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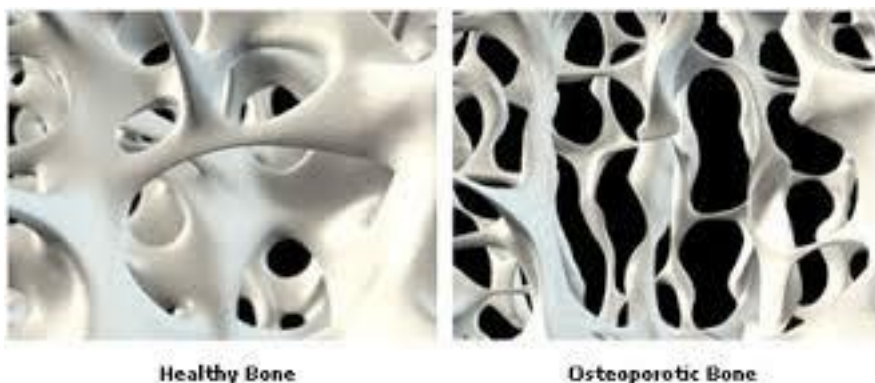
Considering that weakening of the bones (termed osteoporosis by doctors) can lead to significant pain and difficulty functioning, spinal deformity, and even serious illness or death in the most severe cases, there is a clear need for increased awareness of this disease and its prevention.

It's never too late or too early to improve your bone health. The average person eats too little calcium and people living in developed countries do not get enough physical activity to strengthen their bones,

What can I do to increase my bone health and prevent osteoporosis?

1. Understand osteoporosis and osteoporosis risk factors

"Osteo" means bone, and "porosis" means something that has holes in it, like a sponge. Therefore, osteoporosis is a disease which causes bones to become more porous, gradually making them weaker, more brittle and likely to break. It is a silent disease until we get a fracture with minimal trauma.



Various factors like age, gender, family history, race, body type, menstrual history, and personal lifestyle and history can make certain patients more susceptible to osteoporosis with ageing.

Too many of us assume we are not at risk for bone loss or fractures. We believe that if we haven't had any signs of bone damage, then our bones are strong. Because there are no obvious warning signs, even doctors often miss signs of the problem. Most of us have our blood pressure and cholesterol checked for heart health. Testing bone density for the population at risk is the surest way to check for bone health.

Heredity and a family history of osteoporosis and/or fracture on the mother's side of the family can be early warning signs for some patients to be more proactive in how they exercise and eat. It is important for individuals to know their genetic predisposition to osteoporosis. Genetics plays an important role. It is estimated that about 75% of an individual's peak bone mass is influenced by genetics. The risk of osteoporosis is highest among women. It is also higher for Whites and Asians than other groups. However, it's important to remember that it is a real risk for older men and women of all backgrounds.

That's why it is important to know the risks for poor bone health at all ages. There are many "red flags" that are signs that you are at risk for weak bones. In addition, your calcium and vitamin D intake, level of physical activity, and medications should all be evaluated.

Practical tip.

Check the following list for osteoporosis risk factors.

Check any of these that apply to you.

- I'm older than 65.
- I've broken a bone after age 50.
- My close relative has osteoporosis or has broken a bone.
- My health is "fair" or "poor."
- I smoke.
- I am underweight for my height.
- I started menopause before age 45.
- I've never gotten enough calcium.

___ I have more than two drinks of alcohol several times a week.

___ I have poor vision, even with glasses.

___ I sometimes fall.

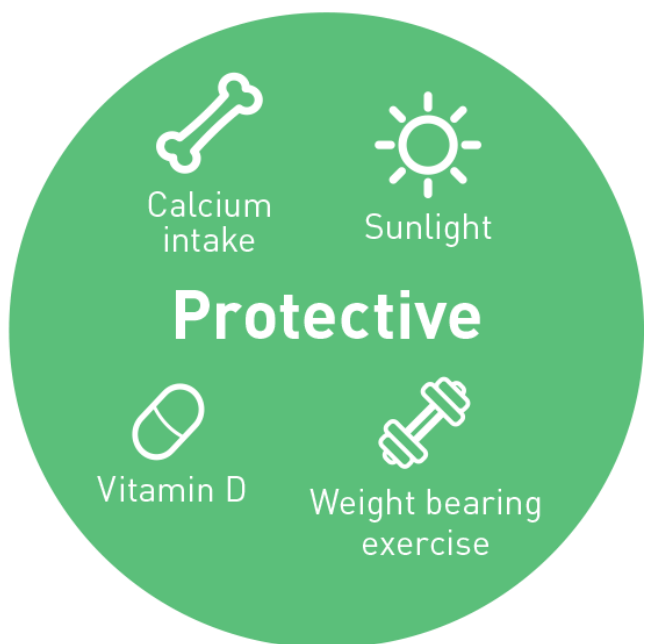
___ I'm not active.

