

## Hi to everyone in the Millhouse Community

Many of you will have encountered the young student doctors at the Millhouse Integrative Medical Centre. Thank you for sharing your health experiences with them as they practise their interview techniques, elicit information to formulate a diagnosis, and develop treatment plans for the illnesses you suffer. They also keep the medical staff on their toes by asking probing questions and discussing the "best practice" treatments which are currently taught at the Auckland Medical School.

In this newsletter 5th year medical student Edwin Yip writes about osteoporosis, iodine-containing foods in thyroid states, and the metabolic syndrome. I have also added a comment on osteoporosis and the use of strontium therapy, which may be of interest if you reacted adversely to Fosamax, a biphosphanate medicine.

Edwin Yip writes: *"To all staff and patients at Millhouse Integrative Medical Centre, it has been a pleasure working with and getting to know some of you during my short time here. It was a refreshing change from being stuck in the hospital and facing the paradigm of "an ambulance at the bottom of the cliff" to the more integrated approach as adopted in the community. Self empowerment, healthy living and a positive attitude are fundamental to the principles of prevention. I am grateful for the dedicated team at Millhouse Drive and I urge all patients to make good use of the resources they provide. Their commitment is well demonstrated on their website <http://www.millhousemedical.co.nz/> and in particular the newsletters.*

*Although I may choose not to work in a similar setting in my career to come, this experience will stay with me for the rest of my life. Thank you for making my stay here comfortable and I wish everyone the best of luck in the future." June 2011.*

### OSTEOPOROSIS AND BONE PROTECTION

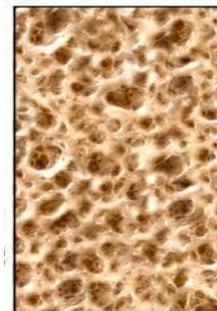
This is a common problem in older people, affecting up to 50 percent of post-menopausal women and almost one in three men (due to decreasing levels of estrogen and testosterone in the body)<sup>1</sup>.

Other risk factors include long-term steroid use, smoking, excessive alcohol intake, low body weight, lack of weight-bearing exercises and vitamin D deficiency. Although effective, hormone replacement therapy (HRT) is not without its side effects; the women's health initiative study indicates that HRT should NOT be recommended for this purpose.

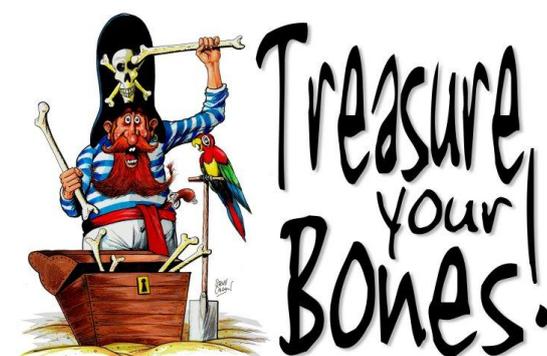
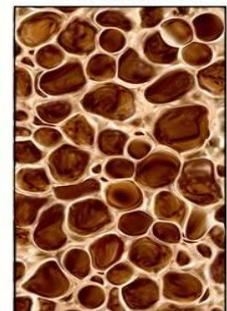
Below are a few tips on how to maintain healthy bones.

- **STAY ACTIVE:** If you do not move around, your bones will thin out. Exercises that improve balance may reduce your risk of falling.
- **STOP SMOKING:** Smoking reduces your bone mass and prolongs your recovery after a fracture (plus many more detrimental health effects).
- **MINIMISE ALCOHOL INTAKE:** Too much alcohol reduces your hormonal levels and predisposes to osteoporosis (this is particularly true in males).
- **VIT D SUPPLEMENT:** 800-1000IU/day reduces the risk of non-vertebral fractures by at least 20%.<sup>2</sup> It also reduces the risk of hip fractures.
- **GREEN TEA:** Epidemiological studies<sup>3</sup> suggest people who drink green tea have a higher bone mass than those who do not. This could be related to the anti-oxidant and anti-inflammatory properties of polyphenols.

Normal bone matrix



Osteoporosis



**A BONE MINERAL DENSITY (DEXA) SCAN** can help identify those at high risk who will benefit from further treatment. **Bisphosphonate** is an effective class of drug which improves bone mass and reduces fracture risk. Talk to your doctor if you are a woman >65 years, man >70 years or have had a fracture and are aged >50.

**(RJC)** Before I comment on Strontium therapy in the treatment of osteoporosis, let me say something about calcium gut absorption.

Calcium is made more available with acid foods (yogurt) and with an acid stomach environment. **The long term use of omeprazole & pantoprazole, acid inhibiting drugs, predispose to osteoporosis.** If you have been

diagnosed with significant osteoporosis you may also have **coeliac disease which prevents calcium absorption** (also iron, B12 and folic acid) and don't forget **vitamin D which triggers the small intestine to begin the calcium assimilation process.**

**STRONTIUM (RJC)** we associate with radioactivity but the non-radioactive form is one of the most abundant elements on earth first discovered in 1801 near the Scottish town Strontian. Strontium sits in the periodic table of elements directly below calcium and has very similar properties.

