



Osteoporosis Canada

Ostéoporose Canada

# COPING

March 22, 2017

**Remember: You can live well with osteoporosis!**

# Exercise and Better Bone Health

## Pt.1 Slips, Falls and Fractures

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### Fracture Fact

Approximately one-third of all community-dwelling older adults will report a fall in the past year.

*It is possible to be too fit to fracture.* A strong belief in that statement has been a guiding force for Dr. Lora Giangregorio (Associate Professor in the Department of Kinesiology, University of Waterloo, and a member of Osteoporosis Canada's Scientific Advisory Council) and her work to support and motivate patients to take care of their bone health. Indeed, her initiatives, like the video series *Too Fit to Fracture*, have become important resources for all who are determined to prevent the next fracture because of their osteoporosis.

Dr. Giangregorio's many accomplishments have been acknowledged by two recent awards. Last year she was the recipient of Osteoporosis Canada's Lindy Fraser Award for her outstanding contribution to the field of osteoporosis research and education. In 2015, Dr. Lora Giangregorio was recognized with the prestigious Bloomberg Manulife Prize for the Promotion of Active Health. Dr. Giangregorio is the first woman, and only the second



Canadian, to receive the prize in its five-year history. She was recognized for her clinical research aimed at improving the management of osteoporosis through exercise as well as for her efforts in promoting physical activity more broadly. In conjunction with this award, Dr. Giangregorio was asked a series of questions about bone health, falls, fractures and exercise. Part 1 of her answers is here; Part 2 follows in the April 5 issue of *Coping*.

### Part 1: Slips, Falls and Fractures

1. How common are slips and falls over the winter and who in particular is vulnerable? Is it only the elderly?

Most of the research examining falls and fall-related injuries has focused on adults

over the age of 65. Approximately one-third of all community-dwelling older adults will report a fall in the past year. In 2013, approximately 59 out of every 1,000 seniors experienced a fall-related injury, and the rate of falls and fall-related injuries increases with advancing age.

A recent study from the Canadian Community Health Survey reported that about 16% of fall-related injuries in older adults occur because of falls on snow and ice. But many falls in older adults are not related to weather – they occur because of a trip or stumble, a fall on steps, or because of health problems. That said, 16% is not a trivial number, and I imagine that even younger adults get injured more frequently because of falls in winter, so we need to be extra careful and wear appropriate footwear.

## *2. Can active health prevent these slips and falls?*

There is a lot of research that suggests that exercise can prevent falls in older adults, amounting to a reduction of falls by 15% or more, depending on the study you read. A recent report that combined all of the studies on exercise and its effect on fall-related injuries in older adults suggests that exercise programs can reduce fall-related injuries by 37%.

Some research suggests that certain exercises are more effective than others. For example, to prevent falls, we should do activities that challenge balance. If you think about it, your ability to prevent a fall depends in part on your ability to react to a loss of balance and steady yourself. So the best way to train your body to steady yourself is to practise with activities where it is hard to maintain balance. They don't have to be complicated exercises – it could mean incorporating unusual walking patterns into your daily walk, practising balance challenges while waiting for the microwave, or taking a Zumba class (a fitness program featuring movements and fancy footwork based on Latin American dance). The key is that it is enough of a challenge that you have to work to stay on your feet, but not a situation where you put yourself at high risk of falling.

You can choose strength-training exercises that also challenge balance, like lunges or step ups. For some people, practising standing with feet together while gently touching a counter is enough of a challenge, where others need to do something harder, like walking lunges. “Clock yourself” is a new app that you can download - it provides progressive balance challenges you can do for three minutes a day.

## *3. What was the inspiration for the Too Fit to Fracture video series and how can it be helpful for those at risk?*

The video series came about after our research to develop physical activity recommendations for people with osteoporosis – we wanted a way to help people put the research into action. The videos showcase the stories of four very different people who are at risk of breaking a bone, and how they find ways to incorporate exercises to improve strength, balance, posture and aerobic fitness into their lives.

The videos also demonstrate that there is not just one right exercise program for people with osteoporosis – the program that is appropriate and safe for one person may be too easy, too hard or unsafe for another. Osteoporosis is not a woman's disease – men get it too; one of our videos is about a man with osteoporosis who wants to keep golfing, but safely.

The videos are meant to inspire people to find the right exercises to fit their health and lifestyle, and to help them understand how to do a few exercises to get them started. But it is important to understand that even if you start with exercises from the videos, your exercise program needs to evolve – as you get fitter, you need to increase

the challenge over time. If you have health setbacks, you might need to adapt it accordingly. Also, many people need to be assessed by a physical therapist, kinesiologist or clinical exercise physiologist to tailor the program to their needs and abilities, and make sure they are doing the exercises with proper form. Consulting with an exercise professional is a good investment.

The video series and other exercise materials developed by Dr. Giangregorio and her team can be accessed at <http://www.osteoporosis.ca/osteoporosis-and-you/too-fit-to-fracture/>.

## We Welcome Your Feedback

- Have a question?
- Is there an osteoporosis-related topic that you would like to see featured in the newsletter?
- Looking for a great volunteer opportunity?

Please contact us by calling Osteoporosis Canada's toll-free number **1-800-463-6842** or emailing [copn@osteoporosis.ca](mailto:copn@osteoporosis.ca).