___ I have one of these medical conditions:

- Hyperthyroidism
- Chronic lung disease
- Cancer
- Inflammatory bowel disease
- Chronic hepatic or renal disease
- Hyperparathyroidism
- Vitamin D deficiency
- Cushing's disease
- Multiple sclerosis
- Rheumatoid arthritis

___ I take one of these medicines:

- Oral glucocorticoids (steroids)
- Cancer treatments (radiation, chemotherapy)
- Thyroid medicine
- Antiepileptic medications
- Gonadal hormone suppression
- Immunosuppressive agents



If you have any of these “red flags,” you could be at high risk for weak bones. Talk to your doctor, nurse, pharmacist, or other health care professional.

2. Get yourself some calcium

Calcium not only promotes bone strength, it also helps the heart, blood, muscles and nerves. When the body does not get enough calcium, it will pull it out of the bones, stripping them of calcium and making them weaker.

A diet that focuses on more calcium intake can go a long way toward ensuring bone strength and minimising osteoporosis.

For adults ages 19 to 50 and men ages 51 to 70, the recommended dietary allowance (RDA by the Food and Nutrition Board (FNB) of the Institute of Medicine, United States) is 1,000 milligrams (mg) of calcium a day. The recommendation increases to 1,200 mg a day for women after age 50 and for men after age 70.

Food labels, like this skim milk label, tell you how much calcium and vitamin D you get per serving

Nutrition Facts	
Serving Size 1 cup (236mL)	
Servings Per Container 8	
Amount Per Serving	
Calories 90	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 5mg	2%
Sodium 125mg	5%
Total Carbohydrate 13g	4%
Dietary Fiber 0g	0%
Sugars 12g	
Protein 8g	
Vitamin A 10%	Vitamin C 4%
Calcium 30%	Iron 0%
Vitamin D 25%	
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	
INGREDIENTS: MILK, VITAMIN D₃ ADDED.	

If this is your age, then you need this much calcium each day (mg).

0 to 6 months	200
6 to 12 months	260
1 to 3 years	700
4 to 8 years	1,000
9 to 18 years	1,300
19 to 50 years	1,000
51- to 70-year-old males	1,000
51- to 70-year-old females	1,200
>70 years old	1,200

Calcium content (mg) of some foods

Food	mg	Points
Fortified oatmeal, 1 packet	350	3
Sardines, canned in oil, with bones, 3 oz.	324	3
Cheddar cheese, 1 1/2 oz. shredded	306	3
Milk, nonfat, 1 cup	302	3
Milkshake, 1 cup	300	3
Yogurt, plain, low-fat, 1 cup	300	3
Soybeans, cooked, 1 cup	261	3
Tofu, firm, with calcium, 1/2 cup	204	2
Orange juice, fortified with calcium, 6 oz.	200-260 (varies)	2-3
Salmon, canned, with edible bones, 3 oz.	181	2
Pudding, instant made with 2% milk, 1/2 cup	153	2
Baked beans, 1 cup	142	1
Cottage cheese, 1% milk fat, 1 cup	138	1
Spaghetti, lasagna, 1 cup	125	1
Frozen yogurt, vanilla, soft-serve, 1/2 cup	103	1
Ready-to-eat calcium fortified cereal, 1 cup	100-1000 (varies)	1-10
Cheese pizza, 1 slice	100	1
Fortified waffles, 2	100	1
Turnip greens, boiled, 1/2 cup	99	1
Broccoli, raw, 1 cup	90	1
Ice cream, vanilla, 1/2 cup	85	1
Soy or rice milk, fortified, 1 cup	80-500 (varies)	1-5

Include in your daily diet:

- cereals



- vegetables
- legumes (lentils, beans)
- fruit
- milk, yoghurt, cheese
- lean meat
- fish
- poultry
- nuts

Snacking in yogurt, cottage cheese and other low-fat dairy foods adds bone-strengthening calcium to your diet. Other bone-building snacks include almonds, dried figs, calcium-fortified tofu and, if you prefer non-dairy, soy milk.

Practical tips

Learn to read calcium content in food labels and for adults aim to have 1000 mg=10 points per day.

To meet daily calcium requirements include:

-Two serves of dairy

-A serve of calcium-rich foods such as broccoli, beans, almonds, tinned salmon or sardines on and other calcium-rich foods.

