General Dietary and Lifestyle Recommendations – Update March 2015.

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I recommend a long-term Mediterranean Diet, along with added nuts but low in added sugar and salt. This diet has been shown in recent large scale clinical trials to reduce the risk of heart attack, stroke and cardiovascular death, and along with regular exercise reduces weight and the risk of developing diabetes. The PREDIMED Trial (in 7500 people aged 55-80yrs) showed that a Mediterranean Diet with added olive oil or mixed nuts provided a 30% reduction in heart attack, stroke and death at 5 years compared with a traditional low-fat diet. It also reduced the development of diabetes by 30% and reduced atherosclerotic plaque volume. (Estruch et al. New Eng J Med 2013). Palm and coconut oils are high in dangerous saturated fats and are associated with an epidemic rate of heart attack in Fiji where they are frequently used. The Lyon Diet Heart Study showed in people with previous heart attack that a Med diet and added fish oil reduced death/heart attack by 72% (de Lorgeril et al Lancet 1994).

This diet includes:

- Replacing most red meat with fish and poultry; (particularly avoid processed or cured meats)
- Eat two servings of vegetables daily, and legumes three times a week; eat three servings of fruit every day (fresh rather than canned and organic produce preferred)
- Add olive oil to food and vegetables; eat pasta, vegetable or rice flavoured with tomato, garlic, onion or leek twice a week
- If you have had a heart attack fish oils are recommended.
- Avoid palm and coconut oils, fried foods, butter, margarines, cream
- Eat 3 servings of whole grain bread, cereal, pasta, oats, bran or brown rice daily
- A small handful of nuts for snacks three times a week
- Optional: three glasses of wine per week (with your evening meal), if you are not overweight or have uncontrolled BP

Fad diets and food replacements may achieve short term weight reduction but cannot be sustained long-term (a rebound in weight occurs when they are stopped) and do not reduce heart attack or death. High protein diets have been shown to increase death and cancer rates in persons <65 years. (NHANES III – Levine et al. Cell Metab 2014) 15 years of follow-up of the NHANES study (Quanhe et al. JAMA Int Med 2014) showed a 30% increase in cardiac death in persons drinking one sugary drink per day, and a fourfold increase in those who consumed one third of their calories in added sugar. High alcohol consumption is associated with an increased risk of mouth, throat, larynx, oesophagus, colon, rectum, liver, pancreatic and breast cancers. Aspartame containing diet sodas are associated with increased CV events and death (Vyas et al, ACC 2014). Whole grains and lower mortality. Wu et al JAMA Int Med 2015. Sun et al Arch Int Med 2010

The diet should be low in added sugar and refined carbohydrates:

- Avoid sweetened or diet soda drinks, concentrated fruit juice, sweetened tea and coffee (Stevia allowed) (one can of beer or soft drink = 10 teaspoons of sugar).
- Avoid sweets, candies, sports/energy drinks
- Avoid pastries, white bread, white rice and refined cereals; if overweight limit intake of potato
- Moderate amounts of non-sweetened dairy foods and eggs are allowed

Drink more water – including 2 glasses after waking, 1 before each meal and 1 before going to bed. Restrict salt intake (particularly in people with high blood pressure or heart failure).

<u>For overweight persons</u> (waist circumference >94cm men; >90cm asian men; >80cm women) who are not diabetics requiring medication:

- I recommend the 5:2 diet intermittent fasting (<600 calories/day men; <500 calories/day women) on two non-consecutive days per week; on the other 5 days eat a healthy diet as above
- Avoid high protein diets in persons<65yrs (which increase cancer and death rates NHANES III Levine et al. Cell Metab 2014), but older people (>65 years) should not restrict their protein intake.

Australian data shows that physical inactivity is more important as a risk for heart attack than other risk factors, including overweight, particularly in middle aged people (Brown et al. Br J Sports Med 2014). Just five to 10 minutes of daily running, even performed at very slow speeds, can significantly lower an individual's risk of all-cause and cardiovascular mortality. (Lee et al JACC, 2014)

Increase physical activity:

- Running (even at a low pace for 1km) several times per week if you can do so comfortably (If I have given you permission to do so)
- Or other regular exercise at least 3 days a week brisk walking, cycling, swimming or equivalent, and more intense strength training if possible
- Walk instead of driving whenever you can; take the stairs instead of the lift; move as often as you can.

Chronic inflammation is a significant contributor to coronary artery disease, heart attack and stroke. Inflammatory gum disease, rheumatoid arthritis, psoriasis, kidney disease, poorly controlled diabetes, obesity; or habits like smoking, eating junk food, sedentary behaviour increase inflammation and can cause heart disease and trigger heart attack.

Reduce inflammation

- No smoking (Smokers should discuss counselling or medication (nicotine replacement, varenicline and bupropion) with your local doctor to assist with smoking cessation.
- Control or eliminate gum disease (dental hygiene regular brushing and flossing etc)
- Control chronic inflammatory conditions
- Control diabetes

Use methods to reduce stress and increase your confidence (chronic stress is associated with cortisol secretion which impairs sleep, causes blood sugar abnormalities, impairs the immune response, increases appetite & sugar craving and increases abdominal fat. It may also cause depression, anxiety, headaches, reduce libido, impair memory and reduce muscle mass and bone density). Sleeping less than 6 hours a night increases cortisol levels by 50%. Relaxing music lowers cortisol levels and meditation has been shown to reduce both cortisol levels and blood pressure. Abdominal fat converts testosterone into oestrogen, which promotes further abdominal fat accumulation in both sexes and hip fat in women. Sleeping in total darkness and without a recent meal promotes beneficial melatonin and growth hormone release. Twice a day transcendental meditation has been shown in a small study of persons with heart disease to reduce heart attack. (Circ Cardiovasc Qual Outcomes. 2012;5:750-758)

Reduce your stress hormone levels by:

- Getting enough sleep preferably 7-9 hours per night.
- Sleeping in total darkness and avoid eating, drinking alcohol or over-stimulation before sleeping.
- Listening to relaxing music, particularly before going to bed
- Indulge in pleasant conversation and enjoy good company; consider meditation, yoga or relaxation techniques.
- Exercise and sport also reduces stress

Sleep apnoea syndrome increases blood pressure and the risk of heart attack and cardiac rhythm disturbances.

Consider having a sleep study if you have symptoms of obstructive sleep apnoea (especially excessive daytime sleepiness)