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Fracture Fact:

Over 80% of fracture patients are never offered assessment and/or treatment for osteoporosis post fracture. Hundreds of thousands of Canadians needlessly fracture each year because their osteoporosis goes undiagnosed and untreated.

Remember: You can live well with osteoporosis!

Colm Kelly: My Continuing Adventures with Ironman Triathlon and Osteoporosis

In the June 8, 2012 edition of COPING I talked of being an athlete with osteoporosis and related my experience of competing in the 2011 Hawaii Ironman World Championship at age 65. I enjoyed that experience so much that I decided to try and qualify again for Hawaii in 2012. In May I went back to St. Croix, U.S. Virgin Islands, and competed in the qualifying Half-Ironman. After winning my age group and Kona spot, I buckled down to some serious training for the October race...and that's when my problems began!

In early July, I fell off the bike and broke my collar bone. I needed six weeks of rehabilitation before I could tentatively resume training. Then exactly five weeks before the Hawaii race, disaster struck again! I was participating in a group charity ride when suddenly there was a crash and I fell hard. I came to in the ambulance on my way to Emergency having suffered a concussion, cuts on my face, a broken nose, a broken pubic bone and a re-broken collar bone.

Well, I considered my race to be over, but all the travel and accommodation arrangements had already been made and paid for, so my wife Joanne and I decided to go anyway, just for a vacation. However, when I arrived, I found it hard to watch all the other athletes preparing for the race, knowing I would not be a part of it. At registration, a couple of days before the race, I could not bring myself to sign the official form withdrawing from the race,

so I decided to at least start and see how far I could get. I told myself I would listen to my body, not push through pain, and I could pull out anytime.

So I borrowed a bike and set up for the race! I was there in Kailua Bay at 7am, October 13, when the cannon went off for the swim start.



To my surprise and delight I got through the 3.8K swim with 15 minutes to spare before the cutoff, and started out on the 180K bike ride. It was wonderful to be out there participating, and I didn't care how far I would get. It was a typical Hawaii race day, hot and windy. I felt fine, and my position on the bike was not stressing my healing body parts.

However, the last 40 kilometers were not so wonderful! I had not been on a bike for five weeks and I developed major leg cramps, which almost brought me to a halt on several occasions. I crawled into transition at

5:20pm, 10 minutes before the cutoff, barely able to dismount. With a marathon still ahead of me I had nothing left, and I had decided to call it a day.



However, I had not reckoned on George! George was a race official and introduced himself as the run coordinator. When he heard of my plans to withdraw from the race, he looked me straight in the eye and said, *“You can do this!! We’ll start you off walking, get you rehydrated, and then we’ll see how it goes. I’ll let you know in an hour if you are going to make it or not!”*

Well, with that exhortation what could I do?! I started out, the last person on the 42K run course, but he was right. I recovered while walking and then began to run. George was zipping around on a scooter checking up on my progress and the progress of other stragglers like me, helping us to stay on pace. I finished in 16 hours and 50 minutes, just 10 minutes before the midnight cutoff. This was a race I never expected to start, let alone finish. Thank you, George!

Now all of this may seem a little obsessive to some, but this sport is my passion, my fitness, a significant part of my social life, and then there is the thrill of participating and competing in the big races.



I am not going to give it up until I absolutely have to!

I am living proof that one can live well with osteoporosis. I am not suggesting that everyone take up triathlon, but if my story can offer some comfort and encouragement to others with the disease, that’s great! One can manage osteoporosis with all the supports available. I follow the OC guidelines for dietary calcium and vitamin D supplementation, and I am taking my medication as recommended by my doctor.

I am honored to share my story with you and hope in turn that you will share it with others who may believe that osteoporosis is just a woman’s disease - something that men do not need to concern themselves with. Remember that one in five men will suffer a broken bone in their lifetime from osteoporosis, and I, a triathlon athlete, am one of those.