3. Take supplements

For osteoporosis prevention, taking a supplement will be advised by your doctor once you reach a certain age or have osteopenia (a condition in which bone mineral density is lower than normal but not low enough to be classified as osteoporosis). Your doctor may suggest taking an over-the-counter (OTC) version of calcium and vitamin D, as well as folate, a B vitamin that can aid in reducing elevated levels of homocysteine.

If you take corticosteroids, such as prednisone, you may need to increase your OTC vitamin D intake or get a prescription version. Prednisone blocks the body's ability to absorb the bone strengthening vitamin. If you're taking prednisone, have your doctor regularly check your vitamin D levels.

Be aware that high doses of calcium from supplements could be hazardous to your heart. It's also important to avoid calcium-containing foods and supplements within an hour or so of taking bisphosphonates – bone-building drugs prescribed for osteoporosis.

Calcium supplements: All the calcium bottles on store shelves can be confusing. Basically, there are two types of calcium: calcium carbonate and calcium citrate, that can be purchased over the counter.

Calcium carbonate must be taken with food for the body to absorb it. Many women have side effects from calcium carbonate - - gastrointestinal upset, gassiness, and constipation. If you take calcium carbonate with magnesium, however, you won't likely have constipation.

Certain medications (proton pump inhibitors (PPI) like omeprazol) used to treat acid reflux (GERD) or peptic ulcers can interfere with absorption of calcium carbonate. If you use these you should probably take calcium citrate.

Calcium citrate is generally well tolerated, and can be taken without food. You might need to take more than one pill to get the recommended dosage, so take them at separate times to help your body absorb the calcium. If you take more than about 500 milligrams of calcium at one time your body will simply pass it as waste.

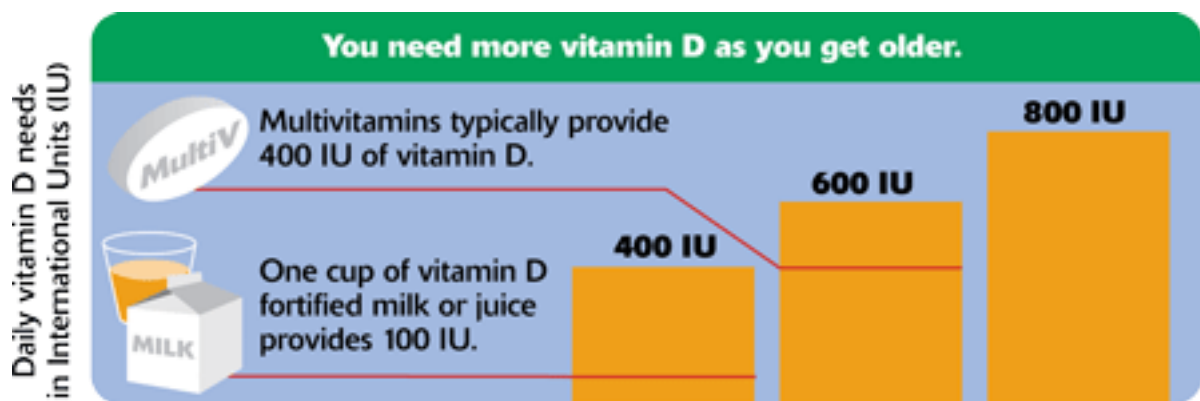
Practical tip

Check the supplement's label before buying. Look for either "pharmaceutical grade", "USP" (United States Pharmacopeia) "Ph. Eur. (European Pharmacopeia) standards. This will ensure high-quality pills.

4. Meet vitamin-D requirements

Like calcium, vitamin D plays a major role in preventing and minimising osteoporosis, but levels in patients are often insufficient. Vitamin D helps absorb calcium in the gastrointestinal tract and transfers it to the bones (reabsorption).

As you grow older, your need for vitamin D goes up. Vitamin D is made by your skin when you are in the sun. For many, especially seniors, getting enough vitamin D from sunshine is not practical. Almost all milk and some other foods are fortified with vitamin D. If you are not getting enough calcium and vitamin D in your diet, supplements can be bone savers.



You can get vitamin D in food (fortified dairy products, egg yolks, saltwater fish like tuna, and liver). Research suggests that vitamin D3 supplements may be a little bit better absorbed and retained than Vitamin D2. Current recommendations of the Food and Nutrition Board (FNB) of the United States government are of 600 IU/day for adults and 800 IU/day for seniors.

