

HEALTHY EATING GUIDELINES:

You are what you eat. What you eat on a daily basis does not only affect your energy levels throughout the day and hence performance, but may also cause or prevent lifestyle diseases later in life. An improper diet can lead to a lack of energy, poor concentration, compromised immunity and obesity.

Prevention is always better than cure!

The risk of lifestyle associated diseases is closely associated with overweight and obesity and it is therefore important to maintain one's weight and body composition within healthy parameters. In order to prevent weight gain energy input should be equal to energy output. Achieving energy balance has become increasingly difficult. People have become more sedentary and our diets have dramatically changed due to the ease of consuming endless varieties of calorie rich foods. It is therefore recommended to follow a healthy, balanced diet and to regularly engage in physical activity, in general 4-5 times (30-45 minutes) a week.

The 3 main criteria of a healthy balanced diet:

- **When you eat meals (timing and frequency)**

Generally, a balanced diet consists of 3 meals and 1-2 snacks daily to help maintain optimal blood glucose and energy levels. Special attention should be given not to skip meals regularly, especially breakfast and not to develop a pattern of binge eating (daily fasting and feasting).

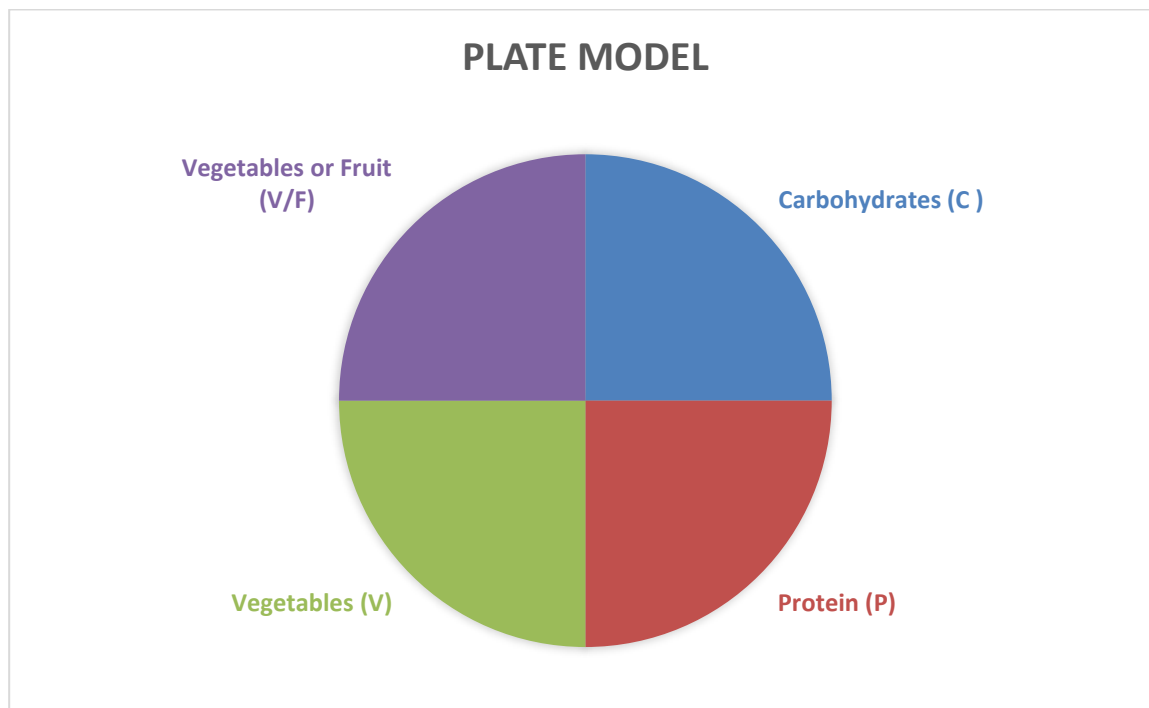
- **What you eat (composition of food intake)**

To eat a balanced meal means to eat protein, carbohydrates and vegetables/fruit with every meal. Eating a variety of food is important because each food type has its own unique nutrient profile and ensures that the body gets all the nutrients it needs. It is important to combine carbohydrates with protein in every meal as this combination ensures more stable blood glucose levels and sustained energy release throughout the day. A combination also ensures greater satiety, feeling fuller for longer.

