



Anorexia Nervosa and Bone Health

Protecting Bone Health

Bone health is an important part of your general health. When the structure of bone becomes weaker and less dense there is an increased risk of breaking. This is osteoporosis. It can lead to a higher risk of a bone breaking from a minor incident (such as a bump, fall or trip). Early diagnosis and management of osteoporosis can help protect bone health and reduce the risk of breaking a bone.

Anorexia Nervosa and Bone Health

The onset of anorexia mainly occurs during the teen years which is also an important time for bone development and building bone mass (with the peak bone mass normally reached by mid-twenties). People who have anorexia nervosa (or have suffered from it in the past) are at higher risk of having poor bone health. There are several reasons for this:

Hormones

The hormone estrogen is very important for bone growth, particularly in girls going through puberty. Low body weight causes the body to stop (or drastically reduce) estrogen production resulting in menstrual periods often stopping. This greatly impacts on bone growth and strength. Individuals with anorexia often produce excessive amounts of the hormone cortisol which is known to trigger bone loss. Levels of other growth-related hormones may also fall because of weight loss during anorexia nervosa, with negative effects on bone health. Low hormone levels (including low testosterone) also affect the bone health of men and boys with anorexia nervosa.

Low body weight

Body weight has a direct effect on bone strength, and research has shown people with very low body weight are at increased risk of osteoporosis.

Poor nutrition

Bones require adequate calcium and vitamin D to grow and remain healthy. Protein is also important for muscle health. People with anorexia are unlikely to obtain adequate calcium, vitamin D, protein and other important nutrients from the diet. This can also have a negative impact on bone growth and health.

Investigating Bone Health

People with anorexia nervosa should have their bone health investigated and monitored. Your doctor may refer you for a bone density scan to help assess your bone health. As anorexia commonly occurs in younger people it is important to protect your bone health into the future. Anorexia nervosa can have a major impact on the ability of the skeleton to achieve its peak bone mass and optimal strength and this can lead to an increase in fracture risk and osteoporosis later in life. This is why it is important to take action to protect bone health for people with anorexia or people with a past history of anorexia.

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Other Common Risk Factors

Review other common risk factors for osteoporosis. If any risk factors apply to you – discuss these with your doctor.

| Personal History | Medical Conditions | Medications |
|---------------------------------------------------|-----------------------------------------|---------------------------------------|
| Family history of osteoporosis (parent/sibling) | Coeliac disease | Certain treatment for breast cancer |
| Previous fracture (from minor bump or fall) | Overactive thyroid or parathyroid | Certain treatment for prostate cancer |
| Loss of height (3 cm or more) | Rheumatoid arthritis | Glucocorticoids (steroids) |
| Smoking/Excessive alcohol | Early menopause/Low testosterone | Anti-epilepsy treatment |
| Inadequate calcium, vitamin D or lack of exercise | Chronic kidney disease or liver disease | |
| | Diabetes | |

Calcium. Vitamin D. Exercise

Take simple steps to help support your bone health.

| Focus On | Recommended |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Calcium | <ul style="list-style-type: none"> • 1,000 mg per day from the diet • Increasing to 1,300 mg for women over 50 years and men over 70 years • If dietary intake is low a supplement may be required |
| Vitamin D | <ul style="list-style-type: none"> • Limited sun exposure – in summer a few minutes per day, in winter slightly longer • Avoid UV index above 3 • If vitamin D deficiency is confirmed by your doctor a supplement may be required |
| Exercise | <ul style="list-style-type: none"> • Specific mix of weight bearing, resistance training and balance exercises |

For more information about anorexia nervosa please visit **Butterfly Foundation** www.butterfly.org.au

For more information



Call our national toll-free number

1800 242 141



Visit our website

healthybonesaustralia.org.au



Talk to your doctor

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