Practical tip

To meet your vitamin D needs in order to have normal absorption of calcium, choose foods that are known to have higher levels of vitamin D such as:

- mushrooms
- fish
- liver
- egg yolks

5. Make other changes to your diet

Boost bone density with vitamin Vitamin K. Vitamin K is mostly known for helping out with blood clotting, but it also helps the body make proteins for healthy bones. However, the exact way vitamin K contributes to bone health is unclear. Two studies on young girls showed that vitamin K had different effects: one showed that vitamin K slowed bone turnover, but it didn't have any effect on bone mineral density, while the other found the reverse.

Another study specifically compared the effects of vitamins K and D on calcium absorption in rats, and it turns out the two vitamins work well as a team: vitamin D stimulated calcium absorption in the intestines, while vitamin K reduced the amount of calcium excreted by the body.

Regardless of how vitamin K might help, fill up on it with foods like kale, broccoli, Swiss chard and spinach.

Pump up the potassium. Potassium isn't necessarily known for aiding bone health: it's a mineral that helps nerves and muscles communicate and also helps cells remove waste. But it turns out potassium may neutralise acids that remove calcium from the body. Studies in both pre- and postmenopausal women have shown that a diet high in potassium can improve bone health. In fact, the study involving premenopausal women showed an 8% difference in bone density between women with high potassium intake and those with low potassium intake.

Load up on potassium by eating foods like sweet potatoes, white potatoes (with the skin on), yogurt and bananas. Your bones need a variety of nutrients, including calcium and vitamins, C, D and K. You'll get vitamin K from kale, collard greens, broccoli, spinach and cabbage. Vitamin C is high in red and green bell peppers, strawberries, Brussels sprouts, oranges and pineapples. If you're not getting the recommended amount of these important vitamins and minerals from food alone, you may need to take supplements, but talk to your doctor first.

Take Protein and phosphorus

- Protein intake is important for bone development as it provides the necessary building blocks in bones. High protein foods include beef, veal, lamb and pork, chicken and turkey breast, tuna and soy beans.
- Phosphorus is a mineral and nutrient we all need for strong bones and proper cell functioning. Phosphorus is found in milk, grains like rice and oat bran, seeds, bacon and protein rich foods.
- Diets that are very high in protein and phosphorus can disrupt the calcium balance causing the body to take calcium from the bones. If you have an adequate calcium intake, then the effect of high protein and phosphorus is not as significant, which means adequate calcium intake is a priority.

Limit cola/soda

Studies have linked an increased likelihood of osteoporosis to drinking too much of these products. Substitute milk, juice, or water as often as possible.

And cut the fat

Consuming too much saturated fat can lead to a high level of homocysteine – a chemical in the body known to decrease bone mass.

Practical tip

Introduce a Mediterranean diet.

Studies have shown that a Mediterranean diet may play a role in protecting bone density. Mediterranean diets include high

consumption of olives, olive oil, vegetables, fruit, legumes, moderate consumption of dairy and fish, and a low consumption of meat and meat products.

6. Put weight into exercising and maintain a healthy weight

Being too heavy or too thin are risk factors for osteoporosis. Along with healthy eating, exercise is a key part of osteoporosis prevention and treatment.

Calcium supplements and osteoporosis medications can stop bone loss-- which allows the bone to rebuild itself, but the bones need to be under stress to get stronger. That's why exercise is important for better bone health.

Like muscles, bones become stronger when they are active. Weight-bearing exercise strengthens bones by making them produce more cells. The best exercises for building stronger bones include brisk walking, dancing or aerobics, and muscle strengthening exercises. Be sure to talk with your doctor before you begin any exercise regimen.

Make walking a daily ritual

Walking, jogging and light aerobics make your bones and muscles work against gravity -- which puts stress on the skeleton, which strengthens bones. Bicycling is also good for bones; it offers some resistance, which improves muscle mass and strengthens bones. Swimming, however, is not a good bone-booster.

Weight bearing exercise

Is exercise done while on your feet so you bear your own weight and support your skeleton, is the key to good bone health. This includes fast paced walking (to have an effect on your bones), running, tennis or dancing. Walking at a fast pace and jogging have been found to help strengthen bone mass – sedate and slow walking may not be as protective of bone.

High intensity, rapid impact exercise stimulates bone cell formation. This form of exercise generally refers to weight bearing exercise that involves more load placed through the leg bones and spine, during landing after lifting one's own body weight off the ground. Examples



of this include running, skipping, jumping, high impact aerobics and team sports such as netball.

Do 30 minutes of weight-bearing exercise five days a week if you can. This might include:

- gym resistance training (set by a trained instructor)
- medium impact aerobics
- skipping
- dancing
- jumping exercises

Certain physical activities can increase your risk of fracture, so any exercise activity should first be discussed with your doctor.

