

Vitamin & Mineral Supplementation for Musculoskeletal Disorders

Arthritis

According to Mayo Clinic, Arthritis is the swelling and tenderness of one or more of your joints. The main symptoms of arthritis are joint pain and stiffness, which typically worsen with age. The most common types of arthritis are osteoarthritis and rheumatoid arthritis.

Osteoarthritis causes cartilage — the hard, slippery tissue that covers the ends of bones where they form a joint — to break down. Rheumatoid arthritis is a disease in which the immune system attacks the joints, beginning with the lining of joints.

Uric acid crystals, which form when there is too much uric acid in your blood, can cause gout. Infections or underlying disease, such as psoriasis or lupus, can cause other types of arthritis.

- **Calcium**
Mushrooms, sunlight, okra, fennel, swish chard, squash, coconut meat, brazil nuts, dates, figs, apricots, prickly pears, kiwi, mulberries, onions, avocados, sapote, sesame seeds
- **Magnesium**
Dried figs, avocado, swiss chard, leafy greens, squash, bananas, burros, cocoa, quinoa, wild rice, walnuts, hemp seeds, sesame seeds, okra, dill, basil, chives, brazil nuts, watermelon seeds
- **Selenium**
Brazil nuts, mushrooms, onions, walnuts, sesame seeds, peaches
- **Vitamin C**
Papaya, bell peppers, strawberries, cantaloupe, tomatoes, blueberries, blackberries, honeydew, raspberries, swiss chard, kiwi, elderberries, mango, guava, gooseberries, onions, squash, key limes, apricots, nori, okra, watermelon, prickly pears
- **Vitamin D**
Sunlight, mushrooms, dried figs
- **Vitamin E**
Pears, quinoa, kiwi, swiss chard, mangoes, tomatoes, avocados, walnuts, apricots, bell peppers, cucumbers, squash
- **Vitamin B Complex**
Berries, cantaloupe, key limes, avocados, tomatoes, mushrooms, apples, cherries, peppers, ginger, onions, cucumbers
- **Zinc**

Chickpeas, mushrooms, raspberries, prunes, dates, blackberries, avocados, dried figs, strawberries, cantaloupe, mangoes, watermelon seeds, coconuts, cocoa, sesame seeds, zucchini

- **Vitamin K**

Romaine, green pears, strawberries, avocados, kiwi, cucumbers, honeydew, arugula, key limes, prunes, swiss chard, olive oil, peppers, squash, tomato, apricots, onions, okra, blueberries

- **Vitamin B5**

Wild Rice, Avocado, Tomatoes, Mushrooms, Bell Peppers, Onions, Ginger, Strawberries, Squash, Pomegranate, Raspberries, Guavas, Burros, Baby Bananas

- **Vitamin B6**

Peppers, Avocado, walnuts, bananas, sunflower seeds, figs, Watermelon, chickpeas, quinoa, tomato juice, raisins

- **Vitamin B3**

Black Currant, Avocado, Tomatoes, Mushrooms, Tahini, Dandelion Greens, Dates, Swiss Chard, Paprika, Prunes, Mangoes, Nectarines, Burros, Baby Bananas, Teff, Bell Peppers

- **Vitamin B12**

Cremini mushrooms, nori, nuts, cereals

Bursitis

According to Mayo Clinic, Bursitis (bur-SY-tis) is a painful condition that affects the small, fluid-filled sacs — called bursae (bur-SEE) — that cushion the bones, tendons, and muscles near your joints. Bursitis occurs when bursae become inflamed.

The most common locations for bursitis are in the shoulder, elbow, and hip. But you can also have bursitis by your knee, heel, and the base of your big toe. Bursitis often occurs near joints that perform frequent repetitive motion.

