

Assignment07

Antioxidants

Antioxidants are a group of vitamins, minerals, carotenoids and polyphenols present in a variety of foods that significantly slow/prevent the oxidative process and so prevent or repair damage to your cells and improve immune function. They inhibit oxidation and can be used to counteract the deterioration of stored food, like using dipping an apple in orange juice, which has Vitamin C. That process is similar, but instead of preserving food, antioxidants protect your body from free radicals – which cause oxidation. If not protected, free radicals can lead to cell dysfunction, contribute to numerous health problems when older, a few examples being cancer and Alzheimer's.

Vitamin C

Vitamin C is another antioxidant, and it free attacks free radicals in body fluids, not fat tissue. Vitamin C is not a magical cure for the common cold but it does play an important role in fighting infection, and consuming extra Vitamin C does not do anything.

Vitamin D

- 1) Vitamin D helps almost every part of the body by promoting absorption of calcium and phosphorus, which is deposited in bones to keep them strong and prevent fractures, helps regulate cell growth and how much calcium is remaining in the blood and plays a role in immunity.
- 2) It is called the “sunshine vitamin” because when ultraviolet light (sunlight) hits your skin, Vitamin D is created.
- 3) If you have dark-coloured skin, you make less Vitamin D; and if you live in the northern half of the US during the cold months, the sun's energy isn't strong enough for your skin to make Vitamin D.

Calcium

1)

| Product | Servings / Day | Estimated Calcium / Serving (MG) | Calcium (MG) |
|------------------------------|----------------|----------------------------------|--------------|
| Milk (8oz.) | 1 | x 300 = | 300 |
| Yoghurt (6oz.) | 0.5 | x 300 = | 150 |
| Cheeze (1oz. Or 1 cubic in.) | 0.5 | x 300 = | 150 |
| Fortified foods or juices | 3 | x 80 - 1000 = | 1500 |
| Total | | + 250 mg | 2350 |

- 2) For children 4 – 8, and adults 19 – 50 years old, the RDA says 1000mg of calcium daily. For women > 51, and men > 70 years old, the RDA says 1200mg daily. For children and teens 9 – 18, the RDA says 1300mg daily. I think I am consuming enough calcium but I have grossly over-estimated my calcium for “fortified foods or juices”.

- 3) Calcium supplements are best absorbed in doses of 500mg or less.
- 4) The calcium supplements to avoid is the ones with dolomite, unrefined oyster shell or bonemeal without a USP symbol.
- 5) At around age 20, the bone building phase is complete but building peak bone-mass continues until early 30's. After age 30, bones slowly lose minerals that give them strength – a natural part of aging.

Sodium

- 1) 1 teaspoon of table salt contains 2,325mg of sodium.
- 2) That teaspoon covers a day's worth of sodium intake. $\frac{2}{3}$ of a teaspoon of table salt provides about 1500mg of sodium for adults > 50 years old.