Strength training

These activities are also known as resistance exercises. Strength training uses weights of some kind (e.g. machines, dumbbells, ankle or wrist weights) to create resistance, which helps to build muscle mass. It includes activities that use one's own body weight as the load (e.g. push-ups, where load is placed through the arms and shoulders).

Load placed on bone leads to increased bone formation at the site where the load is greatest. The benefit is site specific, so if you are using weights on your legs, it only benefits your leg bones.

Ideally strength training programs should be performed regularly, 2-3 times per week. Strength training is most beneficial when a small number of repetitions (e.g. 8-12) are used, and the weight is progressively increased. As your strength improves, it is best to increase the weight used in the exercise rather than increasing the number of repetitions.

There is evidence to suggest high impact loading and resistance type/strength training activities probably provide the most benefit for improving bone mineral density.

Physiotherapy

A physiotherapist can provide assistance with bone strengthening exercises and fall prevention by addressing:

- posture
- balance
- coordination
- muscle strength

If you have had a fracture, a physiotherapist or exercise physiologist can tailor an exercise program to suit your needs as part of your rehabilitation.

Hydrotherapy

Using warm water activities is particularly beneficial if you need to be careful with exercise. The buoyancy of the water allows for easier movement and less chance of pain. Supervised muscle strengthening exercises can help both rebuild bone and improve balance and posture, thereby assisting in the prevention of falls.

Risky exercises if you might suffer a fracture

If you have osteoporosis it may be best to avoid some of the following exercises:

Dynamic abdominal exercises

Sit ups

Twisting movements

Golf swings

Trunk flexion

Bending forward

Sudden jerking movements

Tennis

High impact exercise

Jumping

Activity programs

Before you start

- If you have not been active regularly, see your doctor before you start any exercise or physical activity program
- If you have osteoporosis, see your doctor and seek advice from a physiotherapist or exercise physiologist

Starting your program

- Start slowly and progress gradually
- Choose something you enjoy
- Join a group or a gym
- Wear appropriate footwear such as supportive runners

Keeping your program on track

- Vary your activity
- Get active with a friend – start a walking group, join a line dancing group or take up yoga or Tai Chi
- Pay up front for activities that incur a cost to motivate you to keep going
- Keep an activity diary and schedule your activity at the start of each week
- Match your activity to the weather and seasons – outdoor walking, gardening, Tai Chi for warmer weather and indoor line dancing, gym and yoga for cooler weather
- Listen to your body – if there is any pain, seek professional advice

If any pain is experienced during exercises, the exercises should be stopped and if the pain persists you should consult your doctor.

A word on excessive exercise

For females, if you do not have periods, the emphasis of treatment is to restore normal period patterns and this may mean:

- changing training routines
- if you are underweight, making sure you have an adequate intake of calories from a wide variety of foods
- using the oral contraceptive pill to restore estrogen levels

Core strengthening is critical, too. Abdominal exercises, lower back exercises, yoga, Pilates, and tai chi help strengthen the spine. The other thing about yoga, Pilates and tai chi -- they improve balance, which prevents falls.

Tell your instructor that you have osteoporosis. If you're taking yoga or Pilates, make sure you have a certified instructor. You need close supervision to make sure you don't harm yourself.

Stretch it out

Round out your workouts with stretching to help avoid a hunched-over posture down the road.

Lengthening tight muscles reduces back pain and promotes good spinal mechanics and posture.

Muscles that are commonly tight include those you use to arch your back (spinal extensors); raise and rotate your shoulders (shoulder elevators and external rotators); lift your knees (hip flexors) and pull your feet toward your body (ankle dorsiflexors).

Perform stretches slowly and smoothly, to a point of stretch, not pain.

For maximum benefit, do stretches once or twice a day, holding each stretch for 20 to 30 seconds.

Regularly incorporating weight-bearing activities like jogging, walking, climbing the stairs, dancing, hiking, and playing volleyball or tennis for 20-30 minutes, 3-4 times a week is good for your bones, and also promotes overall physical and mental health.

Practical tips

Take a hike. Try to engage in at least 30 minutes of exercise every day, by jogging, brisk walking or aerobics — at whatever level of ability. As you build stamina, increase the duration and intensity of your exercise.

To see real improvements in bone density, you need to push your intensity. Increasing your pace for short intervals or going up and down hills will place appropriate forces on your bones.

Alternate higher-intensity exercises two to three days a week with lower-intensity activities four to five days a week for best results.

Lift weights.

Resistance exercise requires muscular strength, which improves muscle mass and strengthens and supports bone. Examples of resistance training tools include free weights, wrist weights, weighted vests, exercise bands and resistance machines found at gyms and health clubs. Strive for two to three resistance training workouts a week.