- **Calcium**

Mushrooms, sunlight, okra, fennel, swiss chard, squash, coconut meat, brazil nuts, dates, figs, apricots, prickly pears, kiwi, mulberries, onions, avocados, sapote, sesame seeds

- **Magnesium**

Dried figs, avocado, swiss chard, leafy greens, squash, bananas, burros, cocoa, quinoa, wild rice, walnuts, hemp seeds, sesame seeds, okra, dill, basil, chives, brazil nuts, watermelon seeds

- **Selenium**

Brazil nuts, mushrooms, onions, walnuts, sesame seeds, peaches

- **Vitamin C**

Papaya, bell peppers, strawberries, cantaloupe, tomatoes, blueberries, blackberries, honeydew, raspberries, swiss chard, kiwi, elderberries, mango, guava, gooseberries, onions, squash, key limes, apricots, nori, okra, watermelon, prickly pears

- **Vitamin E**

Pears, quinoa, kiwi, swiss chard, mangoes, tomatoes, avocados, walnuts, apricots, bell peppers, cucumbers, squash

- **Beta-carotene**

Raspberries, melons, papayas, mangoes, cherry tomatoes, cantaloupe, watermelon, apricots, dandelion greens, peaches, peppers, squash, avocados

- **Selenium**

Brazil nuts, mushrooms, onions, walnuts, sesame seeds, peaches

- **Vitamin A**

Raspberries, melons, honeydew, tomatoes, peppers, mangoes, squash, papaya, peaches, avocados, apricots, plums

Fibromyalgia

According to Mayo Clinic, Fibromyalgia is a disorder characterized by widespread musculoskeletal pain accompanied by fatigue, sleep, memory, and mood issues. Researchers believe that fibromyalgia amplifies painful sensations by affecting the way your brain processes pain signals.

Symptoms sometimes begin after a physical trauma, surgery, infection, or significant psychological stress. In other cases, symptoms gradually accumulate over time with no single triggering event.

Women are more likely to develop fibromyalgia than are men. Many people who have fibromyalgia also have tension headaches, temporomandibular joint (TMJ) disorders, irritable bowel syndrome, anxiety, and depression.

- **Vitamin A**

Raspberries, melons, honeydew, tomatoes, peppers, mangoes, squash, papaya, peaches, avocados, apricots, plums

- **Vitamin C**

Papaya, bell peppers, strawberries, cantaloupe, tomatoes, blueberries, blackberries, honeydew, raspberries, swiss chard, kiwi, elderberries, mango, guava, gooseberries, onions, squash, key limes, apricots, nori, okra, watermelon, prickly pears

- **Vitamin B Complex**

Berries, cantaloupe, key limes, avocados, tomatoes, mushrooms, apples, cherries, peppers, ginger, onions, cucumbers

- **Vitamin D**

Sunlight, mushrooms, dried figs

- **Vitamin E**

Pears, quinoa, kiwi, swiss chard, mangoes, tomatoes, avocados, walnuts, apricots, bell peppers, cucumbers, squash

- **Manganese**

Walnuts, Dark Chocolate, Chickpeas, Pineapples, Rye, Teff, Amaranth, Strawberries, Raspberries, Peaches, Figs, Avocados, Apple, Apricots, Burros, Cantaloupe, Green Leafy Vegetables, Brazil Nuts, Hemp Seeds, Sesame Seed

Fracture

According to Health Line,

A fracture is a broken bone. It can range from a thin crack to a complete break. Bone can fracture crosswise, lengthwise, in several places, or into many pieces. Most fractures happen when a bone is impacted by more force or pressure than it can support.

If you suspect you have a fracture, seek medical help immediately.

What are the symptoms of a fracture?

Most fractures are accompanied by intense pain when the initial injury occurs. It may become worse when you move or touch the injured area. In some cases, you may even pass out from the pain. You may also feel dizzy or chilled from shock.

Other potential symptoms of a fracture include:

1. a snap or grinding sound when the injury occurs
2. swelling, redness, and bruising in the injured area
3. difficulty supporting weight with the injured area
4. visible deformity in the injured area
5. In some cases, you may see broken bone poking through your skin.

