

# Health takes leaps and bones

Osteoporosis affects more than two million Australians but until comparatively recently, it was neither well known nor understood



Sue Baldwin, Head of St Andrew's War Memorial Hospital QDI Nuclear Medicine section.

**O**STEOPOROSIS was a little known and understood condition when Sue Baldwin started using one of Queensland's first diagnostic machines in 1991. "In years gone by your grandmother fell over and broke her hip and everyone just thought it was because she was old. But it was from about the early '90s that people started to realise it was actually osteoporosis," the St Andrew's War Memorial Hospital Queensland Diagnostic Imaging (QDI) nuclear medicine section head said.

About 2.2 million Australians are affected by osteoporosis today, with between 70,000 to 100,000 osteoporotic fractures per year. St Andrew's War Memorial Hospital consultant orthopaedic surgeon Dr John Tuffley said a large percentage of the serious orthopaedic cases, treated by the hospital's medical staff were related to osteoporosis, particularly in older women.

"A significant component of the trauma cases in older women are linked to osteoporosis, particularly the hip and wrist fractures," says Dr Tuffley, who specialises in a number of areas including joint replacement and paediatric conditions.

The first drugs so crucial to patient care today were coming on to the market at the same time as diagnosis and technology were leaping ahead in the early 1990s.

"There have been tremendous advances in the medications available to treat osteoporosis. Bisphosphonates such as alendronate (Fosamax) and risedronate (Actonel) both increase bone density and reduce fracture risk. Over the years, with research and clinical trials, these medications have gone from daily doses to monthly doses. Other treatments include strontium ranelate (Protos), SERMs (Evista),

teriparatide (Forsteo) and zoledronic acid (Aclasta)," Mrs Baldwin says.

Almost 20 years ago Mrs Baldwin was working with the first bone densitometry machine at Royal Brisbane Hospital. St Andrew's had a bone densitometry unit at the same time and Henry Ellison was heading up the department.

"They were doing about 16 scans a day at that time," Mrs Baldwin says.

Today St Andrew's bone density technologists are in high demand, and the hospital boasts some of the best equipment and high-quality scans delivered by expert staff.

"Staff at QDI St Andrews are trained through an internationally recognised course and are tested on the precision and accuracy of their imaging technique. This provides patients and referrers with true results."

"The staff are constantly undergoing training. If people come to Queensland Diagnostic Imaging at St Andrews War Memorial Hospital they can be assured of the quality of the scan and of getting a knowledgeable and caring technologist," Mrs Baldwin says.

One of the most significant changes for patients is the time taken for a scan.

"Just a few years ago it was a 30 minute procedure but now it takes just 15-20 minutes and is an easy, painless test," Mrs Baldwin says.

"Research into bone density has dramatically increased and there are better drugs and increased public awareness about the issue."

"Important research is being done right here in Queensland by a number of institutions. One such study is being done by Associate Professor Mark Forwood at the University of Queensland on bone fragility."

Other studies look at complex interactions of our body's chemical and genetic make-up, environmental factors, diet, exercise, and the impact of certain drugs on our bone structure.

Mrs Baldwin has seen the lives of patients transformed by improved technology and medications.

"When people have had multiple fractures

they become quite disabled. It affects their whole life and quality of life. Their height, eating and general enjoyment of life... it is all impacted," she says.

"I have seen people come in and have scans and their results are really quite alarming. But by the time we see them again in 12 months or two years time, with appropriate clinical management, things have really turned around."

Dr Tuffley said many people with osteoporosis ended up needing major surgery to treat insufficiency fractures that could have been prevented if their osteoporosis had been diagnosed and treated at a younger age.

"In the past we did not have good diagnostic equipment. Now that we have all the diagnostic tools we can take active steps to treat patients with poor bone density," said Dr Tuffley.

Having witnessed the advances of the



Dr John Tuffley

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living a long and healthy lifestyle – by the time they come and see us they are keen to take advice on their bone health," she says.

Thanks to the increasing aged population and people's more sedentary lifestyle, medical professionals like Dr Tuffley and Mrs Baldwin fear the number of people needing scans and operations in the future will skyrocket. The osteoporosis rates in Australia are forecast to more than double by 2021.

Fortunately, Medicare assists with payments for bone density scans according to certain criteria, and as from April 2007, all patients over the age of 70 were eligible for a rebateable scan. This helps to identify people at risk of osteoporosis before they have a debilitating and life changing fracture. PH

By Lucy Ardern