

Remember: You can live well with osteoporosis!

Overcoming the Challenges of Living with Osteoporosis

By Ina Ilse, founding member of COPN

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Fracture

Fact:

Bone is living tissue, constantly undergoing change through a process called bone remodelling.

Key messages:

- Osteoporosis is a silent thief. You may have it and not know.
- Working with your doctor is the first step to living well with osteoporosis.
- Medication can make a big difference.

If you are living with osteoporosis, you know that it is something you cannot walk away from; it stays uppermost in your mind. Why? Because of the uncertainty as to what might happen! You think, what are my bones really like? Are they strong enough for me to do what I like to do, even walking?

Does it have to be this way?

At COPN we say that we live well with osteoporosis, but do we really and if so, how are we able to live well with such a devastating disease? It is not always easy, but as with most things in life, you have to have a mindset that will allow you to do just that.



If you have been recently diagnosed with osteoporosis, I think you will either **laugh** or **cry**. **Laugh** because it sounds ridiculous. You have no pain, you feel fine and for the most part, life is good. Well, osteoporosis is a silent disease and is called a **“silent thief”** “because you **can** have osteoporosis without knowing it. Day by day, your bones can become thinner without your being aware of it, because bone is living tissue, constantly undergoing change. However, we seldom think of our bones this way; we see *them as the inert frame of our body*.

Cry. Some of us, on the other hand, might feel like crying because we know a little

about osteoporosis but not enough to realize that it is not the end of the world. With lifestyle changes you can still do most of the things that you are used to doing. No matter who we are, the most compelling thing is that none of us knows if we will break a bone and if so, how bad the break will be. That is a scary thought and good reason to want to cry. When you are diagnosed, your doctor may recommend lifestyle changes with or without medication. The lifestyle changes should include good nutrition - a calcium-rich diet with recommended protein - supplementation with vitamin D and physical activity. Work closely with your doctor to determine the best approach for you; this is very important. *This is the first step to living well with osteoporosis!*

If your diagnosis was based on your having broken a bone and you are at high risk of another fracture, your doctor will recommend treatment with medication. Here you must be very strict with yourself and follow the directions on how to take your medication completely. The treatment may have side effects. Don't just stop taking it. Talk to your doctor because there may be another treatment that will work better for you.

Before I was diagnosed with osteoporosis, I had many rib fractures and they were very painful. All it took for me to break a rib was to bend over, open a heavy door or get a hug from a loving person. It got so bad that I put my hands out to protect myself when I saw a hug coming. I had five big loving brothers whom I did not see much of because we lived far apart and hugs were a big part of our greetings.

I had no idea why this was happening. Eventually I got tired of it and went to my doctor to ask him what was going on. He sent me to an endocrinologist who ordered a Bone Mineral Density test, which showed that I had severe osteoporosis. Treatment had to be started but because of severe acid reflux, I could not tolerate any of the oral medications. I was able to participate in a clinical trial for a drug that bypassed the gut. Unfortunately, I had severe reactions and even my family doctor recommended that I try something different. But since I had already suffered many fractures, I decided that I should persevere. It took some time for my body to adjust but I am very happy now that I did not stop taking my medication. After three years my osteoporosis was merely low bone density.

I also paid close attention to my diet. I am lactose intolerant, so I did not eat dairy, which left me with low calcium intake. However, I discovered that I can eat yogurt and it became a huge part of my diet. I managed to make food that was rich in calcium and I increased my intake of green leafy vegetables. I had always eaten legumes.

I did very well for some years but then I became complacent. I went out to do snow shovelling in regular shoes and did not even tie the laces. I had a bad fall on black ice onto some steps and snapped the radius in my arm. To repair the fracture I needed a plate with seven screws and I had a long period of excruciating pain. All totally preventable! I then realized that if I am not on my guard at all times, not just eating well and doing all the other things to keep my bones strong, a misjudgement can cause me lots of pain. I knew my bones had improved but I was still at risk of a break.

Again I did well for years, but a moment of inattentiveness gave me another fracture. For this one I needed three sets of surgeries before it was better and again I was given a plate to keep the bones together so it would heal well. The pain that I endured was worse than anything I had experienced before. That was eight years ago and now I think twice before I do anything that could remotely cause me to break another bone.

