

The Women's Health Research Program

Health Bulletin
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Update on vitamins A, C and E

Oxidative stress (the production of free radicals) may play a role in the development of cancer and cardiovascular disease. Hence many people take anti-oxidant supplements with the belief that they afford significant health benefits including protection against cancer and heart disease. However the production of free radicals is also part of the body's immune defence system. Thus whether taking antioxidants is good for your health has been questioned.

A recent robust systematic review indicates that contrary to popular belief, taking anti-oxidants may not really be a good thing to do. In fact taking antioxidants was found to be associated with *increased* mortality¹. The systematic analysis published in the Cochrane Library this year included 78 randomised clinical trials involving 296,707 participants who were randomised to treatment with antioxidant supplements (beta-carotene, vitamin A, vitamin E, and selenium) versus placebo or no intervention. Some of the trials involved healthy individuals and some involved people with specific medical conditions. The studies were of sufficient similarity that they could be combined.

The analysis demonstrated that antioxidant use slightly increased



mortality such that the people taking antioxidants were 1.03 times as likely to die versus the non-users. This increase in risk is very small. The real take home message is that there is no evidence of any benefit from antioxidant supplements.

The researchers undertook additional analyses to identify what factors predicted the small increase in mortality associated with anti-oxidant use. They found that the higher mortality was associated with beta-carotene and possibly vitamin E and vitamin A, but was not associated with vitamin C or selenium use.

The importance of good nutrition cannot be underscored, however, avoiding vitamin and mineral

deficiency is more beneficial than taking supplements on top of a normal, healthy diet.

1. Bjelakovic G, Nikolova D, Gluud LL, Simonetti RG, A GC. Antioxidant supplements for prevention of mortality in healthy participants and patients with various diseases. *Cochrane Database of Systematic Reviews*. 2012(3): Art. No.: CD007176. DOI: 10.1002/14651858.CD007176.pub2.

Hot flushes

...does exercise work?

One in four women will experience bothersome hot flushes and/or night sweats at menopause. Flushes/sweats disrupt sleep, which can lead to fatigue and interfere with daily activities. Although we know that oestrogen is a highly effective



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treatment for hot flushes, alternatives to oestrogen therapy are always being sought. It has been suggested that regular exercise will reduce hot flushes but is there evidence for this?

Various studies have been done comparing exercise to no treatment, exercise versus HRT and exercise versus yoga. Most of the studies have been small so that the findings are not absolutely conclusive. Overall exercise has not been found to be more effective for hot flushes than no treatment or yoga and HRT is clearly more effective than exercise. A large well designed study is still needed to clarify whether there is any benefit of exercise over not exercising for hot flushes.

...what about phytoestrogens?

Chemicals in plants with a phenol structure similar to oestrogen are known as *phyto (plant) oestrogens*. These compounds, found in a wide variety of edible plants, may have both oestrogen-

like and anti-oestrogen effects. Older population-based studies comparing women in Asia and Western countries suggested that eating a diet rich in phytoestrogens would reduce menopausal flushes and sweats and may protect against breast cancer, bone loss and cardiovascular disease. Consequently soy and other of phytoestrogen rich foods became popular and tablet formulations of concentrated isoflavones (a type of phytoestrogen) were heavily promoted.

Comprehensive reviews of well conducted studies have shown that increasing phytoestrogen intake with phytoestrogen rich food or with supplements has little/no effect on flushes/sweats or other menopausal symptoms. Whether phytoestrogens have favourable or unfavourable effects on the breast (in terms of altering breast cancer risk) remains unclear. There is some evidence that a diet high in phytoestrogens has favourable effects on blood fats and cholesterol.

Get involved in research

Antidepressants ruining your sex drive?

Are you a woman aged between 35 – 55 years, have been taking a stable dose of one of SSRIs (sertraline, citalopram, paroxetine, fluoxetine or fluvoxamine) or SNRIs (venlafaxine) for the past three months and are experiencing sexual difficulties and for which you would like to be treated.

If you would like more information, regarding this and other studies please visit our website: womenshealth.med.monash.edu or contact the Women's Health Research Program on 03 9903 0820 or by email on womens.health@monash.edu