healthy eating and energy use

This information is designed to provide you with a guideline for healthy eating. If you have a special condition or are under medical supervision, you should discuss your eating plan with your doctor.

Frequency of Meals

It is important to eat regularly throughout the day. Regular eating usually involves 3 meals and 2-3 snacks a day. This often takes the form of breakfast, a morning snack, lunch, an afternoon snack, an evening meal, and an after-dinner snack if necessary.

Content of Meals

Food consumption over a whole day is more important than individual meal content. To ensure that your nutritional needs are met each day, you should aim to eat at least:

- 2 serves of fruit
- 5 serves of vegetables.
- 4 or more serves of bread, cereals, pasta/rice and potatoes.
- 3 serves of dairy products, e.g. milk, cheese, yoghurt.
- I serve of meat, poultry, fish, or alternatives—such as eggs and other non-meat alternatives (tofu).
- I serves of foods containing fats. It is essential to include some fat in your diet, so do not neglect this food group.
- You should also aim to drink at least 6-8 glasses of water per day.

Volume of Meals

When it comes to meals and snacks, it can be hard to know the correct food portions to eat. For a guide of portion sizes for the daily food intake recommended above, see our handout *Normal Healthy Eating*.

Keeping Your Body Fuelled for Function

Much of the energy in the human body comes from food, and vital organs require energy to function. Food for your body is like petrol for your car: your body cannot run without it!



Calories (energy input)

The amount of energy that your body obtains from eating depends on the number of calories in your food. Some people worry about the number of calories they consume and view all calories as harmful. This is not true. Your body needs a certain number of calories every day to function. The amount that you need depends upon your age, weight, height, exercise levels and muscle composition. However, a rough guide for recommended calorie intake would be between 1700 and 2500 calories a day. Your daily energy intake should be composed of 30% of energy from fats, 50-60% of energy from carbohydrates, and 10-20% from proteins.

How Energy is Used (Energy Output)

Metabolic work. Most of the energy you consume is used to support your metabolism, (e.g., regulating your heartbeat; breathing and circulation; the energy consumed by the central nervous system; the maintenance of body temperature; making new red blood cells and the synthesis of organic compounds such as hormones and enzymes). The body's hormone status also impacts on your body's energy needs. Stimulation of the body's sympathetic nervous system, e.g during stress, increases cellular activity and increases energy needs.

Physical activity. Energy is essential for physical activity. Every movement you make expends energy, whether it is an intense activity such as running or a small movement such as reaching for a glass of water. Even involuntary movement such as shivering, fidgeting and postural control expends energy.

Thermic effect of food. Digesting, absorbing and metabolising food also uses a small amount of energy.

Balancing energy input and output

For good health, the energy that you put into your body should be balanced by the energy that your body uses. In other words, you need to consume enough calories to balance the energy your metabolism uses, the energy your



body expels during physical activity and the energy your body uses to digest food. Weight gain cannot occur if energy input and energy output are balanced.

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