- **Vitamin C**

Papaya, bell peppers, strawberries, cantaloupe, tomatoes, blueberries, blackberries, honeydew, raspberries, swiss chard, kiwi, elderberries, mango, guava, gooseberries, onions, squash, key limes, apricots, nori, okra, watermelon, prickly pears

- **Vitamin D**

Sunlight, mushrooms, dried figs

- **Calcium**

Mushrooms, sunlight, okra, fennel, swiss chard, squash, coconut meat, brazil nuts, dates, figs, apricots, prickly pears, kiwi, mulberries, onions, avocados, sapote, sesame seeds

- **Magnesium**

Dried figs, avocado, swiss chard, leafy greens, squash, bananas, burros, cocoa, quinoa, wild rice, walnuts, hemp seeds, sesame seeds, okra, dill, basil, chives, brazil nuts, watermelon seeds

- **Zinc**

Chickpeas, mushrooms, raspberries, prunes, dates, blackberries, avocados, dried figs, strawberries, cantaloupe, mangoes, watermelon seeds, coconuts, cocoa, sesame seeds, zucchini

Heel/Bone Spurs

According to WEB M.D, Bone spurs (also called osteophytes) are smooth, hard bumps of extra bone that form on the ends of bones. They often pop up in the joints -- the places where two bones meet.

Bone spurs can form on many parts of your body, including your:

- Hands
- Shoulders
- Neck
- Spine
- Hips
- Knees
- Feet (heels)

Most bone spurs do not cause problems. But if they rub against other bones or press on nerves, you might experience pain and stiffness.

What Causes Bone Spurs?

The most common cause of bone spurs is joint damage from osteoarthritis or degenerative joint disease. The cushioning between your joints and the bones of your spine can wear down with age. Rheumatoid arthritis, lupus, and gout can also damage your joints.

Bone spurs also often form after an injury to a joint or tendon. When your body thinks your bone is damaged, it tries to fix it by adding bone to the injured area.

Other causes of bone spurs include:

- Injuries
- Overuse – for example, if you run or dance a lot over a long period of time
- Genes
- Diet
- Obesity
- Bone problems that you were born with
- Narrowing of the spine (spinal stenosis)

What Are the Symptoms?

You might not realize you have a bone spur until you get an X-ray to look for another condition. They only cause problems when they press on nerves, tendons, or other structures in your body. Then, you might feel any of the following:

- Pain in the affected joint
- Pain or stiffness when you try to bend or move the affected joint
- Weakness, numbness, or tingling in your arms or legs if the bone spur presses on nerves in your spine
- Muscle spasms, cramps, or weakness
- Bumps under your skin, seen mainly in the hands and fingers
- Trouble controlling your bladder or bowels if the bone spur presses on certain nerves in your spine (a symptom that is seen very rarely)

Your symptoms might get worse when you exercise or try to move the affected joint.

A bone spur can break off and get stuck in the lining of the joint. This is called a "loose body." It can lock up the joint and make it hard to move.

- **Vitamin C**
Papaya, bell peppers, strawberries, cantaloupe, tomatoes, blueberries, blackberries, honeydew, raspberries, swiss chard, kiwi, elderberries, mango, guava, gooseberries, onions, squash, key limes, apricots, nori, okra, watermelon, prickly pears
- **Calcium**
Mushrooms, sunlight, okra, fennel, swish chard, squash, coconut meat, brazil nuts, dates, figs, apricots, prickly pears, kiwi, mulberries, onions, avocados, sapote, sesame seeds
- **Magnesium**
Dried figs, avocado, swiss chard, leafy greens, squash, bananas, burros, cocoa, quinoa, wild rice, walnuts, hemp seeds, sesame seeds, okra, dill, basil, chives, brazil nuts, watermelon seeds

Muscle Cramps

According to Mayo Clinic, A muscle cramp is a sudden and involuntary contraction of one or more of your muscles. If you have ever been awakened in the night or stopped in your tracks by a sudden charley horse, you know that muscle cramps can cause severe pain. Though generally harmless, muscle cramps can make it temporarily impossible to use the affected muscle.

