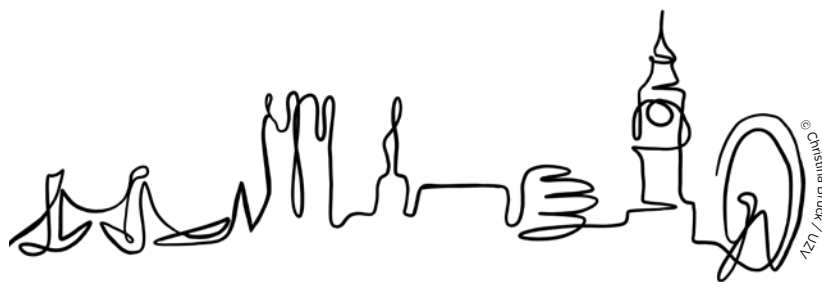


Vitamins



The **micronutrients** are essential for various **metabolic processes**. They include **minerals, fatty acids, amino acids, and vitamins**. Most vitamins are made up of **groups of related molecules called vitamers**.

Vitamin E has eight vitamers, including four tocopherols. The A vitamers include retinol, and provitamin carotenoids such as betacarotene. Vitamins are involved in a variety of biochemical functions. Vitamin A is a regulator of cell and tissue growth. The skin produces provitamin D₃

with the help of sunlight. B vitamins, especially folic acid (B₉), are essential during periods of cell growth during **infancy** and **pregnancy** and help prevent **neural tube defects** in babies. Vitamin K, with two natural vitamers, is involved in **blood clotting** and should be **monitored** in patients taking anticoagulants.

Male pharmacy customer: Hello, do you speak English?
PTA: Hello. Yes, a little. What can I do for you?

Last week my doctor did a **complete blood count** as she suspected that I was suffering from some kind of **deficiency**. Anyway, I've just come from her with a recommendation for vitamin D₃. Apparently, the laboratory **established** vitamin D deficiency somewhere between **severe** deficiency, <12 ng/ml and "normal" deficiency of <30 ng/ml.

That does sound quite low! What else did she recommend?

Well she said I should get out in the fresh air more often, at least 30 minutes a few times a week to take in some sunshine.

I see here she added a note to remind you to take it regularly over the next eight weeks.

Yes, she said that I would need to go for regular blood and urine tests to determine the calcium concentration in the blood serum and the kidneys, something called hypercalcaemia, I believe.

Yes, you have to be careful as taking too much vitamin D can lead to things like cardiac arrhythmia, nausea, vomiting, and loss of consciousness. Those are only some of the acute consequences!

There are others?

The chronic consequences include increased **urinary urgency**, increased thirst and lack of appetite, **kidney calcification**, and kidney stones.

Are you sure I should take it after all these possible side effects?

Of course! I didn't mean to worry you. Taken correctly and under medical supervision, you should have no problems! The effects of Vitamin D deficiency are much worse as they include everything from depression to MS, and bone loss!

Good to know.

Did your doctor tell you about foods that contain vitamin D?

No, I don't think she did. Can you recommend any?

Certainly! Cod liver oil, oily fish like salmon, orange juice and dairy and plant milks fortified with vitamin D, sardines and beef liver.

I'll pass on the last one! But the others sound good to me! Thank you for your help, goodbye.

Bye, bye! ■

*Catherine Croghan,
Lecturer in English and
native speaker*

VOCABULARY	
micronutrients	Mikronährstoffe
metabolic processes	Stoffwechselfvorgänge
vitamers	verschiedene Stoffe einer Gruppe mit Vitamincharakter
infancy	Kleinkindalter
pregnancy	Schwangerschaft
neural tube defects	Neuralrohrdefekte
blood clotting	Blutgerinnung
monitored	überwacht
complete blood count	großes Blutbild
deficiency	Mangel
established	festgestellt
severe	schwerwiegend
cardiac arrhythmia	Herzrhythmusstörung
nausea	Übelkeit
vomiting	Erbrechen
loss of consciousness	Bewusstseinsverlust
urinary urgency	Harndrang
kidney calcification	Nierenkalkeinlagerung
cod liver oil	Dorschlebertran
salmon	Lachs
dairy	Molkereiprodukte
fortified	angereichert
beef liver	Rinderleber