I still do snow shovelling and gardening and many other physical activities but with much more caution. When my legs allow me, I can still enjoy a 4-5 kilometre walk. Unfortunately, time is not on my side; I am getting older

and things that were previously easy to do, I no longer find easy.

I live fairly well with my osteoporosis because I have a good idea what my responsibilities are. When you are diagnosed with osteoporosis, your doctor will tell you how severe it is and what you can expect. If you are at high risk of fracture and are prescribed a medication, it is for your own good. Again, make sure you follow the instructions for taking your medication very carefully, and don't skip your medication.

Find out what type of lifestyle changes you have to make. Do you have a diet that is nutritious and supplies you with all the vitamins, minerals, especially calcium, and protein that you need? Are you a smoker; do you drink more alcohol than is healthy? Do you get enough physical activity? Are you doing all you can to prevent falls?

So even though at COPN we say that we live well with osteoporosis, it is because we are ever conscious that we have to be on guard and take care of ourselves. If you have questions about osteoporosis, call Osteoporosis Canada at 1-800-463-6842 to get the answers or visit their website at osteoporosis.ca.

If you are not already a member of the Canadian Osteoporosis Patient Network (COPN), [sign up here](#). It is free and very informative.

I hope you all will have a fracture-free life. That is what we are working towards.



WEBINAR
Frequently Asked Questions
about Osteoporosis

Date & Time
Wednesday, November 28, 2018,
1:00 – 2:00 pm ET

Featured Speaker
Sandra Kim, MD, FRCPC



- Chair, Scientific Advisory Council, Osteoporosis Canada
- Assistant Professor, Endocrinology and Metabolism, U of T
- Director, Centre for Osteoporosis and Bone Health, WCH
- Member, OC Board of Directors

Dr. Kim will answer questions such as

- I'm afraid of the side effects of medications. Can I treat my osteoporosis naturally?
- What is a fracture risk assessment?
- How much calcium and vitamin D do I need?

To Register <https://osteoporosis.ca/bonematters>



osteoporosis.ca/copn

BONE MATTERS

Take charge of your bone health

Upcoming Presentation

Frequently Asked Questions about Osteoporosis

Living with osteoporosis can bring up many questions as to how to best manage your condition. Whether you're newly diagnosed, or have already done your research, there's always something more you can learn to live well with osteoporosis.

Join us for a presentation on frequently asked questions about osteoporosis with Dr. Sandra Kim where she will answer questions such as:

- I'm afraid of the side effects of medications. Can I treat my osteoporosis naturally?
- What is a fracture risk assessment?
- How much calcium and vitamin D do I need?

This presentation will air live on **Wednesday, November 28** from **1:00-2:00PM ET**.

For more information and to register, [click here](#).

Registration is required to participate in the live event. Registration closes at 9AM Wednesday November 28.

Vitamin D and Effects on Fractures, Falls and Bone Mineral Density

Osteoporosis Canada's overall position statement in response to this study:

This study did not specifically address the vitamin D requirements of individuals with osteoporosis, those with risk factors for osteoporotic fractures, or those with risk factors for vitamin D deficiency. Vitamin D is needed for optimal calcium absorption from the gut, and plays an important role in calcium balance and bone mineralization. Osteoporosis Canada recommends that individuals with osteoporosis or with risk factors for fractures receive adequate vitamin D, as recommended at 800-2,000 IU per day.

A recent article on the effect of vitamin D supplementation on fractures, falls and bone mineral density was published in the journal Lancet Diabetes Endocrinology by Bolland and colleagues (October 4, 2018). This research reviewed the available literature as part of a systematic review and meta-analysis. A systematic review is a research method used to thoroughly locate and synthesize all the information (evidence) related to a specific topic. A meta-analysis uses statistical tools to combine data from the studies included in the review to provide an overall finding. During the systematic review process, it is important that the researchers combine studies that are clinically and statistically similar. This research summarized and combined the results of 81 randomized controlled trials, in which more than 50,000 people were enrolled.

There are some noteworthy characteristics of the included 81 studies. For example, the majority of studies were done in community-dwelling women age 65 years or older, and the only "intervention" was vitamin D in doses of more than 800 IU/day. There were also studies of higher dose vs. lower dose vitamin D, as well as studies that included calcium and vitamin D given together. The studies in the review were based on participants taking vitamin D for one year, or less. The main focus of the systematic review was to look at the effect of vitamin D on fractures and falls. However, there was also a summary of the effect of vitamin D on the change in bone mineral density [from the start of the study (baseline) to the final assessment] (1).

