

Vitamins for CF Children

Fat Soluble Vitamins

Vitamins A, D, E and K are absorbed utilising fat. Children with CF may develop deficiencies in vitamins due to a number of factors including:

- Fat malabsorption and inadequate bile salts
- Increased requirements
- Limited intake from diet
- Inadequate dosing or adherence to enzymes or vitamin supplements
- Bowel resection
- CF related liver disease

Vitamins are essential for normal growth and function and to fight infection, and therefore vitamin supplements are required for CF children.

VitABDECK

VitABDECK is a CF-specific multivitamin that is generally prescribed for children with CF. Vitamin levels should be checked annually, or more frequently as determined by your CF care team. VitABDECK is usually taken once daily. Your child's CF care team will advise on your child's required vitamin supplementation, guided by your child's blood results.

Below is a general guide only.

- Children up to three years: half a capsule daily
- Children aged 3-10: one capsule daily
- Children 10 and over: two capsules daily



Administering Vitamins

For young children the VitABDECK capsule should be opened, and the required amount mixed with a small amount of apple or pear puree. VitABDECK has an unpleasant taste, puree can help mask this. If it is not tolerated this way, try mixing with a small amount of water and give orally via a medicine syringe.

Once your child is able to swallow capsules they can be taken like any other tablet. To optimise absorption, VitABDECK should be taken with enzymes and a fat containing food or drink. If VitABDECK is not well tolerated, separate supplements may be considered. This is something to discuss with your child's CF team.

The below table details each of the fat-soluble vitamins, their health benefits and food sources:

Vitamin	Benefit	Food Sources
Vitamin A	Supports immune function Anti-oxidant (reduces free radicals) Eye health - Night vision Keeps skin healthy	Liver Egg yolk Dairy products Green leafy & yellow vegetables
Vitamin D	Bone density Supports immune function Aids muscle strength	The major source of vitamin D is exposure to sunlight. It is also found in: Fortified milk & margarine Oily fish Egg yolk Liver
Vitamin E	Anti-oxidant (reduces free radicals) Prevents nerve & muscle breakdown Cognitive function Helps keep red blood cells healthy Supports immune function	Wholegrains (Wheat germ) Nuts Eggs Vegetable oils Fat of meat, poultry & fish
Vitamin K	Normal blood clotting Normal bone health	Green leafy vegetables Liver Soya beans Canola oils

Thank you to Jordan Brockett and Mylie McMahon, CF Dietitians, Perth Children's Hospital, for input into this factsheet.

Last reviewed August 2023.