

# The Metabolic Types

Metabolic Typing is based on the observation that there are two primary systems in the human body, the Oxidative and the Autonomic, that govern the generation and regulation of energy. Each of us has both systems operating at all times; but one system *or* the other is believed to be dominant in any given individual's metabolism. Metabolic Typing determines which of these two systems is dominant, and, secondly, which of the two sub-types in the dominant system best characterizes the individual. Once this is known, the foods most appropriate to the individual's metabolism can then be recommended.

## The Oxidative System

The Oxidative system is the process that converts the macronutrients from our food (protein, carbohydrates and fat) into energy. This occurs in the mitochondria, the energy furnaces inside the cells of the body, through the biochemical processes known as the Krebs cycle and electron transport chain. Depending on the speed at which this conversion takes place, the individual is typed as either a Fast or Slow Oxidizer.

**Fast Oxidizers** rapidly convert foods into energy. More specifically, they tend to burn up carbohydrates too quickly, both simple carbohydrates (sugar and refined flour products) and complex carbohydrates (whole grains, fruits and vegetables). They require a steady supply of protein foods and good quality fats to slow this process down, along with plenty of the recommended vegetables (see the Group II diet sheet). Because they burn up foods too quickly, Fast Oxidizers tend to have an overly acid blood pH; the recommended foods and supplements help to alkalize their blood and bring it back into balance.

**Slow Oxidizers**, in contrast, slowly convert foods into energy. Specifically, they tend to burn up carbohydrates too slowly, whether they are simple carbohydrates (sugar and refined flour products) or complex carbohydrates (whole grains, fruits and vegetables). Slow Oxidizers need to emphasize complex carbohydrates (especially vegetables, fruits and whole grains) to speed up their oxidation rate, as well as lighter protein foods and good quality fats (see the Group I diet sheet). The protein foods eaten

should be of the lighter variety, such as chicken breast, white fish and low-fat dairy products. Because they tend to burn up foods too slowly, Slow Oxidizers tend to have an overly alkaline blood pH; the recommended foods and supplements will help to acidify their blood and bring it back into balance.

## The Autonomic System

The Autonomic System is responsible for the distribution and use of energy. It encompasses the activity of the autonomic nervous system, working in collaboration with the endocrine (or hormone) system. The autonomic nervous system is considered "involuntary", meaning that it generally operates outside our conscious control to regulate such vital bodily functions as breathing, circulation, digestion and the activity of the endocrine glands. Depending on which branch of the autonomic nervous system is most active, the individual will be typed either as a Sympathetic or a Parasympathetic Type.

**Sympathetic Types** are characterized by the more driven, pro-active, "fight or flight" branch of the autonomic nervous system. Like Slow Oxidizers, Sympathetics need to emphasize complex carbohydrates (vegetables, fruits and whole grains), with lighter protein foods and good quality fats, to restore balance with the parasympathetic branch, and to calm down their hyperactive nervous systems (see the Group I diet sheet). Because of their hyperactive nervous systems, Sympathetics tend to have an overly acid blood pH; the recommended foods and supplements help to alkalize their blood and bring it back into balance.

**Parasympathetic Types** are characterized by the more passive or relaxed branch of the autonomic nervous system. Like Fast Oxidizers, they should eat protein foods and good quality fats at every meal to tone up their nervous system, along with plenty of the recommended vegetables, and smaller amounts of whole grains, fruits, nuts and seeds (see the Group II diet sheet). Because of their under-active nervous system, Parasympathetics tend to have an overly alkaline blood pH; the recommended foods help to acidify their blood and bring it back into balance.