The State of Men's Bone Health

Research Bites: Research Review by Dr Lisa Croucher
Hypogonadism and Osteoporosis

Healthy Bones Australia: Scream for Halloween

Real Men Build Their Strength From Within

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The State of Men’s Bone Health

Australian men are not alone when it comes to poor bone health. It is a worldwide issue and 1 in 5 men over 50 will break a bone due to poor bone health.

In Australia over 1 million people have osteoporosis and nearly a quarter are men. Men also account for 30% of fractures related to poor bone health. A national survey conducted by Osteoporosis Australia found 40% of young men (18-24 years) thought osteoporosis was rare in men and up to 60% of all men surveyed did not believe they were at risk of osteoporosis.

In the lead up to World Osteoporosis Day 2014 the International Osteoporosis Foundation (IOF) released a new report Osteoporosis in Men, Why Change Needs to Happen. Lead author of the report, Professor Peter Ebeling (IOF Board member and Medical Director of Osteoporosis Australia) said “in Australia, USA, EU and other countries and regions the projections suggest the total number of fractures in men are set to increase. We must act now to ensure men not only live longer but also have a future free of the pain and suffering caused by osteoporotic fractures.”

The IOF conducted an international survey of adults in 12 countries that showed adults (up to 90%) were unaware of how common fractures are in men. The survey also showed up gaps in how bone health is managed by doctors. More than 50% of men over 50 years old said they had never had any form of bone assessment during a check-up – including being asked about bone health, discussing risk factors for osteoporosis, queries about broken bones or referral for a bone mineral density test.

Gail Morgan, CEO of Osteoporosis Australia said “in Australia this is something we can change by providing information for men, getting them to discuss risk factors with their doctor and promoting the prevention message.”

New resources for men have been released on the Osteoporosis Australia website which can be used by general practitioners with male patients, including:

- Fact Sheet for Men
- A Man’s Guide to Osteoporosis Prevention
- 5 Steps to Better Bone Health

The Hon Peter Dutton MP, Minister for Health released

WELCOME

This issue of Osteoblast deals with probably one of the most underdiagnosed and undertreated conditions in medicine: Osteoporosis in Men. Many people believe osteoporosis is a problem specific to older women. Well, it’s not. In Australia, an estimated 250,000 men suffer from osteoporosis, with every third osteoporotic fracture occurring in men. Most men believe they are not at risk of osteoporosis – why? Don’t ask me, I wouldn’t know! After 30 years in clinical practice, I’m constantly flabbergasted by how little men know about their health in general and how little they care about their bone health in particular. I hope this issue of Osteoblast will change this unhealthy attitude just a tiny little bit – in both men and their doctors.

Prof Markus Seibel
The State of Men’s Bone Health (Cont.)

a special video message in the lead up to World Osteoporosis Day urging Australians to take their bone health seriously. Minister Dutton said osteoporosis is a significant health issue affecting men as well as women and encouraged everyone to “think about their bones and to ask their doctor for help in looking after them.” The Minister noted “when your bones shatter the road to recovery can be a long one.” The Minister encouraged both prevention and early diagnosis to manage osteoporosis, (view message at www.osteoporosis.org.au).

Osteoporosis Australia also hosted an event at Parliament House Canberra (1 October) to kick off the theme of Osteoporosis in Men and highlight men’s bone health nationally. The event was supported by Andrew Charter, Australian men’s hockey goalie and Commonwealth Gold Medalist, and former Wallaby Pat McCabe (pictured below with Osteoporosis Australia Chairman John Hewson).

Pat McCabe, wearing a neck brace, explained how he was forced to retire from his professional playing career due to multiple vertebral fractures sustained on the field. He warned men to avoid any type of fracture, and protect their bone health. He said he has experienced first hand how limiting fractures can be — restricting movement and stopping day-to-day living. Professor Ebeling urged general practice to investigate male patients with risk factors for osteoporosis and raise the issue of bone health with male patients, especially where secondary causes exist.

The event was attended by federal politicians from all sides of politics and representatives from national organisations including Carers Australia, Pharmacy Guild, Medicines Australia and the Australian Institute of Health & Welfare.

“60% of men do not believe they are at risk of osteoporosis”
The Annual Scientific Meeting of the Australian and New Zealand Bone and Mineral Society was held in Queenstown, New Zealand in September. The four day meeting hosted high quality presentations of the latest in basic and clinical bone research. Below is a snapshot of conference presentations relevant to GPs working to improve the bone health of their patients.

