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.

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 years: ½ capsule daily
- Children 4-10 years: 1 capsule daily
- >10 years: 2 capsules daily

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
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. Some people may need extra vitamin or mineral supplements. Your doctor or dietitian will discuss this with you.

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.

What are good dietary sources of fat soluble vitamins?
- Vitamin A sources include liver, egg yolk, dairy products, green leafy and yellow vegetables.
- The main source of vitamin D is through sunlight. It is found in small amounts in fortified milk and margarine, oily fish, egg yolk and liver.
- Good sources of vitamin E include wheat germ, vegetable oils, nuts, eggs and the fat of meat, poultry and fish.
- Vitamin K sources include green leafy vegetables, liver, soybean and canola oils. Bacteria in the bowel also make vitamin K.

Things I can do to improve my vitamin levels:
1. _______________ _____________
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   _______________ _____________
2. _______________ _____________
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3. _______________ _____________
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For further information contact your Dietitian or Nutritionist:

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One capsule of Vit ABDECK contains 2500IU Vitamin A, 1250µg total retinol equivalents (RE), 440 IU vitamin D, 150 IU vitamin E and 150µg vitamin K. 1mL Infant Pentavite contains 1080 µg RE. 1 Centrum Chewable contains 450 µg RE. 1 x 5000 IU Vitamin A capsule contains 1500 µg RE. 1 Konakion contains 10mg Vitamin K. 1mL Micelle E contains 156 IU equivalents vitamin E.