

## Too Fit to Fracture, Part 2

# Strength training to help aging bones

by *Lora Giangregorio, PhD*

After the age of 40, we lose 0.5% to 1% of the bone mass in our skeleton each year. A diagnosis of osteoporosis means that bones have weakened to the point where they could break from a simple fall.

Osteoporosis affects about 1.4 million Canadians. One in three women and one in five men over the age of 50 will have a fracture due to osteoporosis at some point, often caused by a fall. Fractures can lead to other health problems and loss of function, or independence.

### **Some quick tips on strength training**

Exercises to build muscle strength often involve hard work against resistance. They often involve movements you do every day: push, pull, carry, squat, bend, step, lift. You can do them with weights at the gym, or you can be creative at home. Examples:

- Push-ups at the counter (instead of on the floor, just push against the counter).
- Get in and out of your chair without using your arms 10 times a day. Do 10 squats or lunges while watching TV. If that is too easy, squat while holding a heavy object, or do one legged squats.
- If you like yoga, practice going from downward dog to cobra, and repeat. This is a good way to work your upper back muscles.
- Check out our [video series for more ideas](#) or [consult an exercise physiologist](#).

What's the right intensity? When you start out, aim for eight to twelve repetitions with good form. Then, make the exercises harder as you get stronger. That's key! To build strength you have to increase the challenge over time.

Do exercises for your abdominal (stomach) and back extensor muscles to promote good alignment and

posture, and reduce back pain. (The back extensors are the muscles that run along the length of your spine and help you stand straight.)

Here are some exercises that help build these muscles:

### **Plank**



### **Side Plank**



### **Bird Dog**



If you find exercises like these too hard or too easy, an exercise physiologist or **Bone Fit-trained exercise professional** can find a version that is right for you.

### **Getting the blood moving**

Research suggests that doing “moderate or vigorous” physical activity every day has substantial health benefits. Moderate physical activity means you should be working hard enough that you are breathing harder, and it feels a little like work. You could probably carry on a conversation, but would have to stop to catch your breath to sing a song. Vigorous physical activity is when you working at an intensity where you are

breathing hard, and you would have to stop what you are doing to say more than a few words. Be sure to choose an intensity level that is safe and appropriate for you. If you are not sure, check with your health care provider.

Get your heart rate up with walking, dancing, or even challenging yard work, for at least 10 minutes at a time. Accumulate at least 150 minutes a week, or 20 to 30 minutes a day.

*About the author*

**Dr. Lora Giangregorio** is an Associate Professor of Kinesiology at the University of Waterloo. She is also the Schlegel Research Chair in Mobility and Aging. Her research program focuses on strategies to reduce the risk of fracture, and increase physical activity and mobility in older adults. Lora translates her research into practice by working with government and non-profit organizations and linking with community-based programs. She collaborated with Osteoporosis Canada to develop the *Too Fit to Fracture* exercise recommendations.