**Bone density testing – a health education tool for osteoporosis prevention?**

Self-efficacy – a person’s ability to adopt lifestyle changes to prevent osteoporosis – is central to reducing the burden of osteoporosis in the community. The findings of a long term trial to investigate the self-efficacy potential of providing patients with their bone density results were presented by Dr Tania Winzenberg of the Menzies Research Institute, Hobart. Pre-menopausal women informed that they were at higher risk of fracture were more likely to adopt bone-friendly behaviours than those told they were at ‘normal’ risk of fracture, also showing greater improvements in bone density at the femoral neck. At a ten year follow-up, the high-risk group showed smaller decreases in bone density at the femoral neck, and were more likely to continue bone-friendly behaviours. Providing individualised bone health information could be a viable strategy for osteoporosis prevention in later life.

**Declining fracture incidence is not mirrored by better post-fracture outcomes**

New data presented by Dr Dana Bluic and colleagues from Sydney’s Garvan Institute of Medical Research shows that despite declining incidence of hip fracture, the risk of secondary fractures remains unacceptably high. The researchers compared two cohorts of men and women participating in the Dubbo Osteoporosis Epidemiology Study, of similar age (>60 years) but separated by time. Osteoporosis prevalence declined by approximately 40% in the later-born cohort compared to the early-born cohort, with fracture incidence decreasing by around a third. However, neither incidence of re-fracture nor excess mortality rate post-fracture changed. With an ageing population and expected increasing healthcare burden of osteoporotic fracture, the researchers call for urgent exploration of the reasons behind these alarming findings.

**Some androgen deprivation therapies are associated with higher fracture risk**

Androgen deprivation therapy (ADT) accelerates bone loss and increases the risk of fracture. The potential to stratify fracture risk by type of ADT was explored by Dr Alice Wang and colleagues from the University of Auckland. Examining the health records of over 25,000 men with prostate cancer, the researchers found that men receiving combined androgen blockade (GnRH agonists plus anti-androgens), and those undergoing bilateral orchietomy combined with pharmacologic ADT were at greatest risk of fracture. Men receiving single therapies (GnRH, anti-androgens or a bilateral orchietomy) were at comparatively lower risk. Overall, ADT is associated with higher risk of fracture and increased post-fracture mortality. Whilst monitoring and managing bone health in all men undergoing ADT is important, identifying those at highest risk of fracture is crucial.

**Hypogonadism and Osteoporosis**

Secondary causes of osteoporosis in men are common – testosterone deficiency caused by hypogonadism, which occurs in up to 12.3% of men, tops the list. Research shows a strong association between hypogonadism and hip fracture in older men living in residential care homes. Primary causes of hypogonadism include testicular trauma, liver or kidney disease, excess alcohol consumption and glucocorticoid use. Androgen deprivation therapy (ADT) for prostate cancer is one of the leading secondary causes of hypogonadism. ADT has been shown to increase bone loss, and men with prostate cancer treated with ADT are more likely to suffer a fracture than those not treated with ADT. Bone loss can occur within months of commencement of ADT, so general practitioners need to be especially vigilant about the bone health of patients undergoing all forms of ADT, pharmacologic or surgical. Bone density testing is recommended, with preventative osteoporosis medication for those considered to be at higher risk of fracture. Bone loss is treatable and fractures are preventable in men suffering testosterone deficiency. General practitioners are key to reducing the growing but under-recognised burden of osteoporotic fracture in men as the population ages and the prevalence of secondary osteoporosis increases.
Healthy Bones Australia: Scream for Halloween

Osteoporosis is often called the ‘silent disease’ because there are no symptoms until a bone fractures. Well not this year! Healthy Bones Australia ran a fundraising campaign called SCREAM for Halloween, to raise the profile of bone health nationally.

The general public was invited to help ‘Team Scream’ reach their fundraising target, in return the team would complete a challenge. Donations are still coming in for Team Scream made up of Ambassadors: Jude Bolton (former Sydney Swans player), Andy Allen (Masterchef winner), Susie Burrell (Dietician) and Elka Whalan (Olympian). It's not too late, donate at: http://screamhealthybonesaustralia.gofundraise.com.au/

Thanks to the uni groups, pharmacies and individuals who hosted their own Scream for Halloween events to raise funds and awareness. Don’t be silent about bone health.
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