7. Avoid excessive alcohol use

While it isn't exactly understood how alcohol affects bone, studies have shown that people who consume more than 3 ounces of alcohol (roughly 6 drinks) each day increase the likelihood of having more bone loss than those people with minimal alcohol intake.

If you drink alcohol, stick to no more than one drink a day, or up to seven a week for women, and no more than two a day, or up to 10 a week for men. Consuming more than two alcoholic drinks per day raises the risk of falls and bone loss.

While heavy alcohol consumption can cause bone loss (because it interferes with vitamin D doing its job), moderate consumption (that's one drink per day for women, two per day for men) is fine — and recent studies actually show it may help slow bone loss. Bottoms up!

Practical tip

Aim for 1 alcoholic drink a day but have at least 1-2 alcohol free days a week

8. Don't smoke

Smoking cigarettes is one of the worst things you can do for your health and your bones.

Several studies have shown that smokers have lower bone mass and a higher risk of fractures than non-smokers, and the risk increases with the number of years and cigarettes one smokes, according to the National Institutes of Health. Compared with nonsmokers, women who smoke often produce less estrogen and tend to experience menopause earlier, which may lead to increased bone loss. It also increases the risk of osteoporosis, specifically by reducing blood flow to the bones, slowing the production of bone-forming cells and impairing calcium absorption.

Practical tip
Stop smoking today!

9. Consume less caffeine

Caffeine does have some health benefits, but unfortunately not for our bones. Too much of it can interfere with the body's ability to absorb calcium. One study showed that drinking more than two cups of coffee per day accelerated bone loss in subjects who also didn't consume enough calcium. Another study (albeit on elderly women) showed that more than 18 ounces of coffee per day can accelerate bone loss by negatively interacting with vitamin D. So enjoy the java, but keep it in moderation and consume enough calcium, too.

Practical tip
Replace caffeine drinks with water and herbal teas.

