

# Bone Density Building

Source <http://www.osteopenia3.com>

These exercises stimulate your Osteoblasts (bone building cells) to build more new bone. Research shows that this is an excellent way to build stronger bones.

But before you begin, please read the Exercise Warning below before reading any further.

If you have Osteopenia or Osteoporosis, in addition to bone density exercises, you want to do exercises to improve balance and coordination.

These exercises reduce the likelihood that you will fall. Preventing falls is important. Most fractures come through falls and you do not want a fracture. These exercises are particularly important if you have had a fracture already since previous fracture is the strongest predictor of new fractures occurring. Do include at least some balance and coordination exercises every day.

For your bone density exercises, you have many options. Research shows that you stimulate new bone growth when you engage in activities that put increased stress on your bones. Most researchers call these activities "weight bearing" exercises or "resistance" exercises. There are other exercise activities, such as swimming and cycling that are good cardio-vascular activities but because they are not weight bearing they do little to build bone density.

Some weight bearing activities to increase your bone density.

NOTE: If you have Osteopenia or Osteoporosis, be sure to check with your health care provider before doing any of the exercises that involve

jumping, hopping or other activities where you 'come down hard'. If your bones are weak, you could create a stress fracture by applying too much sudden force. Please, do check with your health care provider! A phone call may be all you need.

- Aerobics, step aerobics.
- Cycling - IF you can increase the resistance - as some gym machines allow. It is best to use a recumbent bike so your spine is supported.
- Dancing - especially contra dancing, tap dancing, polka and other folk dances that involve stomping, hopping etc.
- Gardening



- Gymnastics
- Jogging
- Jumping rope or doing jumping jacks
- Race walking
- Tennis
- Stair climbing - actually going down stairs is best
- Walking: how to make you walk build new bone
- Weight lifting

There are also a number simple bone density exercises that you can do at

home.

Remember, you need to speak with your health care provider about your choice of bone density exercises.

Depending on your health situation there may be some exercises listed above that you should not do. You do not want stress fractures! Also, check if it is advisable for you to avoid bending forward from the waist in order to avoid 'crush fractures' in your spine. I can not emphasize this enough. You do need the guidance of your physician here.

***Bone density exercises should be part of every solid Osteopenia care plan***

Here are a few points you'll want to consider as you build your plan.

1. Our Osteoblasts [the bone cells that make new bone] respond to increased stress on our bones.

Different exercises tend to stress different parts of our body so it is a good idea to change off from one type of exercise to another every few weeks. Example: ride a resistance recumbent bike for two weeks as your warm up for weight lifting at the

gym. Then stop using the bike and use the stair climbing machine for two weeks. Or if you are working out at home, do some dancing for your warm up for a couple weeks. Then switch to walking up and down the stairs as your warm up.

2. If you are lifting weights, doing strength training, be sure to rest one or two days between sessions. If you do these exercises everyday, your muscles will not have time to recover.

3. Remember it is stress on the bone that stimulates the Osteoblasts.

When lifting weights, the best bone density exercise is to lift a weight heavy enough that you can only do 7-8 repetitions. When you can do 15 repetitions of a weight, go to the next higher weight.

4. Lift slowly. Try to lift each weight to a slow count of eight. Slow lifting is the key to stronger bones.

5. It is normal to feel a bit sore the next day...or even on the third day. But you should not feel real pain either when you lift or after your exercises. If you are feeling pain, reduce weight and lift slowly until your muscles strengthen.

6. Finally, you can practice one very important exercise every day in the privacy of your own home. Get up from your chair without using your hands every time you rise from a chair.

This is such an important skill. People who can not do rise from a chair without using their hands experience falls and fractures more frequently than those who can rise from a chair without using their hands.

Try it. If you can not do get out of the chair without using your hands, start practicing each day. Find a chair with a higher seat or add a phone book to raise your body higher. Keep at it until you can get up from the higher chair easily. Then start practicing from your normal chair.

If you are practicing this, be sure to use a chair with arms so you have something to grab if you need it. But work at it until you are getting up without using your hands or arms all the time. This exercise strengthens your legs and your hips.

If you make no other change in your activities, add this to your bone density exercises.

Get up from your chair without using your hands or arms. The ability to do this means your legs are strong. And it is often noticed that those who can not do this simple movement are often candidates for assisted living. If you want to maintain your independence, get up for your chair without using your hands.

## **EXERCISE WARNING**

For your safety, read both

Osteoporosis exercise warning #1 and #2.

### **Osteoporosis Exercise Warning #1.**

If you have Osteoporosis, do not do any exercises which are high impact without the expressed permission of your health care provider. High impact exercises could cause stress fractures. Also, do not do exercises where you can fall easily. You do not want to break a bone.

Examples of exercises the most Osteoporosis advisors say you should avoid: running, jogging, jumping rope, high impact aerobics, football, soccer, hockey etc.

There are many exercises that you can do: walking, progressive weight lifting [with a few exceptions to some positions], stair climbing are just a few.

### **Osteoporosis Exercise Warning #2.**

If you have Osteoporosis do NOT perform exercises which require you to bend forward at the waist. Spontaneous crush fractures of the spine can occur when coming back up from this position.

Examples of exercises to avoid: Toe touching, bent over row when weightlifting. Also, although yoga is often helpful since it lengthens and strengthens muscles, many poses in yoga require these forward or bent positions. Avoid them unless you have expert guidance from someone who understands the risks of spontaneous crush fractures in persons with Osteoporosis of the spine.

Suggestion: If you have Osteoporosis, it is a very good idea to spend time on balance and co-ordination exercises every day. You want to prevent falls while your bones are porous. Balance and co-ordination are two skills you really need. These exercises are things you can do in the kitchen after breakfast or lunch. They are not difficult, and they can be fun.

Research shows that balance and co-ordination exercises bring improvement very quickly. You can prevent falls!