Have No Fear

Dr. Susan Brown's

10

Drug-Free Action Steps You Can Take to Build Bone Naturally

Informing and empowering women to take charge of their bone health for three decades.

Better Bones

By Susan E. Brown, PhD, Director

The Center for Better Bones

East Syracuse, New York

Introduction

The fact that you have downloaded this e-book tells me that you are on the path, searching for natural ways to strengthen your bones—ways that are not only good for your bone, but also good for your entire body.

Hi, my name is Susan Brown, PhD. Some 30 years ago I asked myself this question:

"If every animal in the forest enjoys perfect bone health, why can't we?"

This was an important question for me at the time because I had just been told I had receding gums (an early warning sign of osteoporosis) and my grandmother had recently died from a hip fracture at the age of 102.

Thirty years and thousands of research and clinical practice hours later, I have learned that your bones were meant to last a lifetime—and I can show you how.

Whether you have been told you have osteoporosis, osteopenia, or if you have actually fractured, these **10 Drug-Free Action Steps** that I go through with all my clients will get you started in the right direction.

After each step I will lead you to more reading material as well as suggest an Action Step you can take right now to get started on the road to Better Bones and a Better Body.

Stay strong, be well, and thrive.

Step #1: Uncover your real risk of fracture

Have you been frightened by your doctor telling you that you are going to fracture because of low bone density?

What you need to know is that no single risk factor can predict fracture. In reality those at highest risk for fracture are those with multiple risk factors.

For example it is well known that ***low bone density alone is not enough to predict fracture.***

If you have:

❶ low bone density

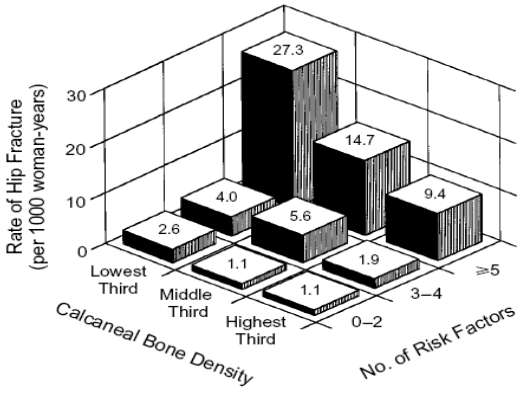
✚

❷ a strong family or personal history of fracture

AND

❸ a substandard diet or other bone-depleting factors shown on our camel,

you will be much more likely to fracture.



Hip fracture risk was 17 times greater among the 15 percent of the women who had five or more risk factors (exclusive of bone density) than the 47 percent of the women with two or fewer risk factors.

-Cummings, S. R. et al. 1995. Risk factors for hip fracture in white women. New England Journal of Medicine 332(12):767-773.

Action Step #1:

The greater your number of risk factors, the greater your likelihood of fracture.

Take our Better Bones fracture risk profile

to see your real risk of fracture.

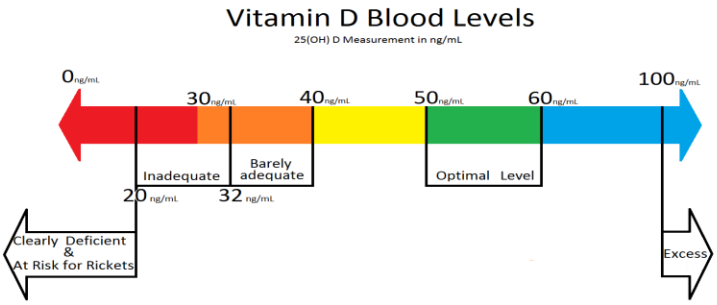
Step #2: Go beyond the calcium myth

Do you know that countries consuming the most calcium also have the highest incidence of osteoporotic fractures?

Calcium is important, but should never be taken alone. There are at least 20 key bone-essential nutrients that are critical for bone health and can be gotten through a balanced alkaline diet and selected nutrient supplementation.