Based on the results of the meta-analysis, the authors reported that vitamin D supplementation did not have an effect on the risk of fractures or falls, and that there were no meaningful effects on participants' bone mineral density. The authors also concluded that there were no differences between the effects of taking higher and lower doses of vitamin D (1) for these health outcomes.

There are several factors that should be considered when reviewing these results. First, in more than half of the studies, participants had a baseline vitamin D level (25OHD - the blood test used to measure Vitamin D levels in the blood) of less than 50 nmol/L (a cutoff considered by many (2) to indicate a low level of vitamin D). Almost all of the participants had a baseline 25OHD that was less than 75 nmol/L, which is considered an adequate level. Only four trials (6%) studied people with vitamin D deficiency (25OHD <25 nmol/L), in whom vitamin D supplementation may produce different results. In addition, there can be individual differences in how the body's level of vitamin D responds to the administration of a fixed dose of Vitamin D. Most studies used 1,000 IU per day or less, and so the 25OHD levels after treatment (used as the intervention) may not have been high enough to make a difference in the health outcomes studied (fractures and falls).

Second, the finding that vitamin D alone (without calcium) may not prevent fractures, falls or improve bone mineral density is consistent with other published reviews. However, a review of studies of calcium and vitamin D for people living in long-term care showed benefit (3) but the current meta-analysis by Bolland and colleagues included only 20 trials (25%) that compared vitamin D and calcium to calcium alone. They also did not include studies that compared vitamin D and calcium with no treatment.

Third, although the major strength of the current review lies in the large number of studies included in the analysis, it is important to recognize there are potential limitations. For example, there were differences in the participants enrolled between studies, the study designs, and the results of the studies in the meta-analysis.

Importantly, this review did not specifically address the vitamin D requirements of people with osteoporosis, those with risk factors for low trauma fractures, or those with risk factors for vitamin D deficiency. Although this systematic review suggests that routine vitamin D supplementation, in particular, high dose vitamin D, may not be necessary for healthy individuals in the general population, these findings cannot be applied to people with osteoporosis, or to those with risk factors for fractures or vitamin D deficiency.

Fourth, it must be highlighted that falls have many causes. Even specific fall prevention exercise programs are not always effective, and the relative benefit of any intervention on falls is individual.

It is important to remember that vitamin D is needed to optimize calcium absorption from the gut, and plays an important role in calcium balance and bone mineralization. Inadequate vitamin D can result in poor bone mineralization, as well as bone loss due to a rise in parathyroid hormone levels.

Osteoporosis Canada recommends that individuals with osteoporosis or with risk factors for fractures receive adequate vitamin D, as recommended at 800-2,000 IU per day (4); however, vitamin D dosing may require adjustment in order to achieve the adequate 25OHD level needed for optimal calcium homeostasis. Further studies are needed to clarify the optimal 25OHD level for those with osteoporosis or with risk factors for fracture. High dose vitamin D supplementation should be avoided due to potential harms (5). There are large randomized trials currently ongoing to help answer questions about effects of vitamin D supplementation on other aspects of health (6).

Appropriate osteoporosis medication may be required for those at high fracture risk. It is important to note that clinical trials showing the effectiveness of osteoporosis medications all included vitamin D and calcium as part of the treatment regimen.

References:

1. Bolland et al. *Lancet Diabetes Endocrinol* Oct 2018
2. Evaluation, Treatment, and Prevention of Vitamin D Deficiency: an Endocrine Society Clinical Practice Guideline. Michael F. Holick et al. *The Journal of Clinical Endocrinology & Metabolism*, 2011 96 (7): 1911-1930.
3. Papaioannou et al. *CMAJ* 2015 187: 1-11.4.
4. Vitamin D in adult health and disease: a review and guideline statement from Osteoporosis Canada by David A.

Hanley MD et al CMAJ 2010

5. Smith et al. 2017 J Steroid Biochem Mol Biol173:317-22

6. [Pradhan AD](#), Manson JE Update on the Vitamin D and Omega-3 trial (VITAL). Study [J Steroid Biochem Mol Biol](#). 2016 Jan;155(Pt B):252-6.

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?

