

Pregnancy 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.

Vitamin D and Pregnancy

During pregnancy, the body adapts naturally to cope with the requirements of the growing baby. If you have normal levels of vitamin D during your pregnancy, you will be able to provide the right amount for your own health, and for your baby's needs. If your vitamin D levels are low during pregnancy, your baby is also likely to be vitamin D deficient. Research has shown that having low vitamin D in pregnancy, infants, children and adolescents can be associated with a wide range of health problems. Therefore adequate vitamin D is an important focus during pregnancy and early childhood.

Vitamin D plays an essential role in improving the absorption of calcium (from the intestine) to aid growth and maintenance of a strong skeleton. Vitamin D is also important for muscle strength, and helps to control calcium levels in the blood which are essential for the proper functioning of the body's nervous and immune systems.

Sunshine is the main source of vitamin D for pregnant women and when vitamin D levels are low a supplement may be required. Your doctor can test your vitamin D levels with a blood test to determine your vitamin D level. Action may be taken to improve vitamin D levels if they are found to be low.

Pregnancy Associated Osteoporosis

Pregnancy associated osteoporosis (also called *transient* osteoporosis in pregnancy) is a rare condition. The cause is unclear and woman affected can break a bone easily during pregnancy or in the weeks following the birth. These breaks normally occur in the spine and sometimes the hip. This can be painful and debilitating at the time – however patients do heal and pregnancy related osteoporosis is short-lived and most women do not have similar issues in later pregnancies.

Causes: there is uncertainty as to why some women are more susceptible to this rare osteoporosis condition during pregnancy. More research is needed to understand the condition. Some women may already have low bone density before they become pregnant (as a result of another disease, medication or lifestyle issues) and the increase in bone metabolism that occur naturally in pregnancy adds stress to the skeleton. Pregnancy also places more demands on the skeleton's 'calcium bank'. A healthy diet with adequate calcium and vitamin D levels will normally meet this demand. However in a small proportion of women, inadequate calcium and low vitamin D may lead to a weakening of the bones during pregnancy. Also, some women may need heparin injections during their pregnancy to treat a serious condition called anti-phospholipid syndrome. Research has shown heparin is associated with some pregnancy related osteoporosis. However the risks to the survival of the baby if heparin is not taken are far higher than the risks of osteoporosis during pregnancy. If you have been taking heparin prior to or during your pregnancy, you should discuss this with your doctor.

Diagnosis: Pregnancy related osteoporosis is not easily diagnosed and typically is not diagnosed until after the baby is born. This is because osteoporosis is not suspected during pregnancy and may only be investigated after a fracture occurs. Most fractures in pregnancy associated osteoporosis, occur during or soon after the birth. Symptoms, such as serious back, are also quite common during pregnancy for other reasons, so your doctor

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may not suspect a fracture caused by osteoporosis. Also X-rays and bone scans routinely used to diagnose osteoporosis are usually avoided during pregnancy. Even after the baby is born, it may take some time to be diagnosed as the pain associated with fracture may also be mistaken for post-pregnancy and labour aches. If osteoporosis is suspected after giving birth, a bone density scan and X-ray may be conducted to check bone strength and detect any broken bones.

Talk to your doctor: If you experience unexplained and serious pain during or after pregnancy your bone health may need to be investigated. It is important to speak with your doctor.

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
Previous fracture (from minor bump or fall)	Coeliac disease	Certain treatment for breast cancer
Family history of osteoporosis (parent/sibling)	Overactive thyroid or parathyroid	Glucocorticoids (steroids)
Loss of height (3 cm or more)	Rheumatoid arthritis	Anti-epilepsy treatment
Smoking/Excessive alcohol	Early menopause/Low testosterone	
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 diabetes please visit **Jean Hailes Foundation** www.jeanhailes.org.au

For more information



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