



osteoblast

National Magazine of Osteoporosis Australia

LATEST NEWS • PREVENTION AND TREATMENT • HELPFUL TIPS

INTERNATIONAL OSTEOPOROSIS FOUNDATION UPDATE

Osteoporosis Australia CEO receives international recognition

OSTEOPOROSIS AUSTRALIA ALIGNS WITH EXERCISE PROGRAM

New evidence based program developed in Australia

BONE HEALTH BASICS

The important role of calcium



WELCOME!

**Welcome to the
Osteoblast Winter
edition.**

Osteoporosis Australia has been working closely with many stakeholders to deliver a national strategy for osteoporosis to address current gaps in osteoporosis care in Australia. This plan has now been submitted to the federal department of health. Enjoy catching up on other news updates and try our delicious recipe idea.

Greg Lyubomirsky CEO

International recognition for CEO of Osteoporosis Australia

The International Osteoporosis Foundation (IOF) hosted the largest osteoporosis congress attracting medical experts and researchers from around the world in Paris, France on April 5, 2019. The congress is dedicated to musculoskeletal health and disease prevention.

Our very own, Greg Lyubomirsky was awarded the IOF President's Award, only the third Australian to receive this award. The award recognises great personal commitment and



OA CEO Greg Lyubomirsky accepts the IOF President's Award at the 2019 International Osteoporosis Foundation Congress in Paris.

outstanding effort in advancing education, awareness and advocacy in the area of osteoporosis.

The award reflects the enormous importance of patient societies, which play an essential role in the global fight against osteoporosis. In response to this once in a lifetime achievement Mr Lyubomirsky said "receiving the 2019 IOF President's Award is a great honour. It recognises our significant achievements in the bone health arena to date and further signals the importance of doing more to help reduce the impact on patients, their families and the healthcare system" According to research there are 4.74 million Australians over the age of 50 (that is 66% of the population) who currently have osteoporosis or osteopenia or poor bone health. By 2022 it is estimated there will be 6.2 million Australians over the age of 50 with osteoporosis or osteopenia.

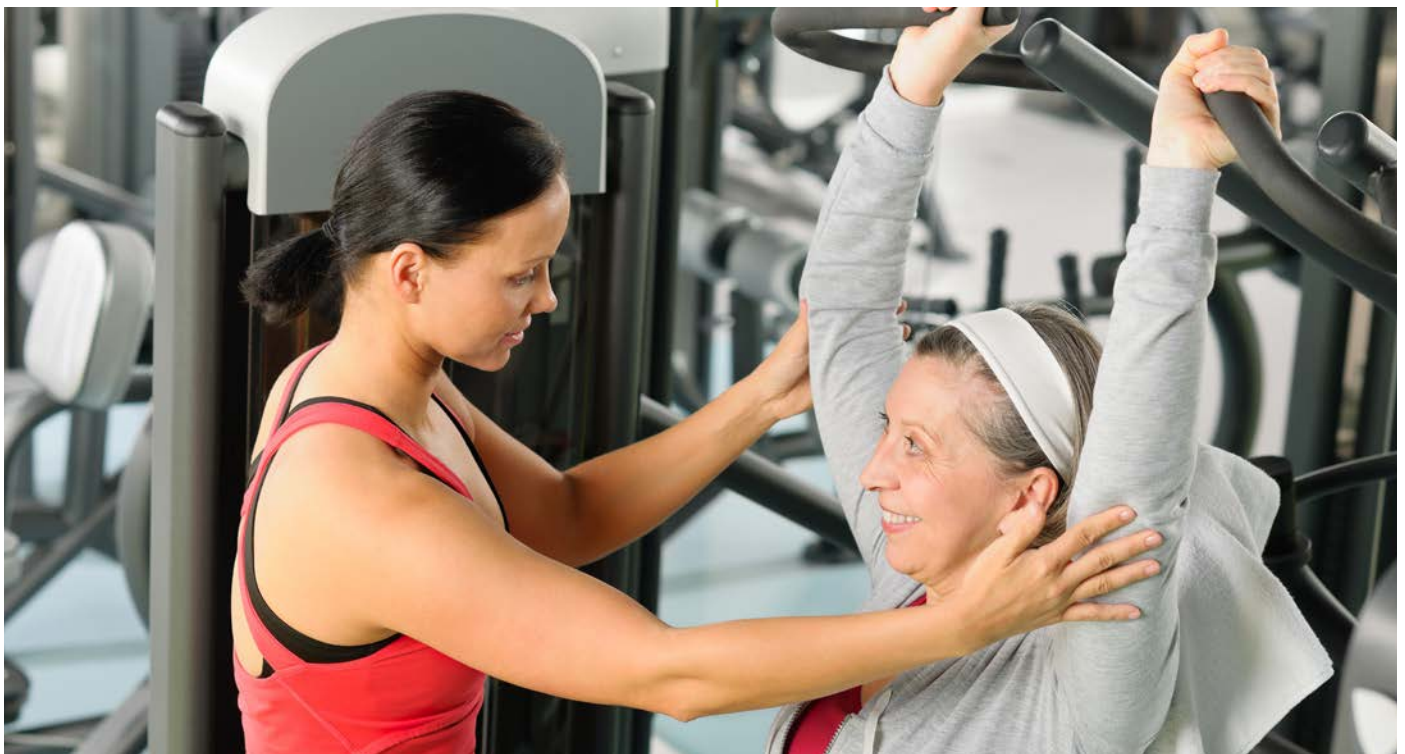
Osteoporosis Australia aligns with exercise program