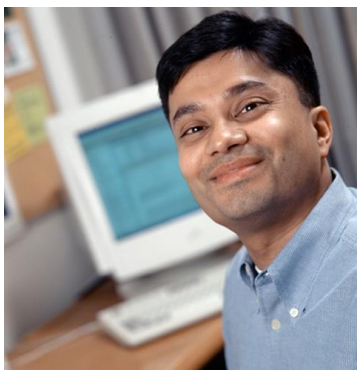
Please contact us by calling Osteoporosis Canada's toll-free number **1-800-463-6842** or emailing copn@osteoporosis.ca.

Lindy Fraser Award 2018

Osteoporosis Canada's Scientific Advisory Consultants and Osteoporosis Canada, would like announce this year's Lindy Fraser Award winner as chosen by the members of the SAC.

Osteoporosis Canada established this award in 1993 to recognize individuals who have made an outstanding contribution to the field of osteoporosis research and education in Canada. The award is named in honour of Lindy Fraser, who in 1981 at the age of 87, started the first self help group for people with osteoporosis. She was an inspiration to others as she shared her struggle to get out of bed, into a wheelchair, then to walk again with a cane. In 1982, she answered a call from a small group in Toronto to take part in the first national symposium on osteoporosis. That appearance was the spark that gave rise to Osteoporosis Canada.

This year's award winner has advanced our vision of a Canada without osteoporotic fractures. Osteoporosis Canada recognizes posthumously **Dr. Sumit (Me2) Majumdar** as the 2018 Lindy Fraser Award Winner.



Sumit (Me2), who passed away in January 2018, was a Professor at the University of Alberta where he worked as a clinician, teacher and researcher.

Me2 was an active and highly respected member of the Osteoporosis Canada Scientific Advisory Board, serving on the Executive and Guidelines committees. His contributions to OC and to the scientific community, through his engagement and excellence in clinical research and knowledge translation in the improving post fracture care will have a substantial and lasting impact. Me2 was recently elected a Fellow of the Canadian Academy of

Health Science, a tribute to his many scientific contributions.

At the ASBMR SAC Breakfast in Montreal on September 29, 2018, Dr Suzanne Morin presented the award to Dr. Bill Leslie who accepted the award on behalf of Me2's family. Me2 will be remembered as a colleague and a friend who made a difference in the care of patients with osteoporosis.



Dr. Morin, left, and Dr. Leslie

FUNNY BONE:

To write songs, I usually need a reason. Like not having any money.
– Willie Nelson

SLOW COOKER LASAGNA

Preparation Time: 20 mins

Cook Time: 3-4 hrs on high, 6-8 on low

Serves: 8

Calcium: 220 mg



Lasagna couldn't get easier than putting it in the slow cooker. Perfect when you come home from work to enjoy a hot meal with your family. Try adding other greens or cooked vegetables for a twist of flavours.

Ingredients

8 oz (227 g) extra lean ground beef or turkey
1 onion, finely chopped
3 cloves garlic, minced
2 tsp (10 mL) dried oregano
1/4 tsp (1 mL) hot pepper flakes
1 jar (700 mL) tomato passata (strained tomatoes)
1 cup (250 mL) water
10 whole wheat lasagna noodles
1 tub (500 g) 1% cottage cheese or ricotta
1 pkg (5 oz/142 g) baby spinach, chopped
1/4 cup (60 mL) chopped fresh basil or parsley
2 tbsp (30 mL) grated Parmesan cheese
1/2 cup (125 mL) shredded part skim mozzarella

For more information, [click here](#) to view the recipe online.

Preparation

Lightly spray inside of slow cooker with cooking spray.

In a large nonstick skillet, brown beef breaking up with spoon. Scrape out beef into a colander and let drain. Wipe out skillet and return to medium heat; cook beef, onion, garlic, oregano and hot pepper flakes for 5 minutes or until softened. Add passata and water and remove from heat.

In a bowl, stir together cottage cheese, spinach, basil and Parmesan cheese.

Spread some of the meat sauce over bottom of slow cooker. Lay lasagna noodles in a single layer, breaking as necessary to fit. Top with 1/4 of the sauce and one third of the cheese mixture. Repeat layers twice ending with meat sauce on top. Cover and cook on Low for 6 to 8 hours or on High for 3 to 4 hours. About 15 minutes before serving lasagna, sprinkle mozzarella over top, cover and let cook on Low until melted.