

## **OBESITY AND THE METABOLIC SYNDROME – A GLOBAL WARNING**

By Benjamin Drewe

The global statistics for obesity and its rise each year are a huge wake-up call for all of us. Obesity has more than doubled since the 1970's in many countries and continues to expand without any apparent slow down. If the current trend continues then obesity related conditions and risk factors, such as the metabolic syndrome will bring the already overburdened healthcare systems of the world to the breaking point. Malaysia has one of the highest obesity rates in Asia and is rapidly catching up with those countries with some of the highest obesity figures in the world i.e, USA, Mexico, Great Britain and Australia.

The Metabolic syndrome is the name given to a group of risk factors linked to being overweight which increases a person's chance of having heart disease, diabetes and stroke. The factors are:-

- Central obesity – an expanded waistline
- Higher than normal blood pressure
- Higher than normal fasting blood sugar
- A lower than normal HDL cholesterol
- Higher than normal triglycerides

*Reference: International Diabetes Federation (IDF 2005 criteria).*

A strong contributing factor is a non-active lifestyle. According to the IDF definition, a person has metabolic syndrome if they have 3 of the criteria's stated above including central obesity.

In 2007, Malaysia's Ministry of Health supported a study called Metabolic Syndrome Study of Malaysia (MSSM). The MSSM research objective was to study the prevalence of metabolic syndrome in the Malaysian population. Early results indicate that in some Malaysian populations, as high as 36.5% of adult male and 50.5% of adult female Malaysian population have metabolic syndrome!

Indeed on the 10 April 2010, our Health Minister Datuk Seri Liow Tiong Lai launched the Malaysian Council for Obesity Prevention (MCOP) as 2 out of every 5 Malaysian adults is either overweight or obese. There are more individuals with weight gain issues living sedentary lifestyles. These lifestyles are brought on by urbanization and economic development that allows us to live less physically demanding daily life and changes in dietary habits, particularly excess sweet foods and drinks and the availability of 24-hour eating outlets.

From a medical perspective, experts have narrowed the increase in metabolic syndrome to 2 factors – insulin resistance and central obesity.

Insulin is a hormone produced by our pancreas. Our body uses insulin to convert glucose into energy at our muscle, fat and liver cells. Insulin resistance happens when our cells become less sensitive to insulin and thus do not use the insulin circulating near it. In response to this, our pancreas senses more glucose in our bloodstream and starts

producing even more insulin that creates a cycle that leads to hyperinsulinaemia. Eventually, the pancreas cells wear down as it cannot cope with the demand and no longer produce enough insulin. This leads to type-2 Diabetes. People with insulin resistance have high levels of glucose and insulin in their blood at the same time.

From a nutritional perspective the cause of obesity and type-2 diabetes is linked, being excess consumption of refined sugars, and the wrong fats and oils in our diet, together with lack of exercise. As individuals, we can make everyday choices to change our lifestyle and food habits to reduce our own risk of developing metabolic syndrome and therefore reduce weight-related, lifestyle diseases such as type-2 diabetes and heart disease.

We can start by:-

1. Greatly reducing our intake of simple and refined carbohydrates, such as white rice, noodles, bread, cakes, sweets, condensed milk etc. By using the glycemic load as a guide, a better understanding on how certain foods affect blood sugar can be found. Complex carbohydrates come from vegetables such as broccoli, cauliflower and green leafy vegetables, legumes and whole grains i.e. brown rice.
2. Avoid heat damaged processed polyunsaturated vegetable oils in our cooking and replace with virgin coconut oil and olive oil.
3. Exercise of about 30 minutes a day. Exercise and physical activity increases our metabolism and gives us a healthier body.

Virgin Coconut Oil (VCO) has been the main cooking oil throughout the tropics for thousands of years and is lately making a comeback in the food and health industry as a result of medical doctors recommending it for a range of health problems. VCO is composed of more than 65% medium chain fatty acids (MCFAs). MCFAs are smaller molecules therefore easily digested and used by our body to produce energy similar to carbohydrates (but with no effect on insulin) and are found to raise metabolism and the rate at which our bodies burn energy for fuel and thus assist in weight management.

On the other hand, polyunsaturated processed vegetable oils used in our cooking are primarily composed of long chain fatty acids (LCFAs) that require a complex route of digestion. This complex route involves cholesterol to help it move through the blood stream and LCFAs are preferentially stored by our body as fat until the time our body needs it e.g. during starvation periods.

Virgin Olive Oil (VOO) is another good alternative to replace processed vegetable oils. However, we need to be aware that VOO is heat sensitive and its nutrients are intact only if used as salad or pasta dressing or cooking with low heat. Thus, Virgin Coconut Oil (which is not heat sensitive) is more suitable for Asian cooking styles such as stir-frying or for simmering.

Central obesity and insulin resistance can be reduced with right food choices and at least 30 minutes exercise in a day.

This article is courtesy of Asia Botanicals Sdn Bhd. Benjamin Drewe is an Australian Medical Herbalist living in Southeast Asia for more than 20 years. He can be contacted at [ben@rainforestherbs.com](mailto:ben@rainforestherbs.com) or on 03-7847 1662.