The first study<sup>4</sup> using strontium in osteoporosis took place in 1959 when 32 patients were given 1.7gm of strontium lactate daily. Eighty-four percent of the patients reported marked relief of bone pain, and the remaining 16 percent experienced moderate improvement. No significant side effects were seen and X-rays taken at the beginning and end of the study showed "probable" increased bone mass in 78 percent of the cases; DEXA scans were not available then for accurate analysis.

In 1985, Dr. Stanley C. Skoryna at McGill University in Montreal conducted a small-scale study<sup>5</sup> in three men and three women with osteoporosis who were given 600 to 700 mg strontium carbonate daily. Bone biopsies showed a 172 percent increase in the rate of bone formation after strontium therapy. The patients receiving strontium remarked that the pain in their bones had diminished and their mobility had improved.

A large trial<sup>6</sup> on 1,649 osteoporotic postmenopausal women, who received 2 gm/day of strontium ranelate daily (providing 680 mg strontium) or placebo for three years with calcium and vitamin D, was published in 2004. Patients in the strontium group had fewer fractures with a risk reduction of 49 percent in the first year of treatment and 41 percent during the three-year study period. The strontium group had increased lumbar bone mineral density average of 14.4 percent and the femoral neck of 8.3 percent. The authors concluded that "treatment of postmenopausal osteoporosis with strontium ranelate leads to early and sustained reductions in the risk of vertebral fractures."

**Strontium may be useful if you reacted adversely to biphosphanate therapy.** I prefer strontium citrate which is available on-line at the Tahoma Pharmacy, [www.tahomadispensary.com](http://www.tahomadispensary.com)

**THYROID DYSFUNCTION (EY)** In people with thyroid dysfunction (either over- or under-activity), it is recommended to avoid foods laden with iodine such as seaweed, and to reduce intake of known oestrogens such as soy, as both have been reported to affect thyroid function<sup>7</sup>.

**CARBOHYDRATE RESTRICTION DIET AND METABOLIC SYNDROME (EY).** The metabolic syndrome is defined by a collection of features which include truncal obesity (overweight), glucose intolerance (diabetes), hypertension (high blood pressure) and dyslipidaemia (high cholesterol), all of which increase the risk of a heart attack. Reducing the daily intake of carbohydrate modifies ALL of the above features favourably<sup>8</sup>. It may be worthwhile to trim down your portion-size of potatoes, breads, rice, noodles and replace them with meats, seafood, green vegetables or even fat (but avoid trans fat!!).



### The Metabolic Syndrome

**FOR MEN:**

- Waist Circumference  $\geq$  40 Inches
- Triglycerides  $\geq$  150 mg/dL
- HDL Cholesterol  $<$  40 mg/dL
- Blood Pressure  $\geq$  130/85 mm Hg
- Fasting Glucose  $\geq$  100 mg/dL

**FOR WOMEN:**

- Waist Circumference  $>$  35 Inches
- Triglycerides  $>$  150 mg/dL
- HDL Cholesterol  $<$  50 mg/dL
- Blood Pressure  $>$  130/85 mm Hg
- Fasting Glucose  $>$  100 mg/dL

## MILLHOUSE NEWS:

**OSTEOPATH JOINS MILLHOUSE.** We welcome **Ghassan Alaraji, a skilled osteopathic practitioner** trained at the UNITEC Institute of Technology in Auckland, who begins in September. Osteopathy is a gentle physical therapy especially useful in the treatment of back, neck, muscle and sports injury. Ghassan has a special interest in assisting high performance athletes in their return to peak performance.

**Dr Ric** is away in September and **Dr Scott** on vacation in October.

**Rhiannon** our new highly skilled practice nurse will shortly undertake the ANNUAL FREE DIABETIC CHECKS. This is an exciting development as we explore nurse-led clinics in patient educational areas.

Yours in good health  
Dr Richard J Coleman.

<sup>1</sup> Putnam S.E et al. Phytotherapy Research. 2007; 21; 99-112

<sup>2</sup> Bischoff-Ferrari H.A et al. Arch Intern Med. 2009; 160(9): 551-561

<sup>3</sup> C-L Shen et al. Nutrition Research 2009; 29; 437-456

<sup>4</sup> McCaslin, F.E., Jr., and Janes, J.M. Proc Staff Meetings Mayo Clin, 1959, 34:329-334.

<sup>5</sup> Skoryna, S.C. et al. Trace substances in environmental health XIX, edited by D.D. Hemphill, University of Missouri, Columbia, Missouri, 1985, 193-208.

<sup>6</sup> Meunier, P.J. N Engl J Med, 2004, Jan 29;350(5):459-68.

<sup>7</sup> Teas J. et al. J Med Food. 2007; 10(1); 90-100

<sup>8</sup> Volek J.S et al. Lipids. 2009; 44; 297-309