Exercise is an important part of maintaining bone health and research is helping to explain which types of exercise are best for bones. Osteoporosis Australia has recently aligned with an evidence-based exercise program called ONERO. Only exercise professionals (physiotherapists or exercise physiologists) who become 'ONERO Accredited Practitioners' by completing the ONERO Academy training program are certified to deliver this training to members of the public. The ONERO Academy training program is accredited by Exercise and Sport Science Australia and was developed by Professor Belinda Beck of Griffith University and Lisa Weis of The Bone Clinic. Professor Beck says "When it comes to our bones the research tells us not all exercise is equal. In fact,

exercise that is targeted, supervised and focuses on resistance and impact training is best."

Greg Lyubomirsky said "ongoing research is helping us understand why exercise is important for bone and muscular health and how it can assist people with low bone density." Greg says bones like a degree of stress placed upon them "studies have shown a lack of exercise is bad for bones and even research conducted by NASA has shown astronauts rapidly lose bone strength due to weightlessness in space, so we know bones will respond to certain types of exercise training." Greg says there is more work to be done in this field but this Australian research program is an important start.

To search for an ONERO Accredited Practitioner visit the map on the ONERO website - <https://onero.academy/osteoporosis-exercises/>



Young Researcher in the Spotlight

In this issue we shine the spotlight on Marc Sim, Post-Doctoral Research Fellow at the School of Medical and Health Sciences, Edith Cowan University, WA



Q1. What got you interested in bone research? What do you think is the most misunderstood thing about our bones?

Coming from an exercise science and nutrition background, I have always been interested in the role that physical activity and nutrition have on healthy musculoskeletal ageing. My interest in the bone field really came about from the mentorship of Professor Richard Prince who leads research on the role of diet and its impact on muscle function, falls and fractures in the Perth Longitudinal Study of Ageing Women (PLSAW). I found it fascinating how specific foods and nutrients were linked to better muscle function and lower risk for future falls and fractures.

In terms of the most misunderstood thing about musculoskeletal health, the role of protein, vitamin D and calcium have typically predominated nutritional-related aspects for bone health. Considering the link between fruit and vegetable intake and cardiovascular health is well established, more attention should be paid towards the importance of overall diet quality through whole foods.

Q2. Tell us about your area of research.

I am currently part of a research team that examines the role of nutrition and how it affects healthy ageing. Specifically, key themes of our work include the role of how different types of fruit and vegetables including their nutrients may be used to improve vascular and musculoskeletal health. I am also extremely interested in the role that muscle mass, muscle strength and physical function have on the risk of falls and fractures.

