



Vitamin D helps to maintain your muscle and bone strength and helps your body to absorb calcium from food.

In pregnancy, vitamin D also helps to develop your baby's bones. If you have a vitamin D deficiency it can affect the amount of calcium your baby has in their bones. In severe deficiency this can cause a bone deformity called rickets.

## How do we get vitamin D

### From the sun

Most of our vitamin D is made in our skin by the sun's ultraviolet rays. You are at risk of a vitamin D deficiency if you have too little sunlight exposure. This may happen if you spend a lot of time indoors or cover most of your skin with clothing.

It is important to get enough sunlight to produce vitamin D without increasing your risk of skin cancer. In summer, many fair skinned people make enough vitamin D from having their hands, arms and face (or equivalent area of skin) in the sun for a few minutes each day during normal, day to day outdoor activities. If you are fair skinned it is best to avoid the sun between 11am and 3pm in summer unless you are wearing sun protection.

In winter, in Victoria, you will need two to three hours of sunlight each week.

People with darker skin need more sunlight and those with very black skin may need three to six times as much sunlight as fair skinned people.

### From food

Vitamin D is present in a small number of foods and for the average person food will supply about 10 percent of the amount they need. It is present in oily fish such as mackerel and sardines and eggs and in Australia it is also added in small amounts to margarine and some brands of milk. Although liver and cod liver oil contain vitamin D, they are not recommended in pregnancy as they also contain too much vitamin A for pregnant women.

## Calcium

Calcium is also needed for bone health in mother and baby. Dairy foods are the richest sources, with two to three serves recommended per day (cheese, milk, yoghurt or calcium-supplemented soy, almond or rice milk). If you are unable to eat sufficient amounts of these food a calcium supplement may be recommended.

## Testing and treatment for vitamin D deficiency

### Mother

Pregnant women at risk of vitamin D deficiency will be advised to take a vitamin D supplement and their vitamin D level will be measured with a blood test early in pregnancy. If the blood test shows that the level of vitamin D is too low, you will be prescribed a vitamin D supplement by your doctor or midwife. The amount of vitamin D supplement needed may change depending on what your blood level is. Sometimes higher doses are needed at first to build your level up. There is no danger of over dose with these amounts.

Oste-Vit D and Ostelin are the common vitamin D supplements. Both contain the same amount of vitamin D and are suitable for people following a Halal diet.

### Baby

If a mother is vitamin D deficient, breast milk is not a good source of vitamin D, so babies need to be given extra vitamin D until they are weaned. Pentavite, which is a liquid multivitamin mixture available from pharmacies, is suitable for this. The dosage is 0.45ml per day. A midwife can show you how to give Pentavite to your baby before you leave the hospital.

## After the pregnancy

Women who have had low vitamin D levels during pregnancy are encouraged to continue to take vitamin D supplements after pregnancy to help protect against health problems such as osteoporosis (brittle bones). If you stop taking supplements you should have your level checked from time to time to see if it has stayed in the normal range.

## For more information

### Women's Welcome Centre (Victoria only)

Royal Women's Hospital

Open 9.00am to 5.00pm, Monday to Friday

T: (03) 8345 3037 or 1800 442 007 (rural callers)

### Eat for Health

See the Australian Dietary Guidelines website for advice and resources about healthy eating

W: [www.eatforhealth.gov.au](http://www.eatforhealth.gov.au)

Visit the Women's website for more information on nutrition and pregnancy.

W: [www.thewomens.org.au/health-information/pregnancy-and-birth/a-healthy-pregnancy/food-nutrition-in-pregnancy](http://www.thewomens.org.au/health-information/pregnancy-and-birth/a-healthy-pregnancy/food-nutrition-in-pregnancy)