

Vitamin Supplementation and Cystic Fibrosis

Who needs vitamin supplements?

All people with cystic fibrosis (CF) who are pancreatic insufficient, and some who are pancreatic sufficient, need to take fat soluble vitamins (vitamins A, D, E and K) to prevent deficiencies. This is due to maldigestion and malabsorption of nutrients, in particular fat, which means that the fat-soluble vitamins are less readily absorbed by the body.

What are fat soluble vitamins needed for?

- Vitamin A supports immune function, night eye sight and helps to keep skin healthy.
- Vitamin D is needed to optimise bone strength. It is also important for immune function, muscle strength and healthy skin.
- Vitamin E is an anti-oxidant. It protects the cells from free-radical damage.
- Vitamin K is needed for normal blood clotting and for bone health.

Which vitamin preparations are recommended?

In Queensland, the supplement most commonly used for children with CF is called **Vit ABDECK**. It comes in capsule form and needs to be taken once a day. The fat-soluble vitamins in Vit ABDECK are in water soluble form and are easy for people with CF to absorb. It also contains B vitamins, vitamin C and zinc.

Recommended Vit ABDECK dosage:

Infants 0-3 yrs: ½ capsule daily

Children 4-10 yrs: 1 capsule daily

>10 yrs: 2 capsules daily

Vitamin levels should be checked by a blood test every year. More frequent blood tests will be required if levels are abnormal. Additional tests will also be required if other supplements or alternative therapies are being used.

If Vit ABDECK is not well tolerated, separate supplements may be used. Your doctor or dietitian will discuss this with you. The following guide can assist with dosing:

0-18 months

- 0.45 mL Infant Pentavite daily
- 0.2 mL Micelle E daily
- ¼ Konakion twice a week

18 months to 4 years

- 1 Centrum Chewable daily OR 1 mL Infant Pentavite daily
- 0.4 mL Micelle E daily
- ½ Konakion twice a week

4 years and older

- 1 x 5000 IU Vitamin A capsule daily OR 2 Centrum Chewable daily
- 1 x 100 IU Vitamin E daily
- 1 Konakion twice a week

What are good dietary sources of fat-soluble vitamins?

- Vitamin A: liver, egg yolk, dairy products, green leafy and yellow vegetables.
- Vitamin D: main source is through sunlight. It is found in small amounts in fortified milk and margarine, oily fish, egg yolk and liver.
- Vitamin E: wheat germ, vegetable oils, nuts, eggs and the fat of meat, poultry and fish.
- Vitamin K: green leafy vegetables, liver, soybean and canola oils.

Things I can do to improve my vitamin levels:

1. _____

2. _____

For further information contact your Dietitian