Q3. What are you currently working on?

Our group is currently working on a trial to determine if increasing vitamin K1 intake from green leafy vegetables over 4 weeks has a positive influence on markers of bone health. This work has stemmed from previous research suggesting the importance of vitamin K for muscle strength and bone health. We are hoping to present our findings at the 2019 Australia and New Zealand Bone and Mineral Society Conference in Darwin later this year.

Q4. What do you think is the most exciting thing on the horizon for bone health?

The emerging field of clinical cut offs

for low muscle, weak muscle strength and poor physical function as part of sarcopenia definitions have recently gained a lot of interest in the musculoskeletal field. It is really interesting that research now recognises the importance of muscle function as opposed to muscle mass alone when considering outcomes such as falls and fractures. I am also excited by recent work highlighting the synergy between the cardiovascular and musculoskeletal systems.

Q5. What do you do to relax when you are not working as a researcher?

I really enjoy road cycling, watching English Premier League Football and spending time with my family. I cycle to work on most days and spend a couple of hours on the weekends riding in the hills of Perth.

Specialists in Osteoporosis

In Australia osteoporosis is commonly managed by GPs. However for patients who experience more complicated issues, such as multiple fractures or have several health conditions a referral to a specialist may be needed. When it comes to osteoporosis typically, a referral from a GP will be to either an endocrinologist or a rheumatologist who focuses on osteoporosis.

Within the hospital setting, when a patient has a fracture, a mix of specialists can be involved- emergency department specialists, orthopaedic surgeons, geriatricians or rehabilitation specialists.

It is important that after leaving hospital a patient returns to either their GP or their specialist for ongoing management of their bone health.



Mozzarella chicken with butter bean mash

By Justine Pattison

www.bbc.co.uk/food/recipes/mozzarella_chicken_with_82882



Boneless chicken breasts browned in a pan then covered in a rich tomato sauce with onions, herbs and topped with mozzarella. Served with butter bean mash and salad.

Preparation time: Less than 30 mins

Cooking time: 30 mins to 1 hour

Serves: Serves 4

Ingredients:

4 chicken breasts, boned and skinned
calorie controlled cooking oil spray
1 medium onion, thinly sliced
2 garlic cloves, crushed
400g tin chopped tomatoes
3 tbsp tomato purée
1½ tsp dried oregano
85g/3oz pitted green or black olives
2 x 125g packs reduced fat mozzarella, sliced and drained on kitchen paper

For the butter bean mash

calorie controlled cooking oil spray
1 medium onion, finely chopped
1 garlic clove, crushed
2 x 400g tin butter beans, drained
good squeeze lemon juice
sea salt and ground black pepper

Method

1. Season chicken breasts with salt and pepper. Spray a large non-stick frying pan with oil and place over a high heat. Cook the chicken both sides for 3 minutes or until lightly browned. Transfer to a plate.

2. Reduce the heat to low, spray a little more cooking oil into the pan and cook the onion for 4-5 minutes, stirring until softened and lightly browned. Add the garlic and cook for a few seconds.

3. Pour in tomatoes. Stir in the tomato purée, oregano, olives and 300ml/10fl oz cold water. Bring to the boil and cook for 5 minutes, stirring regularly. Reduce heat to a simmer and add the chicken. Cook for 10 minutes, stirring occasionally, until chicken is tender and cooked through. Season to taste.

4. Preheat the grill to its hottest setting. Top the chicken and sauce with the sliced mozzarella. Sprinkle with ground black pepper. Place under the hot grill and cook for 2-3 minutes or until the cheese melts.

5. For the butter bean mash, spray a small non-stick saucepan with cooking oil placing over medium heat. Add the onion and cook for 3 minutes. Add the garlic and cook for 1 further minute.

6. Place beans in a food processor with 100ml/3½fl oz water, a pinch of salt and pepper. Add the cooked onion and garlic and blend to a thick purée. Spoon back in to the saucepan and heat, stirring constantly until hot. Add a squeeze of lemon, season to taste.

