds, hemp seeds and walnuts, help reduce inflammation and may protect against arthritis. These healthy fats support joint health by contributing to the structure of cell membranes and the production of synovial fluid, which helps cushion and lubricate joints, easing stiffness.

Vitamin C is another powerful ally. Found in abundance in citrus fruits, strawberries, peppers and kiwis, it plays a key role in collagen production. Collagen is essential for the health of your joints, helping keep cartilage strong and cushioning bones during movement.

Beyond diet: move for mobility

No matter how nutrient-dense your meals are, diet alone isn't enough to keep bones strong.

Physical activity, especially weight-bearing and resistance exercises, is essential for maintaining bone density and joint function.

Movement stimulates bone growth and strengthens the muscles that support your joints. Impact training (such as running and jumping), Pilates, yoga and strength training are all great options. Aim for at least two to three sessions per week, incorporating resistance exercises that challenge your

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Below Start the day with porridge oats topped with nuts and berries.



Above Strawberries are rich in vitamin C, which helps with collagen production.



muscles and support your skeletal structure. Find a class or routine that works for you and fits into your daily lifestyle – teaming up with a friend often helps you stay on track.

Whether you're already plant-based or considering making the switch, prioritising the right foods and lifestyle tweaks can help you stay strong, mobile, and pain-free for years to come. ♥

It's all about balance and variety

A well-planned plant-based diet can absolutely provide all the nutrients your bones and joints need to thrive, especially when it's paired with an active lifestyle and mindful daily habits. The key lies in variety, balance, and being intentional with your food and movement choices.

If you have any diet, lifestyle or bone and joint health concerns, please do get in touch with your local chiropractor for expert advice.

Below Look for orange juice that's fortified with vitamin D.



Below Try regular pilates or yoga classes to strengthen the muscles that support your joints.