In fact, some of these nutrients are **even more important than calcium:**

- **Vitamin K_2** – new research shows that vitamin K_2 effectively reduces bone breakdown and fracture risk. This amazing nutrient also protects you from arterial calcification.
- **Vitamin D** – this vitamin is absolutely essential for calcium absorption and utilization. If taken in adequate dose, vitamin D may well prevent up to 50% of all fractures.
- **Potassium** – this nutrient is the hidden bone builder that is seriously underconsumed. Potassium from vegetables, fruits, nuts, seeds, and spices is central for providing alkali reserves that protect bone from excess diet-induced acidity.



Remember that all nutrients work synergistically (the total is more than the sum of its parts). For best results you need a balanced formula as found in Dr. Brown's **44-nutrient-formula Better Bones Builder.**

Action Step #2:

Do not take calcium alone.

Take a look at Better Bones Builder and use our attached chart to compare it to your supplement to see if yours provides adequate doses of all essential bone nutrients.

Step #3: Realize that all osteoporosis has a cause

When osteoporosis is diagnosed, women are most often told simply to take a bone drug. Little attempt is made to look for the ***cause or causes*** of excessive bone loss and/or bone weakening.

Approximately 20% of osteoporosis in the U.S. is the result of corticosteroid use.

Did you know a recent Canadian study has found a possible 125 causes of osteoporosis?

Many of these causes are lifestyle related, including poor diet, lack of exercise, medication use, smoking, excessive steroid intake, and the like.

Your bones are meant to last a lifetime and if your bones are showing signs of weakening, it's important for you to find the underlying causes by requesting some simple medical tests.

Remember, if your doctor tells you that your bone situation is serious enough to require a bone drug, then it's certainly serious enough to test for underlying causes of any bone loss.

It is fine to have a bone density test, but make sure you are also tested for your current rate of bone breakdown by getting a marker of bone resorption test.

This is an inexpensive test that you should ask your doctor to order (N-Telopeptide test).

You can also self-order and self-pay for this test online.

Be sure to use the special urine collection procedure used at the Center for Better Bones.

Action Step #3:

Watch our video,

Uncovering the Hidden Causes of Bone Loss,
and talk to your doctor about which test might best help you uncover the hidden cause of your bone loss.

Then get tested!

Step #4: Understand that osteopenia is not a disease or even a disorder

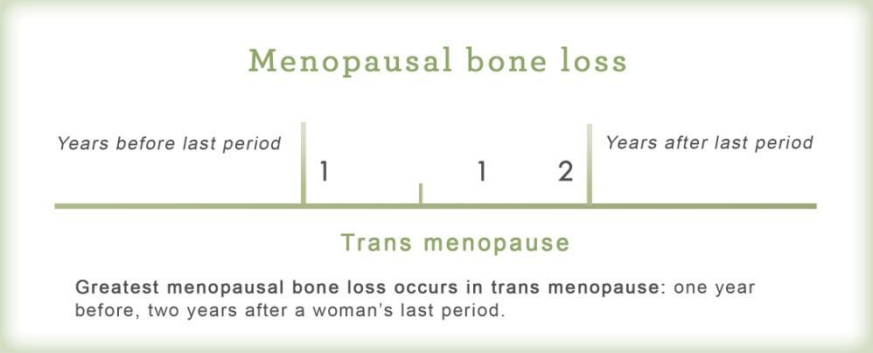
"Osteopenia was defined in June 1992 by the World Health Organization . . . It didn't have any particular diagnostic or therapeutic significance. It was just meant to show a huge group who looked like they might be at risk."

-Mayo Clinic

Osteopenia is simply a term invented to point out that someone's bone density is lower than that of the average 30 year old's. Osteopenia does not indicate bone strength or the health of your bones, and **certainly does not need to be treated with drugs.**

If you have been told you have osteopenia, this is a good time to reevaluate your natural bone health program and incorporate our full Better Bones, Better Body® Program.

