

## Metabolic Syndrome

### What is *Metabolic Syndrome*?

Metabolic Syndrome is a cluster of metabolic abnormalities that have been found to be associated with a risk of diabetes, heart disease and stroke greater than that of its individual components. Given that this syndrome is highly correlated to diet and lifestyle choices, it is not surprising that it is mainly a disease of industrialised nations, with an estimated 20-30% of those populations suffering from this condition.

Increasing in frequency with age, metabolic syndrome affects 50-75 million people in the US alone. Clearly, this syndrome represents one of the most important imbalances in clinical care today. Often used synonymously with insulin resistance, metabolic syndrome encompasses more than just high blood sugar.

### How do I know if I have *Metabolic Syndrome*?

According to the International Diabetes Federation definition, for a person to be defined as having the metabolic syndrome they must have:

- **Central obesity** (defined as waist circumference of  $\geq 94$ cm for European men and  $\geq 80$ cm for European women, with ethnicity specific values for other groups)

**Plus** any **two** of the following factors:

- **Raised serum triglyceride** levels ( $\geq 1.7$  mmol/L)
- **Reduced serum HDL-cholesterol** ( $\leq 1.03$ mmol/L in males and  $\leq 1.29$ mmol/L in females),
- **Raised blood pressure** (systolic pressure  $\geq 130$ mmHg or diastolic  $\geq 85$ mmHg) or treatment of previously diagnosed hypertension
- **Impaired fasting glucose** or previously diagnosed type 2 diabetes

### What are the risk factors in developing *Metabolic Syndrome*?

- Sedentary lifestyle
- Diet high in refined carbohydrates
- High levels of stress
- Inflammation
- Adults who continue to gain 2.26 kg or more per year raise their risk by up to 45%
- Post-menopause
- Smoking

## What can I do to treat / prevent *Metabolic Syndrome*?