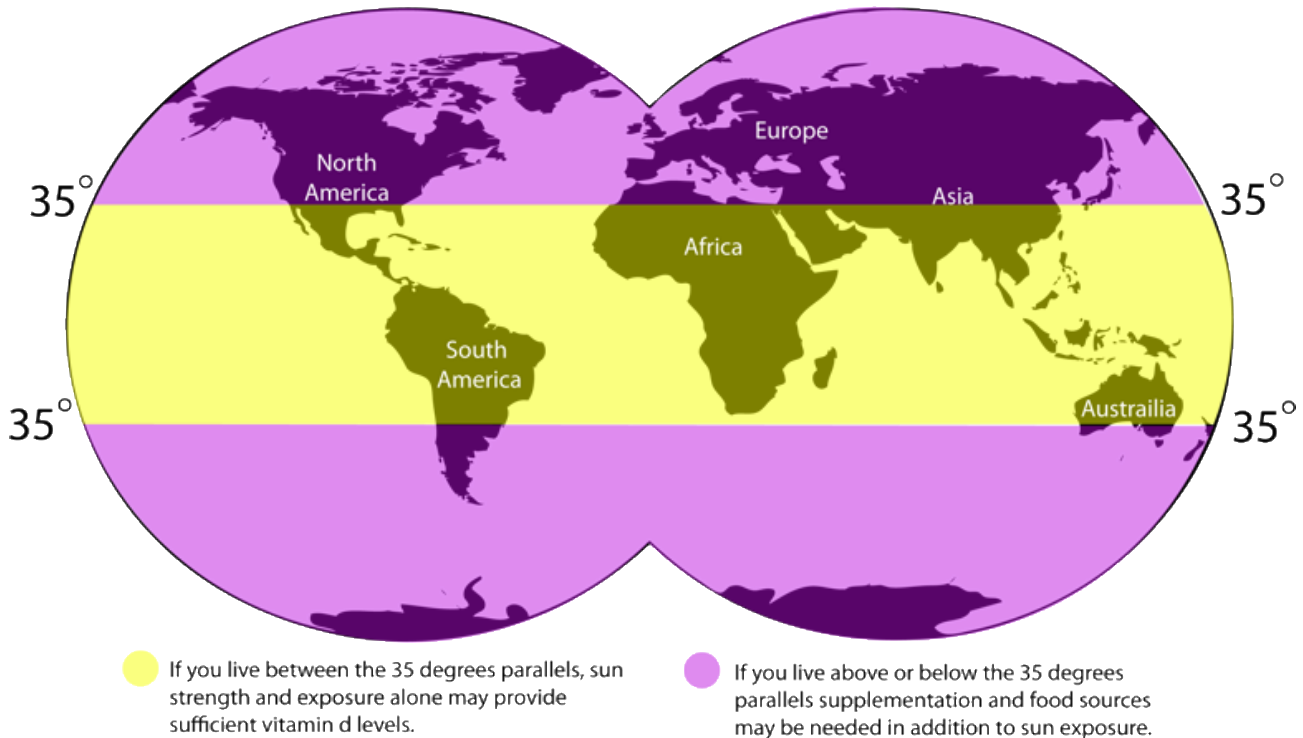
10. Spend Some Time in the Sun

Your skin makes vitamin D in response to sun exposure, and your body needs vitamin D to absorb calcium and build healthy bones. The amount of vitamin D you get from exposing your bare skin to the sun depends on:

- The time of the day - your skin produces vitamin D if you expose it during the middle of the day.
- Where you live - the closer to the equator you live, the easier it is for you to produce vitamin D from sunlight all year round.
- The colour of your skin - pale skins make vitamin D more quickly than darker skins.
- The amount of skin you expose - the more the better.

If you live above or below the 35 degrees parallel or don't spend much time outdoors, you may need to increase your vitamin D-containing foods or add a vitamin D supplement to get your recommended daily intake as shown in the figure below.

Vitamin D Sun Exposure Zones



Practical tip

Maintain vitamin D with sunbathing daily without sunscreen. Make sure your shadow is shorter than you are. Regarding timing, a good rule of thumb is to get the sun exposure it takes for your skin to turn pink and expose as much skin as possible. The paler your skin type the more easily your skin will produce vitamin D. If you have very fair skin it might take around 15 minutes. On the other hand if you have dark skin it might take up to 2 hours.

12 . Prevent falls

Falls are not just the result of getting older. But as you age, falls become more dangerous. Most falls can be prevented. By changing some of the things listed here, you can lower the chances of falling for you or someone you love your home safer.

Practical tips

- Remove things you can trip over from stairs and places where you walk.
- Remove all small rugs.
- Don't use step stools. Keep items you need within easy reach.

- Have grab bars put in next to your toilet and in the bathtub or shower.
- Use non-slip mats in the bathtub and shower.
- Use brighter light bulbs in your home.
- Add handrails and light in all staircases.
- Wear shoes that give good support and have non-slip soles.

13. Have your vision checked.

Poor vision increases your risk of falling. You could be wearing the wrong glasses or have a condition such as glaucoma or cataracts that limits your vision.

14. Explore osteoporosis-fighting medications with a doctor

A number of medications are approved for treating or preventing osteoporosis. They vary by class, delivery mechanisms, and frequency of intake.

Bisphosphonates (alendronate, risedronate, ibandronate) are examples of oral osteoporosis medications.

For other patients osteoporosis injections that are taken once-a-day, once-a-week, once every six months or once-a-year may be more preferable for preventing spine and hip fractures (teriparatide, denosumab, zoledronic acid).

Although there are many differences in these drugs, they work basically by slowing the breakdown of old bone, promoting the growth of new bone or both.

15. Review Your Medications

The medications you take can negatively affect your bones.

Chief among these are corticosteroids such as prednisone, prescribed for inflammatory forms of arthritis. They weaken bones by decreasing the amount of calcium absorbed in the intestines and increasing the amount excreted by the kidneys. One way to minimise the risk of bone damage is to take the lowest dose for the shortest time possible to decrease inflammation. If only one or a few joints are affected, injecting corticosteroids directly into the joint(s) may relieve inflammation without the bone damage of oral corticosteroids. If you need corticosteroids in high doses or long

term, ask your doctor about medications to prevent or treat osteoporosis.

Another class of drug to watch out for is proton pump inhibitors, like esomeprazole and omeprazole. They often are prescribed with anti-inflammatory drugs to control gastrointestinal irritation.

16. See Your Doctor

Talk to your doctor about bone health. Together you can evaluate your risks. Some things to discuss include your current health, your diet and physical activity levels, and your family background.

Your doctor can look at your age, weight, height, and medical history. From that he or she can determine if you need a bone density test. Broken bones are a “red flag” for your doctor. If you break a bone after the age of 50, talk to your doctor about measuring your bone density. Even if you broke a bone in an accident, you might have weak bones. It is worth checking.

Your doctor might recommend a medical test called a bone mineral density test. Bone density tests use x-rays or sound waves to measure how strong your bones are. These tests are quick (5 to 10 minutes), safe, and painless. They will give you and your doctor an idea of how healthy your bones are. All women over 65 should have a bone density test. Women who are younger than 65 and at high risk for fractures should also have a bone density test.