Long periods of exercise or physical labor, particularly in hot weather, can lead to muscle cramps. Some medications and certain medical conditions also may cause muscle cramps. You usually can treat muscle cramps at home with self-care measures.

Symptoms

Most muscle cramps develop in the leg muscles, particularly in the calf. Besides the sudden, sharp pain, you might also feel or see a hard lump of muscle tissue beneath your skin.

- **Vitamin C**
Papaya, bell peppers, strawberries, cantaloupe, tomatoes, blueberries, blackberries, honeydew, raspberries, swiss chard, kiwi, elderberries, mango, guava, gooseberries, onions, squash, key limes, apricots, nori, okra, watermelon, prickly pears
- **Calcium**
Mushrooms, sunlight, okra, fennel, swiss chard, squash, coconut meat, brazil nuts, dates, figs, apricots, prickly pears, kiwi, mulberries, onions, avocados, sapote, sesame seeds
- **Magnesium**
Dried figs, avocado, swiss chard, leafy greens, squash, bananas, burros, cocoa, quinoa, wild rice, walnuts, hemp seeds, sesame seeds, okra, dill, basil, chives, brazil nuts, watermelon seeds
- **Vitamin B Complex**
Berries, cantaloupe, key limes, avocados, tomatoes, mushrooms, apples, cherries, peppers, ginger, onions, cucumbers
- **Vitamin D**
Sunlight, mushrooms, dried figs
- **Vitamin E**
Pears, quinoa, kiwi, swiss chard, mangoes, tomatoes, avocados, walnuts, apricots, bell peppers, cucumbers, squash
- **Vitamin B3**
Black Currant, Avocado, Tomatoes, Mushrooms, Tahini, Dandelion Greens, Dates, Swiss Chard, Paprika, Prunes, Mangoes, Nectarines, Burros, Baby Bananas, Teff, Bell Peppers
- **Potassium**
Avocados, burros, mushrooms, zucchini, eggplant, squash, leafy greens, tomatoes, watermelon, coconut water, swiss chard, kiwi, cantaloupe, brazil nuts, dried fruit
- **Vitamin B1**
Wild rice, mushrooms, romaine lettuce, quinoa, tahini, squash, watermelon, tomatoes, sesame seeds, apricots

Osteoporosis

According to Mayo Clinic, Osteoporosis causes bones to become weak and brittle — so brittle that a fall or even mild stresses such as bending over or coughing can cause a fracture.

Osteoporosis-related fractures most commonly occur in the hip, wrist or spine.

Bone is living tissue that is constantly being broken down and replaced. Osteoporosis occurs when the creation of new bone doesn't keep up with the loss of old bone.

Osteoporosis affects men and women of all races. But white and Asian women — especially older women who are past menopause — are at highest risk. Medications, healthy diet and weight-bearing exercise can help prevent bone loss or strengthen already weak bones

Symptoms

There typically are no symptoms in the early stages of bone loss. But once your bones have been weakened by osteoporosis, you might have signs and symptoms that include:

