

# healthy living advertising feature



health options for the mature west australian





## Millions of Australians have poor bone health: don't be one of them





by Robert Vander Kraats, **Sport Physiotherapist** 

#### Osteopenia vs osteoporosis

THE word osteo refers to bones. Osteopenia therefore refers to a lack of bone, and osteoporosis refers to porous bones.

Both conditions refer to a reduction in the bone mineral density - the thickness or strength of the bone. A test can measure this. If a patient gets a T Score value greater than -1 this is in the normal range. -1 to -2.5 means a person has osteopenia and -2.5 or lower indicates osteoporosis.

Osteopenia can progress into osteoporosis if not appropriately treated and managed. Bone density loss occurs in both, however the loss is more pronounced in osteoporosis.

Bone density loss in some cases is due to menopause, resulting from a reduction in oestrogen in women and testosterone in males. But younger people can also be affected by osteopenia. Research has found that individuals who have a lower Body Mass Index, particularly women, can be at greater risk.

Osteoporosis Australia reported that 6.2 million Australians over 50 years of age have osteopenia. osteoporosis or poor bone health. Of the 6.2 million, 78 per cent have osteopenia, and 22 per cent have osteoporosis and are at risk of fractures. One bone fracture occurs every 2.9 minutes, which is 501 fractures per day, and 3,521 fractures per week.

#### **Risk factors?**

Age alone in isolation is often not a risk factor. Osteoporosis Australia suggests the following risk factors:

· A sedentary lifestyle Lack of exercise

• Smoking

Medications

 Poor diet · Low Vitamin D

Inadequate calcium

· Family history of osteoporosis

 Low body weight or a low Body Mass Index Low levels of Calcium

and Vitamin D · Insufficient exposure to a safe amount of sunlight Lactose intolerance

#### Exercises to prevent a decreased bone density

Osteoporosis Australia found that physically active older people have up to a 45 per cent lower risk of sustaining a hip fracture (a common osteoporosis complication), compared to sedentary people.

We know from the research conducted by NASA that gravity is important for bone density as is weight-bearing exercises. Before adaptive measures were in place for astronauts, often they would return to earth with a considerable reduction in bone mass, due to decreased impact and stress forces experienced while in space.

To prevent a reducin bone mass, tion weight-bearing exercises need to be included in the exercise program. Some examples include a brisk walk, jogging, stair climbing, skipping, a sport such as basketball or golf and dancing. Some exercises such as swimming can be good for cardiovascular health, but do not provide sufficient load to the bones. These are just some examples, there are many others that can be individualised to your needs.

Bone density and specifically load bearing exercises, can be combined with muscle strengthening and balance exercises. For a comprehensive and specific exercise program for your needs, Robert and Jeff from Next Generation Physiotherapy can assess and formulate an exercise program for you.

The above is just a guide and may not be suitable for your needs. Phone 9203 7771 to make an appointment with Robert and Jeff today for your weight-bearing exercise program. 291 Warwick Rd, Greenwood, www.ngp.net.au, 9203 7771.

### Stem cell therapy and arthritis symptom relief



Sandra Barnsley

ARTHRITIS is painful inflammation and stiffness of the joints. Inflammation is part of the body's natural response to protect joints from damaged cells; to remove irritants and infection - but also to start the healing process.

The most common

form of arthritis is osteoarthritis. This is a degenerative disease and often needs joint replacement surgery.

Osteoarthritis begins in the cartilage and eventually leads to two bone surfaces rubbing directly against each other. This is not only painful, but very restrictive on daily mobility and flexion.

Research shows that the body heals itself via the migration of adult stem cells from the bone marrow. Providing they can get to the tissue, adult stem cells can become new bone cells, cartilage cells and have been linked with an increase of lubricin (a pro-tein found in joint fluid

that acts like a shock absorber).

As we age our stem cells migration naturally declines. By age 50 it has reduced by 50 per cent and by age 65 you only have about 10 per cent the number of stem cells in your bloodstream that you had at 25.