FUNNY BONE:

Always borrow money from a pessimist. He won’t expect it back.

COMPLIANT FLOORING: A Potential Way of Reducing Injuries due to Falls

Chantelle C. Lachance, Fabio Feldman, Stephen N. Robinovitch and Dawn C. Mackey

As was described in our last newsletter, falls and the injuries they cause are a major health concern for older Canadians. Approximately 10-15% of falls cause injury such as fractures (broken bones), which may lead to pain, disability, loss of independence, reduced quality of life and even death.

Thus, the development of improved strategies to prevent falls and fall-related injuries among seniors is a public health priority in Canada. Scientists have been researching ways by which falls can be prevented both in and outside the home. Our last newsletter described many tips for falls prevention. In addition to methods designed to prevent falls, researchers are also investigating strategies that may reduce fall-related injuries. A novel strategy that is currently under development may be of interest to some of you. This method, which is still being researched, is called compliant flooring. Although it does not prevent falls, it may reduce the severity of injury should a fall occur.

Compliant flooring, also commonly known as safety flooring or low stiffness flooring, is similar to the rubber tile found on some children's playgrounds. The logic is simple: decreasing the stiffness of the floor will decrease impact forces during falls and thus reduce the chance of injuries, such as fractures. Laboratory-based studies conducted over the past 10 years have determined that compliant floors can reduce the force applied to the hip by about 35% during simulated sideways falls, and the force applied to the head by about 50% during simulated backwards falls, without impairing an individual's balance. Therefore, installing compliant flooring in high-risk environments, such as nursing homes and hospitals, may reduce the incidence and severity of fall-related injuries.

Researchers at Simon Fraser University, B.C., in partnership with the Fraser Health Authority, are embarking on a research study of compliant flooring called the Flooring for Injury Prevention (FLIP) Study. The FLIP Study will take place at a nursing home in British Columbia, and will compare the effects of different types of flooring. The study will monitor the number and cost of falls and fall-related

injuries over time to determine if one type of flooring is better than another. The results of the FLIP Study will be used to guide programs and policies for fall and injury prevention in older adults, and to improve the design and renovation of various types of infrastructure, including non-profit housing, assisted living complexes, long-term care facilities, hospitals and seniors recreation facilities.

The FLIP Study is part of a team research grant called Technology for Injury Prevention in Seniors, which is funded by the Canadian Institutes of Health Research (CIHR). If you are interested in reading more about the FLIP Study, please visit www.sfu.ca/tips.

To further illustrate this concept of compliant flooring, here is one example of a commercially available product: SmartCells[®] made by SATech (Chehalis, Washington, USA). SmartCells[®] flooring is made of a continuous rubber surface layer that is supported by cylindrical rubber columns (Figure 1).



Figure 1. SmartCells[®] compliant flooring composed of a continuous rubber surface layer that is supported by cylindrical rubber columns.

The flooring is firm under normal walking conditions, but the rubber columns collapse upon impact, reducing the impact or force of potentially injurious falls. SmartCells[®] are typically installed as a sub-floor and are then covered with vinyl or carpet as shown in Figure 2.



Figure 2. An example of the SmartCells[®] compliant flooring installation in a resident's room at a nursing home in British Columbia (left: Smart Cells[®] sub-flooring; right: SmartCells[®] sub-flooring with vinyl overlay – the finished product).

VIRTUAL EDUCATION FORUM: Wednesday, June 26, 2013

**Presenter: Dr. Norma MacIntyre, BSc
(Physical Therapy), MSc, PhD,
McMaster University**

Tips for Avoiding Osteoporotic Fracture while Living Your Everyday Life

Objectives: By the end of this presentation, participants will be able to:

- Describe how daily activities may increase their functional risk for osteoporotic fracture
- Identify strategies to modify typical movement patterns or daily tasks so these are done safely

For more information, visit our website at
<http://www.osteoporosis.ca/osteoporosis-and-you/copn/virtual-forum/>