## BONE MATTERS – UPCOMING PRESENTATION

**UNBREAKABLE**  
A Woman's Triumph over Osteoporosis

Watch it live!  
Have your questions answered.

Wed. Mar 29, 2017  
12:30 - 1:30 EST

Register for the forum at:  
<http://www.osteoporosis.ca/osteoporosis-and-you/copn/virtual-forum/#unbreakable>.

**UNBREAKABLE**  
A WOMAN'S TRIUMPH OVER OSTEOPOROSIS

**CHRISTINE THOMAS**

For more information on Osteoporosis Canada and the Canadian Osteoporosis Patient Network (COPN) call 1-800-463-6842 or visit [osteoporosis.ca/copn](http://osteoporosis.ca/copn)

**BONE MATTERS**  
Take charge of your bone health

Presenter:  
**Christine Thomas**

Christine was only 42 when, bending to lift her newborn daughter, she fractured her spine. She had no idea of the painful and transformative road she would have to travel to build stronger bones and reclaim her life from the clutches of osteoporosis. In this webinar, she shares her hard-won truths of how to live well with osteoporosis, covering such essentials as:

- The physical impact
  - pain management
- The emotional impact
  - depression and how to cope
- Osteoporosis and exercise
- Nutrition
- Osteoporosis and intimacy

Osteoporosis Canada  
Osteoporosis Canada

Join us for our next Bone Matters live virtual forum with presenter Christine Thomas. Christine will share her story of being diagnosed shortly after becoming a mother, and her journey through managing the multiple aspects of living with osteoporosis, such as the physical and emotional impacts, nutrition, exercise and more.

### Presentation date:

Wednesday, March 29, 2017 at 12:30-1:30PM EDT

Sign up in advance [here](#) and watch the presentation live from your own computer.

[Click here](#) to find out more about the **Bone Matters** virtual education forum series.

## FUNNY BONE:

A bank is a place where they lend you an umbrella in fair weather and ask for it back when it begins to rain. – Robert Frost

# A Recipe from our Sponsor

## Sesame Ginger Veggie Quinoa with Salmon

Course: *Main Dishes*

Preparation Time: *15-20 mins*

Cooking Time: *30 mins*

Yields: *4 servings*

*1/2 milk product serving(s) per person*

**Calcium:** 20% DV/ 225 mg

In this recipe, the accent flavours of sesame, ginger and soy sauce soak right into the quinoa and vegetables. The salmon is cooking on the top of this mixture to give you a complete meal all in one pan, ready in just half an hour. This is sure to become a new weeknight go-to meal.



For more information about this recipe:

<https://www.dairygoodness.ca/getenough/recipes/sesame-ginger-veggie-quinoa-with-salmon>

## Ingredients

2 tsp (10 mL) sesame seeds  
2 tsp (10 mL) **butter**  
1 onion, chopped  
2 stalks celery, diagonally sliced  
2 carrots, diagonally sliced  
2 cloves garlic, minced  
1 tbsp (15 mL) minced fresh gingerroot  
Pinch hot pepper flakes  
1 cup (250 mL) quinoa, rinsed and drained  
1/2 cup (125 mL) low-sodium vegetable broth or water  
2 cups (500 mL) **milk**  
2 tbsp (30 mL) reduced-sodium soy sauce, divided  
2 tsp (10 mL) sesame oil, divided  
4 pieces (each 4 oz/125 g) thin skinless salmon fillet  
1 cup (250 mL) frozen shelled edamame, thawed

## Nutrition Tip

Add milk to your soups, smoothies, flans, pancakes or pasta sauces. Whether hot and cold, a meal with milk is always delicious.

## Preparation

In a large, deep skillet, toast sesame seeds over medium heat, stirring constantly, for about 3 minutes or until golden brown. Immediately transfer to a bowl; set aside.

Return skillet to medium heat; add butter and swirl to coat. Sauté onion, celery and carrots for 5 minutes or until softened. Add garlic, ginger and hot pepper flakes; sauté for 1 minute or until fragrant. Stir in quinoa.

Stir in broth, then stir in milk. Stir in 1 tbsp (15 mL) of the soy sauce and 1 tsp (5 mL) of the sesame oil; bring to a simmer over medium-high heat, stirring occasionally. Reduce heat to low, cover and simmer, stirring once, for 7 minutes until quinoa is slightly tender.

Meanwhile, in a small bowl, combine remaining soy sauce and sesame oil. Pat salmon fillets dry and brush both sides with soy sauce mixture.

Stir edamame and any remaining soy sauce mixture into quinoa. Nestle salmon fillets in quinoa, spacing evenly around the pan. Cover and simmer for about 10 minutes or until white juices just start to show on salmon and salmon is just opaque. Remove from heat and let stand, covered, for 5 minutes. Spoon portions onto plates and sprinkle with toasted sesame seeds.



## Tips

Thin salmon fillets, about 1/2 to 3/4-inch (1 to 2 cm) thick, work best for this recipe. If using frozen fillets, let them thaw, then let stand on a paper towel-lined plate to drain well while you prepare the rest of the ingredients for this recipe to prevent excess liquid from cooking into the quinoa. Pat dry as directed.

When buying reduced-sodium soy sauce, it's worth it for flavour and quality to seek out naturally brewed soy sauce. Check the label and choose one that contains less than 600 mg sodium per tablespoon (15 mL).

**This issue of COPING is sponsored by Dairy Farmers of Canada**

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