Stem cell nutrition encourages your body to naturally rélease millions of new stem cells - which then replace damaged cells anywhere in the The more stem body. cells you have in your bloodstream the better. If you would like to find out how stem cell therapy can change your life. phone Sandra Barnsley 0412 479 156.

## Volunteers needed for lung disease research studies



THE symptoms and problems associated with chronic obstructive pulmonary disease (COPD) can have a debilitating impact on quality of life. This chronic, progressive respiratory disorder can cause persistent coughing and repeated infections.

More people are being diagnosed with the lung condition but only limited treatment options are available. But there is hope through life-saving clinical trials being undertaken at the Institute for Respiratory Health based at the Harry Perkins Institute

The Institute provides patients access to cutting-edge treatments and new medications unavailable elsewhere, entirely free of charge. Patients also receive specialised care from a clinical team who have a deep understanding of the patient's condition and provide personalised advice, care and

The Institute is currently looking for volunteers to participate in a new clinical trial. If you've been diagnosed with COPD and suffer from a daily productive cough, you might be eligible to participate.

Why not get in touch? Every medical drug provided by your doctor or pharmacist today underwent a clinical trial. Not only will you be contributing to research that may change your quality of life, but you may also save lives for people with the same condition for generations to come.

The Institute also needs volunteers for the following lung conditions - asthma, bronchiectasis, cystic fibrosis, emphysema, idiopathic pulmonary fibrosis, and alpha 1-antitrypsin deficiency.

If you have any of these health conditions, or know someone who does and wish to participate in a life-changing clinical trial, please call (08) 6151 0813 or email admin@resphealth.uwa.edu.au.

## State-first adaptive radiation therapy technology has arrived at St John's Murdoch

WEST Australian cancer patients now have access to an innovative adaptive radiation therapy treatment thanks to the arrival of the Elekta Unity MR-Linac machine at the new \$17 million integrated cancer centre at St John of God Murdoch Hospital.

cutting-edge technology, the first of its kind in Western Australia, will allow radiation oncologists to visualise cancerous tissue during treatment, combining MRI diagnostics with highly targeted radiation therapy.

The combination enables crystal clear differentiation of soft tissues during treatment and will allow for adjustment in real time, known as adaptive planning, to account for movement in the tumour and surrounding healthy tissue.

The successful delivery and installation of the MR-Linac technology marks an important milestone for the integrated cancer centre which opened its doors to patients at the end of

The new centre is the result of a partnership between Centuria Healthcare, St John of God Murdoch Hospital, and the leading provider of radiation oncology services in Australia, GenesisCare.

GenesisCare Radiation Oncologist and medical director of the new facility, Dr Tee Lim, said the technology in-stalled at Murdoch heralds a new era for radiation therapy in Western Australia and provides cancer patients with access to a highly precise non-invasive treatment option.

"Many tumours are located in organs that move during or between radiation treatment sessions. Often, they are located near sensitive tissues, such as the bladder or bowel, which we obviously want to protect during treatment.

"The Elekta Unity-MR Linac system allows us to visualise cancerous tissue during treatment in real time, adapting the plans and margins to minimise radiation exposure to surrounding healthy tissue and limit side effects.'

"This new treatment technology is a game-changer for West Australian cancer patients, and we are thrilled to be offering this innovative adaptive treatment at our new radiation oncolo-

gy centre at St John of God Murdoch Hospital," he said.

In addition to the MR-Linac technology, the new cancer centre at Murdoch will offer ground-breaking theranostics and nuclear medicine services. It will also house the latest molecular imaging equipment, including a PET-CT scanner, crit-ical for directing and monitoring new target-

ed molecular therapies. The new facility has the capacity to treat up to 1,000 cancer patients a year and will be fully integrated into the St John of God Murdoch Hospital.



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## Friendly, reliable in-home support

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