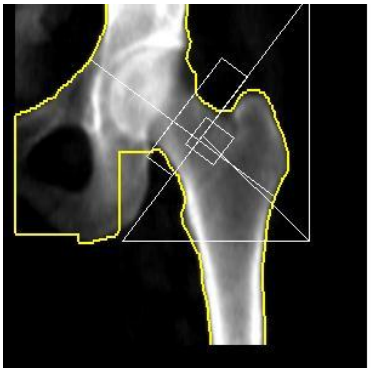
Many women are diagnosed with osteopenia when they get their first bone density test, which usually happens at menopause. Because it is normal and natural to lose about 10% of bone mass between the first few years before and the few years after the last period, this should not be a cause of alarm. What you want to watch out for is prolonged excessive bone loss after menopause.

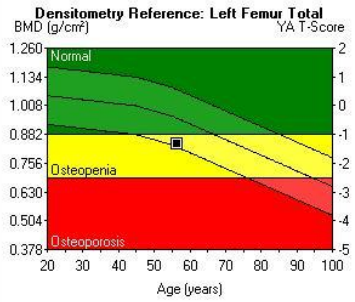


Action Step #4:

Watch our video, Is Your Bone Loss Normal or Excessive?
Then,
Assess your particular situation.

Step #5: Know that your bone density test does not predict your real risk of fracture





So you just got your DEXA results?

There are several problems with current bone density testing that make it limited in its ability to predict fracture.

- First, these tests don't really measure density. They are more of an "area" measurement greatly influenced by the size of the bone. A person with larger bones will have a higher bone density, while thin or small-boned individuals will have their bone density underestimated.

- Second, current bone density tests are not able to assess bone quality or bone strength.

> *"Low bone mass probably accounts for less than half of all osteoporotic fractures."*
>
> *-R.P. Heaney, 2000, Osteo Intl 11(suppl 2):43-46*

- Third, these tests are much more variable and subject to operator error than you would expect. For example, medical researcher Dr. Susan Ott has shown a 5 to 6% change on a bone mineral density test is needed to be sure that any change was not simply due to placement on the machine.

Action Step #5:

Read my blog on the accuracy of DEXA bone density testing.

Find out how to tell if you are losing bone without a bone density test.

Step #6: Develop an Alkaline for Life® diet — your #1 key to building strong bones

Indeed you are what you eat!

An alkaline diet is a nutrient-dense diet high in vegetables, fruits, nuts, seeds, and spices, but also adequate in protein.

Bone serves as an immense storehouse of alkaline mineral compounds that are constantly in use by the body and in need of replacement.

Eating a mineral-rich alkaline diet replaces these essential mineral compounds and helps build up your bone mineral reserves.

Alkalizing foods should comprise 60 to 80% of your daily diet. See Dr. Brown's list of alkalizing foods.

Action Step #6:

Learn more about pH by purchasing the Better Bones pH Test Kit.

Test and record your pH readings daily, trying to get readings in the 6.5 to 7.5 range.

Sample One Day Alkaline Diet Plan

Breakfast:

Veggie scramble: 1-2 eggs scrambled with green onions, tomatoes, chopped bok choy or other leafy greens, and bell peppers.
Cup of ginger tea.

Snack:

1 pear and a handful (1 oz.) of toasted pumpkin seeds.

Lunch:

Lentil soup served with 2 cups of steamed vegetables (broccoli, kale, carrots, onions). Drizzle olive oil over vegetables.
or
4 oz. cold or hot salmon or tuna served over 2-3 cups mixed greens, tomatoes, cucumber, carrots, broccoli, or other fresh vegetables with a lemon-dill vinaigrette.

Snack:

Hard-boiled egg, sliced and sprinkled with sea salt and chopped parsley and red bell pepper strips, celery or carrot sticks. A handful of almonds is also a snack option.

