

MEDIA RELEASE

Good vibrations: aging bones may benefit from a good shaking

Researchers at Griffith University are investigating a novel, low intensity intervention that they believe may help reduce hip fracture risk in the elderly.

While running and jumping are some of the best ways to maintain or improve bone strength and help prevent fractures, they aren't the safest activities for the frail, elderly or physically impaired.

Dr Belinda Beck, senior lecturer at Griffith University's School of Physiotherapy and Exercise Science, said there was some evidence that low intensity loading performed at a sufficiently high frequency may also improve bone mass.

She has recently received funding to test the effects of a whole body vibration device – a platform that participants stand on while it vibrates at up to 30 cycles per second.

"Bone generally responds to exercise that is high intensity but older people can't do that without the risk of hurting themselves. We need a stimulus that is effective on bone but does not cause damage."

Dr Beck said the device was originally designed to enhance muscle strength in athletes as the vibration forces muscles to contract more. It was also likely to help improve balance.

"Whole body vibration offers an opportunity to improve bone strength, muscle strength and balance – three of the known risk factors for hip fractures in the elderly."

The vibration device will be installed in a retirement village on the Gold Coast, providing easy access for women over 65 years of age who choose to participate in the study.

Osteoporosis-related fractures are most common in older women, particularly those with other risk factors such as low body weight, a history of low calcium intake, and little or no physical activity.

"This is a simple, low intensity alternative that is perfect for people who can't do more strenuous physical activity," Dr Beck said.

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Photographs are available on request.