7. Divide the butterbean mash between 4 plates and add the chicken and sauce. Serve with freshly cooked vegetables or salad.

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www.knowyourbones.org.au



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bones

bone health assessment tool



Garvan Institute
of Medical Research



osteoporosis australia

A JOINT INITIATIVE FOR FRACTURE PREVENTION

Let's Talk About Calcium

Approx. 99% of the calcium in the human body is found in the bones and teeth; it is vital for the development, growth and maintenance of our bones.

Bones act like a calcium bank. If you do not take in enough calcium from your diet to replace losses and maintain adequate levels in the blood, the body reacts by 'withdrawing' calcium from your 'bone bank' and depositing it into the bloodstream. If your body withdraws more calcium than it deposits over a long period, your bone density (bone strength) will gradually decline and you may be at risk of developing osteoporosis.

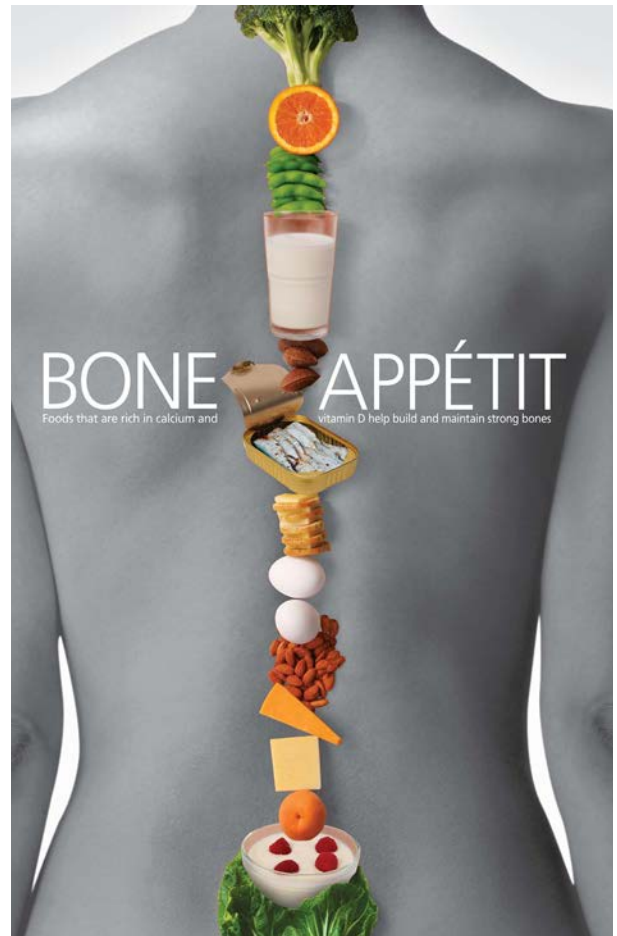
The highest daily requirements are for teenagers (a period of rapid bone growth) and for women over 50, in particular, menopause is a time of more rapid bone loss and men over 70.

For most Australians, dairy foods are the main source of calcium and an easy way to obtain adequate calcium. Milk, yoghurt and most cheeses are particularly high in calcium (this includes reduced fat and low fat options). Osteoporosis Australia recommends 3-5 serves of calcium rich food daily.

People who dislike or are intolerant to dairy products require more serves of other high calcium-containing foods; for example, calcium rich vegetables, tinned sardines or tinned salmon (including the bones), calcium rich nuts and fruits, or calcium fortified foods.

Osteoporosis Australia recommends

that you obtain your required calcium intake from your diet. When this is not possible, a supplement may be required, at a dose of 500-600 mg calcium per day. Adequate vitamin D is necessary for calcium absorption from food. Osteoporosis Australia recommends maintaining adequate vitamin D levels to support bone health.



Questions about Osteoporosis?

call our **FREE**

HELPLINE

1800 242 141

Monday - Friday

10:00am - 4:00pm