Dinner:

4 oz. serving of fish, chicken, or turkey served with a baked yam or sweet potato and a mixed garden salad.
or
Pasta (made from buckwheat, rice, amaranth, or quinoa) topped with bitter greens plus pine nuts or slivered almonds, garlic, lemon juice and zest, salt, and pepper. Side dish of steamed zucchini with garlic and olive oil. Add a grating of pecorino or Parmesan cheese, if desired.
Seasonal fruits: In summer, nectarines and cherries, or grapes and melon; in winter, roasted pears or baked apples.

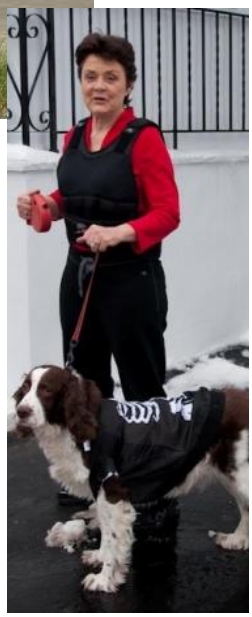
Step #7: Build muscle and you will build bone

Chronically weak muscles are associated with chronically weak bones.

Bone density, in fact, is highly correlated with muscle strength. For example, grip strength has been shown to be directly related to both spine and hip density. Even more, grip strength has been found to be a good predictor of fracture risk.

When you build muscle, you build the bones that are attached to that muscle. For example, it has been known for decades that a right-armed baseball player will have much stronger bones in the right arm than in the left.

The body is one integrated unit and there is a very strong muscle/bone interdependency, known as the "muscle-bone unit." Muscle and bone grow and change together.



Strengthen your muscles and you will strengthen your bones!

Action Step #7:

- **Commit** yourself to 30 minutes of aerobic exercise five days a week (fast walking, biking, cross country skiing, hiking, etc.).
- **Do** 20 to 30 minutes of strength training exercises 2 to 3 times a week.
- **Consider using** Dr. Brown's *Exercising for Bone Health* DVD.
- **Save time** by adding weight to your exercise regimen by using a weighted vest.

Step #8: Cultivate happiness and reduce worry

Worry and stress damage bone.

It has long been known that worry and fear produce stress hormones that are injurious to many aspects of health. Bone, in particular, is broken down by the stress hormone **cortisol.**

Decades of research have shown that quieting the mind through meditation reduces blood pressure, enhances immunity, increases the sense of well-being and emotional stability, and even has a direct impact on DNA expression.

- Remember that fear is the mother of worry and anxiety. Acknowledging and facing our fears often cause them to dissipate.
- Choose the half-full glass. Look for things to feel good about in every situation.

Long ago the Christian bible noted the impact of both negative and positive emotions on bone health.

"A merry heart doeth good like a medicine:
but a broken spirit drieth the bones."

-Proverbs 17:22

Action Step #8:

- **Spend** at least a few minutes outdoors every day enjoying the beauty of nature.
- **Cultivate** a practice of daily meditation, even if only sitting in stillness for a few minutes. Dr. Brown's Meditations for Bone Health CD offers a series of lovely, guided meditations for both the beginner and experienced meditator.
- **Choose** a daily intention. Get inspiration from our list.

Step #9: Take personal responsibility for your bone health

How important is your bone health to you?

No one cares about your bone health as much as you do. Even more important, no one will suffer the consequences as much as you if you neglect your skeletal fitness!

It is never too early or too late to begin building and rebuilding bone strength. Even 90-year-olds bound to wheelchairs have been able to build bone through exercise and nutrient supplementation.

On the other hand, if you do nothing special to maintain musculo-skeletal fitness, as an average woman, you will likely lose nearly 45% of your muscle strength and a nearly equal percentage of your bone mass as you age from 35 to 85. If you look around at some of the very old you can see the effects of doing nothing. Is this how you would like to age?

Knowledge has organizing power. Take charge, become informed. Take action.

Action Step #9:

- **Subscribe** to and read the Better Bones blog on a weekly basis.
- **Read** the information-packed betterbones.com website.
- **View** Dr. Brown's 2-hour educational DVD, Bone Health 101.