Your doctor might also want to do a blood test to check for a vitamin D deficiency or abnormal calcium levels.

What to discuss with your doctor

Talk with your doctor, nurse, or other health care professional about your bone health. Use this checklist to start your discussion.

_____ Ask to check your risk for bone disease.

_____ Discuss your need for a bone density test.

_____ Talk about any fall, even ones in which you were not hurt. Tell him or her about any broken bones you’ve had.

_____ If you have fallen, ask about the need for a full evaluation.

Tests include vision, balance, walking, muscle strength, heart function, and blood pressure.

_____ Go over all the medications you are taking (including over-the-counter ones). Do this at least once a year.

This helps avoid dangerous drug interactions and taking higher doses of drugs than you need, which can lead to falls.

_____ Ask if your doctor checks vision. Annual vision checks can help eliminate bone-breaking falls.

_____ Know your calcium and vitamin D intake. Report your totals to your doctor.

_____ If you would like to try a new physical activity, ask about the best choices for you.

Your doctor can explain your own risk -- as well as options for preventing and treating bone loss.

Practical tips

These are questions you might ask your doctor:

How can I best improve my bone health?

What is the best calcium to take?

What medication can help me?

Has this medication been proven to lower risk of fractures of spine and hip?

What are the side effects?

Do I need special instructions for taking my bone medication?

Will the medications affect other drugs that I'm taking for other conditions?

How will I know if the treatment is working?

How soon will I see a change?

How long will I take this medication?

Am I taking any medications that put me at risk for a fall?

What exercise is safest for me?

Are there exercises I should not do?

How can I know if I've fractured a bone in my spine?

What should I do to prevent falls?

How soon should I schedule my next appointment?

17. Protect your bones at every age

People of all ages need to know what they can do to have strong bones. You are never too old or too young to improve your bone health.

Babies

Bone growth starts before babies are born. Premature and low-birth-weight infants often need extra calcium, phosphorus, and protein to help them catch up on the nutrients they need for strong bones. Breastfed babies get the calcium and nutrients they need for good bone health from their mothers. That's why mothers who breastfeed need extra vitamin D. Most baby formula contains calcium and vitamin D.

Children

Good bone health starts early in life with good habits. While children and young adults rarely get bone diseases, kids can develop habits that endanger their health and bones. Parents can help by encouraging kids to eat healthful food and get at least an hour of physical activity every day. Jumping rope, running, and sports are fun activities that are great for building strong bones. Children need the amount of calcium equal to 3 servings of low-fat milk each day. If your child doesn't drink enough milk, try low-fat cheese, yogurt, or other foods that are high in calcium.

Teens

Teens are especially at risk for not developing strong bones because their bones are growing so rapidly. Boys and girls from ages 9 to 18 need 1,300 milligrams of calcium each day, more than any other age group. Parents can help teens by making sure they eat 4 servings of calcium-rich and vitamin-D-fortified foods a day. At least one hour a day of physical activities—like running, skateboarding, sports, and dance—is also critical. Studies show that only half of all teens exercise vigorously on a regular basis, and one-fourth do not exercise at all. But take note: extreme physical exercise, when combined with under-eating, can weaken teens' bones. In young women this situation can lead to a damaging lack of menstrual periods. Teens who miss adding bone to their skeletons during these critical years never make it up.

Adults

Adulthood is a time when we need to look carefully at our bone health. As adults, we need 1,000 to 1,200 milligrams of calcium, depending on our age, and at least 30 minutes of moderate physical

activity every day. Activity that puts some stress on your bones is very important.

Physical activity at least 30 minutes every day

Strength training 2-3 times a week

Balance training once a week

Many women over 50 are at risk for bone disease, but few know it. At menopause, which usually happens in women over 50, a woman's hormone production drops sharply. Because hormones help protect bones, menopause can lead to bone loss. Hormone therapy was widely used to prevent this loss, but now it is known to increase other risks. Your doctor can help advise you on protecting bone health around menopause.

Seniors

Seniors can take steps to help prevent bone problems. Physical activity and diet are vital to bone health in older adults. Calcium, together with vitamin D, helps reduce bone loss. Activities that put stress on bones keep them strong. Find time for activities like walking, dancing, and gardening. Strengthening your body helps prevent falls. Protecting yourself against falls is key to avoiding a broken hip or wrist. All women over 65 should have a bone density test.

Seniors should also know that recent studies conclude that anyone over age 50 should increase his or her vitamin D intake to 600 International Units (IU) per day. After age 70, 800 IU per day are needed.