1. Back pain, caused by a fractured or collapsed vertebra
 2. Loss of height over time
 3. A stooped posture
 4. A bone that breaks much more easily than expected
- **Calcium**
Mushrooms, sunlight, okra, fennel, swish chard, squash, coconut meat, brazil nuts, dates, figs, apricots, prickly pears, kiwi, mulberries, onions, avocados, sapote, sesame seeds
 - **Magnesium**
Dried figs, avocado, swiss chard, leafy greens, squash, bananas, burros, cocoa, quinoa, wild rice, walnuts, hemp seeds, sesame seeds, okra, dill, basil, chives, brazil nuts, watermelon seeds
 - **Vitamin A**
Raspberries, melons, honeydew, tomatoes, peppers, mangoes, squash, papaya, peaches, avocados, apricots, plums
 - **Vitamin E**
Pears, quinoa, kiwi, swiss chard, mangoes, tomatoes, avocados, walnuts, apricots, bell peppers, cucumbers, squash
 - **Zinc**
Chickpeas, mushrooms, raspberries, prunes, dates, blackberries, avocados, dried figs, strawberries, cantaloupe, mangoes, watermelon seeds, coconuts, cocoa, sesame seeds, zucchini
 - **Biotin**
Mushrooms, Walnut, Wild Rice, Avocado, Berries, Tomatoes, Swiss Chard, Onions, Watermelon
 - **Manganese**
Walnuts, Dark Chocolate, Chickpeas, Pineapples, Rye, Teff, Amaranth, Strawberries, Raspberries, Peaches, Figs, Avocados, Apple, Apricots, Burros, Cantaloupe, Green Leafy Vegetables, Brazil Nuts, Hemp Seeds, Sesame Seed

- **Vitamin D**
Sunlight, mushrooms, dried figs
- **Copper**
Dried apricots, mushrooms, cocoa, sesame seeds, chickpeas, avocados, walnuts, prunes, brazil nuts
- **Vitamin K**
Romaine, green pears, strawberries, avocados, kiwi, cucumbers, honeydew, arugula, key limes, prunes, swiss chard, olive oil, peppers, squash, tomato, apricots, onions, okra, blueberries
- **Biotin**
Mushrooms, Walnut, Wild Rice, Avocado, Berries, Tomatoes, Swiss Chard, Onions, Watermelon
- **Boron**
Avocado, Apple, Pear, Walnuts, Seeded Grapes, Raisins, Dates, Apricots, Watermelon, Prunes, Peaches, Honeydew, Baby Bananas, Burros
- **Silicon**
Strawberries, Chickpeas, Walnuts, Avocado, Sesame Seed, Onions, Tomatoes, High Fiber Foods

Paget's Disease

According to Mayo Clinic, Paget's disease of bone interferes with your body's normal recycling process, in which new bone tissue gradually replaces old bone tissue. Over time, the disease can cause affected bones to become fragile and misshapen. Paget's disease of bone most commonly occurs in the pelvis, skull, spine and legs.

The risk of Paget's disease of bone increases with age. Your risk also increases if any family members have the disorder. Complications of Paget's disease of bone can include broken bones, hearing loss and pinched nerves in your spine.

Symptoms

1. Most people who have Paget's disease of bone have no symptoms. When symptoms occur, the most common complaint is bone pain.
2. Because this disease causes your body to generate new bone faster than normal, the rapid remodeling produces bone that's softer and weaker than normal bone, which can lead to bone pain, deformities and fractures.
3. The disease might affect only one or two areas of your body or might be widespread. Your signs and symptoms, if any, will depend on the affected part of your body.
4. Pelvis. Paget's disease of bone in the pelvis can cause hip pain.
5. Skull. An overgrowth of bone in the skull can cause hearing loss or headaches.

6. Spine. If your spine is affected, nerve roots can become compressed. This can cause pain, tingling and numbness in an arm or leg.
7. Leg. As the bones weaken, they may bend — causing you to become bowlegged. Enlarged and misshapen bones in your legs can put extra stress on nearby joints, which may cause osteoarthritis in your knee or hip.

- **Calcium**

Mushrooms, sunlight, okra, fennel, swish chard, squash, coconut meat, brazil nuts, dates, figs, apricots, prickly pears, kiwi, mulberries, onions, avocados, sapote, sesame seeds

- **Magnesium**

Dried figs, avocado, swiss chard, leafy greens, squash, bananas, burros, cocoa, quinoa, wild rice, walnuts, hemp seeds, sesame seeds, okra, dill, basil, chives, brazil nuts, watermelon seeds

- **Vitamin A**

Raspberries, melons, honeydew, tomatoes, peppers, mangoes, squash, papaya, peaches, avocados, apricots, plums