Gather a group of friends to exercise together and discuss how nutrition impacts bone health.

Step #10: Know that by taking care of your bones you are taking care of your whole body

The body is one integrated whole.

Each one of our 60 trillion cells and all of our many organs work together seamlessly to create the miracle of human life.

Far from being isolated tissue, bone is a dynamic player in the symphony of human life. Your skeleton plays many essential roles in the body, including

- providing for structure, locomotion, and movement;
- protecting our vital organs;
- incubating red and white blood cells;
- serving as a gigantic reserve of life-supporting alkali mineral compounds;
- providing a storehouse for calcium, which is needed in the blood for minute-to-minute survival;
- providing a safe place to "tuck away" heavy metals and other toxins, keeping them out of circulation; and
- producing hormones that help regulate body fat, blood sugar, and energy production.

All the bone-supporting things you do in my Better Bones, Better Body® Program will also help promote cardiovascular health, immune competence, muscular strength, emotional well being, weight control, and much more. ***You will indeed be creating Better Bones and a Better Body!***

Action Step #10:

- **Read** my blog on improving bone health and heart health.
- **Print** the Better Bones Manifesto and put it on your refrigerator to help you figure out where you can make changes in your life to support bone health.

Action Steps Completed

- ☐ #1 Uncover your real risk of fracture
- ☐ #2 Go beyond the calcium myth
- ☐ #3 Realize that all osteoporosis has a cause
- ☐ #4 Understand that osteopenia is not a disease or even a disorder
- ☐ #5 Know that your bone density test does not predict your real risk of fracture
- ☐ #6 Develop an Alkaline for Life® diet
- ☐ #7 Build muscle and you will build bone
- ☐ #8 Cultivate happiness and reduce worry
- ☐ #9 Take personal responsibility for your bone health
- ☐ #10 Know that by taking care of your bones you are taking care of your whole body

Ingredient Comparison Worksheet

Use this worksheet to see if you are getting all the necessary bone building nutrients in optimal doses. Collect all your supplements and write down the amount of each nutrient you are getting. Then, compare that to our Better Bones Builder with Omega 3s.

Nutrient	Better Bones Builder	Your Supplement	Nutrient	Better Bones Builder	Your Supplement
Vitamin A (beta-carotene)	2,000 IU		**Molybdenum**	90 mcg	
Vitamin C	750 mg		**Potassium**	99 mg	
Vitamin D_3	2,000 IU		**Boron**	4 mg	
Vitamin E	400 IU		**Alpha Lipoic Acid**	28 mg	
Vitamin K_1	150 mcg		**Choline**	80 mg	
Vitamin K_2 (as MK-7)	100 mcg		**Citrus Bioflavonoid Complex**	60 mg	
Thiamine (B_1)	75 mg		**Alpha-Ketoglutaric Acid**	10 mg	
Riboflavin (B_2)	50 mg		**Inositol**	60 mg	
Niacin (B_3)	110 mg		**Cysteine**	200 mg	
Vitamin B_6	75 mg		**Glycine**	100 mg	
Folate	400 mcg		**Silica**	10 mg	
Vitamin B_{12}	300 mcg		**Lutein**	2 mg	
Biotin	200 mcg		**Zeaxanthin**	120 mcg	
Pantothenic Acid	300 mg		**Lycopene**	2 mg	
Calcium	700 mg		**Strontium**	22 mg	
Iodine	175 mcg		**Quercetin**	100 mg	
Magnesium	600 mg		**Coenzyme Q-10**	50 mg	
Zinc	25 mg		**Cystine**	100 mg	
Selenium	200 mcg		**Glutamine**	50 mg	
Copper	1 mg		**Proline**	100 mg	
Manganese	4 mg		**Lysine**	200 mg	
Chromium	300 mcg		**MSM (methylsulfonylmethane)**	100 mg	
Fish Oil	1060 mg				
EPA	300 mg				
DHA	200 mg