

Fact Sheet

Vitamin D - Information for pregnant women

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Vitamin D during pregnancy

Vitamin D is a very important vitamin for both mother and baby. You need to make sure your vitamin D levels are normal during pregnancy and while breast-feeding so that you and your baby are healthy.

Low levels of vitamin D are common in pregnant women. This leaflet explains to you how to make sure your vitamin D levels are normal.

What is vitamin D?

It is a special vitamin that is needed in every cell in the body for the body to function properly. Low levels of vitamin D in children and adults have been linked to the development of many illnesses. It is therefore important to make sure your vitamin D level is normal.

Why is vitamin D important?

Vitamin D is needed to help us absorb calcium from food to keep our bones and teeth strong.

- Without enough Vitamin D, children and adults can develop weak bones; in children the bones may even bend out of shape.
- Other health problems can also occur.
- A normal level of vitamin D is needed to get calcium from food into the body. Calcium is vital in building strong bones and teeth.
- A newborn baby's vitamin D level is the same as its mother. So, if mother has a low vitamin D level during pregnancy her baby will be born with a low vitamin D level.
- There is very little vitamin D in breast milk.
- If a baby has vitamin D deficiency, they will remain vitamin D deficient if breast fed.

What's the best way to make sure my family & I get enough vitamin D?

- 90% of vitamin D is made from sunlight exposure directly onto skin. Sun block stops vitamin D being made.
- Only 10% of vitamin D comes from food.

Do I need a blood test?

A blood test may be done as part of your antenatal assessment at the hospital.

What can I do if I know I am low in Vitamin D? If you have a low vitamin D level, you will be advised to take extra vitamin D during your pregnancy and while you are breast feeding. The amount of extra vitamin D you will need depends on how deficient in vitamin D you are. After treatment of vitamin D deficiency, another blood test will be done to make sure your level has become normal.

Can taking extra Vitamin D harm my baby or me? No. There is no evidence to show that taking supplements in the quantities that you will be given harms you or your baby, BUT there is lots of evidence that babies who are vitamin deficient can develop serious medical conditions.

What can I do to prevent having low vitamin D levels?

Low vitamin D levels are seen in women who do not get enough sun. To prevent getting low vitamin D levels, you need to get enough sun or take a vitamin D supplement. You should also ask your doctor if your baby also needs extra vitamin D.

What about the risk of skin cancer?

Skin cancer due to sun exposure is a concern in Australia, however following advice in the above table should not put you at undue risk. This is one reason why some people think it is a good idea for all women to take a vitamin D supplement.

How often do I need to take the supplements?

Because you use vitamin D every day, you should take vitamin D supplementation every day while pregnant and breast-feeding.

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What if I wear clothing that covers most of my body for cultural/ religious reasons?

This often makes it hard to get enough sun to make vitamin D. It is therefore recommended that you take extra vitamin D. This will benefit both you and your baby.

What are the main long-term complications of vitamin D deficiency?

Women who have a low vitamin D level are at risk of having soft bones that are painful and bones that break easily. Muscles can also be weak and can make you feel tired.

Children with a low vitamin D level can develop Rickets. This can be very serious because the bones don't form normally. Your child can be short and the legs bowed. Sometimes the calcium level in the blood can be very low and this can lead to the child having fits.

Does my baby need vitamin D supplementation?

Supplementation may be required. Discuss this with your doctor or midwife.

For further information talk to your local doctor, midwife, or obstetrician

The table below gives an estimate of how long you need to expose your skin to sun per day to make enough vitamin D.

10am or 3pm	Summer	Spring /Autumn	Winter
Fair skin	10mins	20mins	30mins
Dark skin	30mins	60mins	90mins
Area exposed	Face, arms, and hands	Face, arms, and hands	Face, arms & hands

Infant feeding and vitamin D.

Breast milk is the best food for your baby, being perfectly balanced for nutrition and containing substances that reduce infection in your baby. However, like most foods, breast milk doesn't contain much Vitamin D. Infant formula has some added Vitamin D. However, once your baby starts to eat family foods at around 6 months old and therefore drink less formula, she/he may not receive enough Vitamin D.

It is recommended that all babies up to 12 months old should be given a small dose (400 international units) of Vitamin D every day to make sure they get enough. Some children may need to continue this even after 12 months.

Safe sun exposure for adults

All adults, including pregnant women, should try to get some direct sunshine (not from behind glass) on their arms or legs (about 15% of the body surface) on most days. This will make about 1000 international units of Vitamin D (this varies between climates).

During summer for adults:

- the best time is before 10am or after 3pm
- fair-skinned women - 7 minutes; wear sunscreen, hat,

sunglasses but have bare arms or legs

- dark-skinned women - 30 minutes; hat/sunglasses

recommended but can have short periods without sunscreen unless near highly reflective surfaces such as water or snow

During winter for adults:

- the best time is the middle of the day
- fair-skinned women - 20 minutes; wear sunscreen,

hat, sunglasses but have bare arms or legs

- Dark-skinned women - 60 minutes; sun-protection not

usually needed unless

Safe sun exposure for babies

No-one knows how much sunshine is ideal for babies, but a few minutes each day is thought to be a good idea. Older children should be encouraged to play outside before and after preschool and school.

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During summer for infants / children:

- fair-skinned baby/child: avoid sunburn; full sun protection - sunscreen, hat, clothing, shade and sunglasses - is recommended

- dark-skinned baby / child: avoid sunburn. intermittent sun exposure without sunscreen can be tolerated, but hat and sunglasses still recommended

During winter for infants / children:

- fair-skinned baby / child: use sun protection especially

if outside for long periods or if near water or snow

- dark-skinned baby / child: sunscreen usually not needed in southern Australian states

Vitamin D supplementation for all women and babies

During Pregnancy:

All women are advised to take a small dose of Vitamin D daily, in addition to any other pregnancy vitamins:

- Women at lower risk for Vitamin D deficiency (Regular sunshine, fair skinned, not overweight) should take **1000 international units daily**.
- Women at higher risk for Vitamin D deficiency (don't get much sunshine, dark skin, overweight) should take:

* **2000 international units per day for 8 weeks then**

* **1000 international units per day for the rest of the pregnancy**

While Breastfeeding:

- Women at lower risk for Vitamin D deficiency – can **stop** the Vitamin D supplement
- Women at higher risk for Vitamin D deficiency – should continue with **1000 international units** daily and may need to take it in the long term (Please consult with your doctor)

Babies for First 12 months

- All babies should receive **400 international units**

daily for the first year of life. Some may need to continue throughout childhood. (Consult your doctor)

- When giving your baby Vitamin D, the dropper needs to be directed to either side of the baby's mouth and not directly to the back of the mouth.

Diet

Vitamin D isn't present in many foods - the best sources are listed below. You should try and have some of these in your diet:

- Fatty fish e.g., salmon, tuna, and mackerel
- Fish oils - these are among the best sources.
- Beef liver, cheese and egg yolks - contain some Vitamin D

- All margarines and some milk products have added Vitamin D.

- For Vitamin D to work well in keeping your bones and teeth strong, you also need to eat foods that contain calcium (dairy foods and tinned salmon are great for this). Most people get plenty in their diet but if you are vegan or don't

Vitamin D supplements for Infants

There are many supplements available. Your doctor will be best to advise you which supplement to take.



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the dropper needs to be directed to
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the back of the mouth.***

References

WSLHD – Vitamin D – Information for pregnant women, mothers, and babies. V8: (2017)

We welcome further feedback on this brochure as a way on continually improving our service.

Send your feedback to:

wslhd-wmdwnhwebsite@health.nsw.gov.au