- **Zinc**

Chickpeas, mushrooms, raspberries, prunes, dates, blackberries, avocados, dried figs, strawberries, cantaloupe, mangoes, watermelon seeds, coconuts, cocoa, sesame seeds, zucchini

- **Manganese**

Walnuts, Dark Chocolate, Chickpeas, Pineapples, Rye, Teff, Amaranth, Strawberries, Raspberries, Peaches, Figs, Avocados, Apple, Apricots, Burros, Cantaloupe, Green Leafy Vegetables, Brazil Nuts, Hemp Seeds, Sesame Seed

- **Vitamin D**

Sunlight, mushrooms, dried figs

- **Vitamin K**

Romaine, green pears, strawberries, avocados, kiwi, cucumbers, honeydew, arugula, key limes, prunes, swiss chard, olive oil, peppers, squash, tomato, apricots, onions, okra, blueberries

- **Vitamin B Complex**

Berries, cantaloupe, key limes, avocados, tomatoes, mushrooms, apples, cherries, peppers, ginger, onions, cucumbers

- **Vitamin B12**

Cremini mushrooms, nori, cereal, nuts, leafy greens

- **Beta-carotene**

Raspberries, melons, papayas, mangoes, cherry tomatoes, cantaloupe, watermelon, apricots, dandelion greens, peaches, peppers, squash, avocados

- **Folic Acid (Folate)**

Rye, walnuts, avocados, chickpeas, guava, strawberries, burros, tahini, cantaloupe, mangoes, papaya, okra, bell peppers, leafy greens, quinoa, arugula, romaine lettuce

- **Phosphorus**

Sesame Seeds, Brazil nuts, Mushrooms, Chickpeas, Lentils, Kiwi, Amaranth, Dried Fruits

Strength Building

CLICK the link to learn all about STRENGTH

<https://www.womenshealthmag.com/fitness/a30522035/what-is-strength-training/>

- **Calcium**

Mushrooms, sunlight, okra, fennel, swish chard, squash, coconut meat, brazil nuts, dates, figs, apricots, prickly pears, kiwi, mulberries, onions, avocados, sapote, sesame seeds

- **Magnesium**

Dried figs, avocado, swiss chard, leafy greens, squash, bananas, burros, cocoa, quinoa, wild rice, walnuts, hemp seeds, sesame seeds, okra, dill, basil, chives, brazil nuts, watermelon seeds

- **Vitamin A**

Raspberries, melons, honeydew, tomatoes, peppers, mangoes, squash, papaya, peaches, avocados, apricots, plums

- **Vitamin E**

Pears, quinoa, kiwi, swiss chard, mangoes, tomatoes, avocados, walnuts, apricots, bell peppers, cucumbers, squash

- **Zinc**

Chickpeas, mushrooms, raspberries, prunes, dates, blackberries, avocados, dried figs, strawberries, cantaloupe, mangoes, watermelon seeds, coconuts, cocoa, sesame seeds, zucchini

- **Biotin**

Mushrooms, Walnut, Wild Rice, Avocado, Berries, Tomatoes, Swiss Chard, Onions, Watermelon

- **Vitamin D**

Sunlight, mushrooms, dried figs

- **Vitamin K**

Romaine, green pears, strawberries, avocados, kiwi, cucumbers, honeydew, arugula, key limes, prunes, swiss chard, olive oil, peppers, squash, tomato, apricots, onions, okra, blueberries

- **Beta-carotene**

Raspberries, melons, papayas, mangoes, cherry tomatoes, cantaloupe, watermelon, apricots, dandelion greens, peaches, peppers, squash, avocados

- **Folic Acid (Folate)**

Rye, walnuts, avocados, chickpeas, guava, strawberries, burros, tahini, cantaloupe, mangoes, papaya, okra, bell peppers, leafy greens, quinoa, arugula, romaine lettuce

- **Vitamin B Complex**

Berries, cantaloupe, key limes, avocados, tomatoes, mushrooms, apples, cherries, peppers, ginger, onions, cucumbers