

**Opinion piece
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**Bone and Joint Action Week 2015**

12–20 October is Bone and Joint Action Week. Various activities will be held to create awareness of disorders such as back pain, arthritis, osteoporosis, and of the effects of childhood obesity on the musculoskeletal system. The crucial aspects of awareness are prevention, management and treatment.

Bone and joint pain is very common. The pain often results from musculoskeletal conditions such as [arthritis](http://www.disabled-world.com/health/autoimmunediseases/arthritis/), traumatic injury, osteoporosis and childhood conditions. It may be controlled through lifestyle changes, management of risk factors and other preventive measures such as exercise.

**Exercising for strong bones and healthy joints**

Most people are aware that exercise has benefits such as reducing the risk of heart disease and strokes, and preventing obesity. However, they may not be aware that bone, just like muscle, is a living tissue that changes in response to the forces placed on it. When you exercise regularly, your bone adapts by building more cells and becoming denser.

Young people who exercise regularly usually achieve greater peak bone mass and people older than 20 can prevent bone loss through exercise. Exercise helps to maintain muscle strength, coordination and balance, which in return helps prevent falls and fractures (more so in older people).

**Getting started**

If you are not active, start by easing into exercise. Do not measure yourself against others and if you have a medical condition such as heart disease, or are over the age of 45 (if you are male) or 55 (if you are female), it is a good idea to see a doctor before starting a new exercise programme.

**What exercises do I need to do to keep my bones strong?**

There are many different types of exercise and all of them have health benefits, but there are two types of exercise that are best for building strong bones, namely strength training and weight bearing exercise.

* In strength training, resistance is added to movement in order to make the muscles work harder and become stronger. Strength training increases muscle mass but also puts stress on the bones and improve bone-building capacity.
* Weight-bearing exercises are any exercises/activities done in a standing position that work your bones and muscles against gravity (basically where you are carrying your own body weight). More stress is placed on bones, which makes them work harder. Activities include jogging, brisk walking, dancing, tennis and most team sports. The higher the intensity of the activity, the more stress is placed on bones and joints.

**How to avoid getting injured**

To keep your joints and bones safe during exercise, follow these tips:

* Spread your exercises over the week to avoid overloading your bones and joints.
* Avoid working beyond your range of motion and avoid extreme positions such as deep squats.
* Keep exercising the core muscles to keep the spine protected. This is good for alignment, which keeps the bones healthy because the muscles are balanced throughout the body.
* Consider working with a personal trainer or biokineticist to make sure you are doing the exercises correctly, since doing them incorrectly can lead to injuries.

Finally, although exercise has been shown to have a bone-building effect, it is just one element of a total programme to prevent bone loss. Exercise can help you to:

* maintain bone density as you get older,
* lessen joint pain, and
* keep off the extra weight that puts more stress on joints.

By Licinda Pienaar, Manager and Biokineticist at the Institute for Sports Research at the University of Pretoria.