

COMPLEMENTARY MEDICINES & CARDIOVASCULAR DISEASE

Complementary Medicines are described as a regimen for the prevention or alleviation of a disease or ailment, or for the maintenance of health. A significant point of difference between CMs and western medicine is that the use does not necessarily rely on the evidence of efficacy.

The increasing use of CMs in the community warrants an awareness of potential risk versus benefit, particularly when used in combination with western medicines. In cardiovascular disease states, this can be particularly significant, especially when Warfarin is involved.

Common examples of CMs are as follows:

FISH OIL

Fish oils contain omega-3-fatty acids such as EPA (Eicosapentaenoic Acid) and DHA (Docosahexanoic Acid). Some preparations may contain differing proportions of these fatty acids and others are designed to have a more concentrated amount of DHA & EPA per capsule. Even so, omega-3-fatty acids (also known as alpha linolenic acid) are known to have anti-inflammatory and anti-platelet activity – patients are therefore advised to use with caution and seek advice from a doctor, especially if already taking medication to 'thin the blood'. They may also be beneficial in lowering triglycerides levels in the blood. Fish oils can enhance the structural integrity of cell membranes and in this way, they have been promoted to have potentially beneficial effects on blood pressure.

Dietary intake of fish oils may be obtained from salmon, mackerel, lake trout, flounder and tuna: The source of fatty acids come from the intake of microalgae in their diet. Concerns have been raised about the potential heavy metal intake with some fish known as scavengers, and hence patients wanting to increase their dietary intake of omega-3-fatty acids are advised to discuss their options with a dietitian.

FLAXSEED OIL

Flaxseed oil contains omega-3, 6 & 9 fatty acids. Omega-3 and omega-6 fatty acids are considered essential fatty acids because the body cannot synthesise them. Flaxseed oil offers an improved balance on these two fatty acids as disproportionately higher ratios of omega-6 fatty acid (also known as alpha-linoleic acid) can negate the potential anti-inflammatory effects of omega-3 intake.

PLANT STEROLS

Plant sterols are also known as 'phytosterols'. They can be found in nuts, corn, rice and wood pulp. Some spreads contain phytosterols and are promoted as having potentially beneficial effects on patient lipid profiles when used instead of butter or margarine.

The main component of phytosterol is Sitosterol. The structure of Sitosterol is slightly different to cholesterol and therefore, any absorption from dietary intake is minimal. Sitosterols reduce intestinal absorption of dietary cholesterol, and may therefore

reduce circulating levels of the 'bad' low-density-lipoprotein (LDL) cholesterol only. Patients with a rare genetic disorder called homozygous sitosterolaemia should avoid fortified spreads and mayonnaise containing phytosterols.

FIBRE

Soluble fibre can help to improve the LDL-HDL lipid balance through increasing cholesterol elimination from the body. Additionally, diabetic patients may benefit from improved peak blood glucose levels associated with slower carbohydrate digestion/absorption. Examples of soluble fibre include oats, psyllium, guar gum and pectin – these should be given with sufficient fluids to exert their effect. Patients should separate their soluble fibre intake from any dose of lithium, digoxin or carbamazepine by about 2 hours to reduce interference with drug absorption.

Insoluble fibre does not provide this effect on cholesterol absorption hence, it's use is limited to enhancing bowel motility. Fibre is not appropriate treatment for constipation associated with physical obstruction. Patients are advised to discuss their options for fibre use with their doctor and pharmacist.

COENZYME Q10

Ubidecarenone (CoQ10) is a naturally occurring, fat-soluble antioxidant that is required for optimal cellular function as it is involved in intracellular energy production. It follows that more active tissues have an increased requirement for CoQ10. Statin medication used to lower cholesterol depletes the body of CoQ10 through it's mechanism of action, thus patients on high dose statin therapy may benefit from CoQ10 supplementation.

Other CMs commonly found in the community include vitamin B, vitamin E, evening primrose oil, garlic oil, folic acid, glucosamine, and supplements for calcium, magnesium, and vitamin D3. Patients should discuss the use of all supplements and complementary medicines with their doctor for individual advice about appropriateness of supplementation and dose. This is because patients may unknowingly duplicate treatment, counteract treatment or predispose themselves to risk of toxicity – all of which can be avoided with professional advice. This is pertinent to patients who are taking Warfarin, fluid tablets, calcium channel blockers and other blood pressure medicines, and/or who have other disease states such as osteoporosis, arthritis, diabetes or kidney disease.

Patients considering the use of a particular complementary medicine are strongly encouraged to talk to a trusted health care professional. Pharmacists are available for advice on potential benefits of use and information about interactions with other medications, however, patients should discuss all medication use (prescribed or otherwise) with their doctor.