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Vitamins and Minerals

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VITAMINS AND MINERALS

Function

Fat-soluble vitamins

- Fat-soluble vitamins A, D, E and K.
- While your body needs these vitamins every day to work properly, you do not need to eat foods containing them every day. This is because, if your body does not need these vitamins immediately, it stores them in your liver and fatty tissues for future use. These stores can build up so they are there when you need them. However, if you have much more than you need, fat-soluble vitamins can be harmful, therefore caution need to be considered when supplementing with these vitamins.
- Fat-soluble vitamins are found mainly in fatty foods such as animal fats including butter and lard, vegetable oils, dairy foods, liver and oily fish.

Water-soluble vitamins

- Water-soluble vitamins are not stored in the body, so you need to have them more frequently. Water-soluble vitamins are vitamin C, the B vitamins and folic acid.
- If you have more than you need, your body gets rid of them through urinating.
- Water-soluble vitamins are found in fruit, vegetables and grains. Unlike fat-soluble vitamins, they can be destroyed by heat or by being exposed to the air; also they can be lost in water used for cooking. This means that by cooking foods, especially boiling them, we lose many of these vitamins. The best way to keep as much of the water-soluble vitamins as possible is to steam or grill, rather than boil them.

Minerals

Minerals are necessary for three main reasons:

- Building strong bones and teeth
- Controlling body fluids inside and outside cells
- Turning the food you eat into energy

- Minerals are found in varying amounts in foods such as meat, cereals including cereal products such as bread, fish, milk and dairy foods, vegetables, fruit (especially dried fruit) and nuts.

Trace elements

- Trace elements are also essential nutrients that your body needs to work properly, but in much smaller amounts than vitamins and minerals.
- Trace elements are found in small amounts in a variety of foods such as meat, fish, cereals, milk and dairy foods, vegetables and nuts.

Sources and function of vitamins and minerals

See appendix A for a detailed table outlining the sources and function of the main vitamins and minerals groups

Dietetic tips on how to increase vitamins and minerals intake in diet.

- Aim to have 5 different portions of fruits and vegetables per day. A portion of fruit and vegetables (Approximately 40 calories) - 1 apple, orange, pear, nectarine, kiwi or small banana. 100g (4oz) sprouts, pepper, mixed vegetables (Frozen). 100g (4oz) strawberries, raspberries, cherries or grapes. 150g (6oz) carrots, turnip, swede, cabbage, spring greens, cauliflower or broccoli. Small bowl of salad. 2 tablespoons tinned/stewed fruit in natural or fruit juice, not syrup. 3-4 dried apricots, prunes, figs or apple rings, and 120ml (small glass) of unsweetened juice.
- Keep healthy snacks easily to hand (e.g. fresh fruit in a bowl, or fruit salad)
- When hungry snack on raw vegetables such as cucumber, celery or carrots.
- Add chopped, fresh or dried fruit onto your breakfast cereal.
- Use plenty of vegetables, and pulses while making soups, and try to put some extra vegetables beans or lentils in your casseroles and stews and less meat.
- Try to load up on freshly squeezed juices instead of a usual coffee, tea or cola.
- Try to have salad, vegetables and /or fruit with every meal.
- Stock up on frozen vegetables for easy cooking in the microwave or oven.
- Limit the intake of dried fruits; they are good source of vitamins and minerals but they are very high in sugar and calories.
- Keep on hand canned and frozen fruit, but always look at fruits that canned in natural or fruit juice; not syrup.
- Try some fruit desserts like unsweetened fruit crumbles or sugar free jelly with fruit chopped into it.

- Ensure that a 1/3 of your lunch and 1/3 of your dinner plate should be vegetables or salad.
- Take one vitamin and mineral supplement per day (consult your dietitian).