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Wednesday, June 26, 2013

VIRTUAL EDUCATION FORUM

**Tips for Avoiding Osteoporotic Fracture
while Living Your Everyday Life**

**Presenter: Dr. Norma MacIntyre, BSc (Physical Therapy),
MSc, PhD, McMaster University**

Presentation Times by Time Zone

PT: 10:30 a.m. to 12:00 p.m.
MT: 11:30 a.m. to 1:00 p.m.
CT: 12:30 p.m. to 2:00 p.m.
ET: 1:30 p.m. to 3:00 p.m.
AT: 2:30 p.m. to 4:00 p.m.

**For more information contact the Canadian
Osteoporosis Patient Network (COPN) at:**
copn@osteoporosis.ca or
1-800-463-6842 ext. 224

How to participate on the day of the event?
Go to: <http://webcast.otn.ca/>, Under "Live Events", click "Private"

Enter the following: Username: osteo
Password: forum09
Click on TSM#: 27667350
*No online pre-registration required.

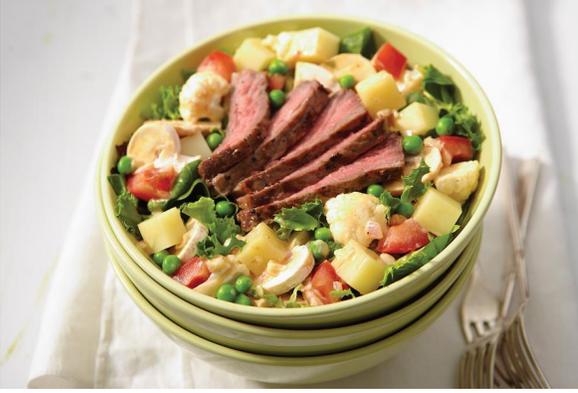
Do you have the system requirements? <http://webcast.otn.ca/support>

Free Event

For more information on Osteoporosis Canada and the Canadian Osteoporosis Patient Network (COPN)
call 1-800-463-6842 or visit our website at www.osteoporosis.ca

A Recipe from our Sponsor

Grilled Beef and Mozzarella Salad



Course: *Salads*

Preparation Time: *20 mins*

Cooking Time: *10 mins*

Yields : *4 to 6 servings*

3/4 milk product serving(s) per person

Tips

For a change of taste, use Canadian Swiss cheese, Gouda or Provolone.

For more information about this recipe:

<http://www.dairygoodness.ca/getenough/recipes/grilled-beef-and-mozzarella-salad>

Preparation

1 1/3 lb (600 g) sirloin steaks
1 tbsp (15 ml) steak spices
1/4 cup (60 ml) mayonnaise
2 tbsp (30 ml) barbecue sauce
2 tbsp (30 ml) **milk**
4 cups (1 l) lettuce, washed and shredded
1 cup (250 ml) green peas, fresh or thawed
1 cup (250 ml) tomatoes, diced
1 cup (250 ml) cauliflower florets
1/4 cup (60 ml) red onion, chopped
2 cups (500 ml) mushrooms, sliced
1 1/2 cups (375 ml) **Canadian Mozzarella**, diced or grated
Hot peppers (optional)

Instructions

Rub steaks with steak spices and let rest a few minutes.

Preheat grill to high heat or use a frying pan to cook steaks to desired doneness.

In a large bowl, mix mayonnaise with barbecue sauce and milk.

Add remaining ingredients and toss to thoroughly coat salad with dressing.

Slice steaks and serve on top of salad

NOTICE: Every issue of COPING is vetted by members of Osteoporosis Canada's Scientific Advisory Council to ensure accuracy and timeliness of content. These newsletters are not intended to promote or endorse any particular product. Product references, if they appear, are for illustration only.

These newsletters are not intended to replace individualized medical advice. Readers are advised to discuss their specific circumstances with their healthcare provider.

This issue of COPING is sponsored by Dairy Farmers of Canada



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