A practical tool to assist in knowing what to eat is the plate model.

One quarter ($\frac{1}{4}$) of your plate should be:

- Starchy Carbohydrates (C)
- Protein (P)
- Vegetables (V)
- Vegetables or fruit (V/F)



- **How much you eat (total amount of energy intake {calories/kilojoules})**

Humans share a natural affinity for calorie rich foods which also happens to taste good. Calorie rich foods are often high in fats and/or sugars. The amount that should be eaten varies for all individuals and is dependent on gender, age, height, physical activity, etc. Controlling portion sizes is very important because portion size has a significant impact on total calorie intake. We normally underestimate the amounts we are actually eating. Over time portion sizes have become considerably larger and 1 standard serving size is actually much smaller than one would think. In the last 50 years the serving sizes of food served at restaurants have increased greatly, and serving sizes at fast food outlets have also increased dramatically.

A practical guideline of food intake (meals) that can be used together with the plate model is:

Starch the size of your fist,

Protein the size of your palm, and

Vegetables + vegetables/fruit the remainder of your plate.

General considerations

Generally, excessive sugar and refined carbohydrate consumption should be avoided. Rather choose carbohydrate sources that are high in fibre. Fat intake is important, but a high fat intake is best avoided since fat has two times more calories than carbohydrates. Too much salt in the diet of salt-sensitive individuals is linked with high blood pressure, heart disease, stroke, fluid retention and, where applicable, kidney failure.

Minimise the intake of processed, canned and salty foods like Vienna's, polony, salami, ham, bacon, packet soups, stock cubes, potato chips and other high-fat salty foods. Instead of adding extra salt, use pepper, paprika, curry and herbs during cooking, and make your own soup from dried beans, split peas or vegetables.

Water intake is important too! It is required for nutrient transport, waste product removal and regulation of body temperature. Generally, it is recommended to drink \pm 6-8 glasses of water per day. Drinking water when thirsty will restore plasma levels and ensure an adequate intake per day.

Healthy Eating Guidelines: Carbohydrates

Starchy foods, fruit and vegetables are sources of carbohydrates, the body's preferred energy fuel. In the absence of an adequate carbohydrate and fat intake, the body will make use of protein as an energy source. Consequently, carbohydrates may be viewed as protein sparing. Carbohydrates also play a role in the absorption of sodium, an important electrolyte.

Fibre plays an important role in prevention of certain diseases like type II Diabetes, Coronary Heart Disease and colon cancer. Fibre enhances satiety which will decrease the onset of hunger, thus less calories will be consumed. Consume legumes more frequently to increase fibre intake. Legumes contain minerals, plant protein, provide lots of energy and are low in fat. Sources include dried beans, baked beans, butterbeans, kidney beans, split peas, chick peas, lentils and seeds.

Tips to increase fibre consumption:

- Increase fibre intake gradually to avoid gastrointestinal upset.
- Replace all refined starches with high fibre options as mentioned above.
- Mix "oat bran" (1 teaspoon) into your yoghurt, add to cooked food or cook as a porridge.
- Use oats as a binding agent in your meatballs.
- Lentils and beans can be added to meat-dishes, stews, soups, rice, salads and Bobotie.
- Eat fruit salad or dried fruit for pudding.
- Drink lots of water to prevent constipation.

Fruit and vegetable are also high in fibre and **plenty should be eaten every day**. Eat fruit and vegetables with skins for example: apples, carrots and potatoes. Strive for five portions daily. This can be done by having fruit juice or fruit salad with breakfast, a banana as a snack, a salad with lunch (or plenty salad greens on sandwiches) and 2 vegetables with supper. Do not add fat when preparing vegetables and avoid overcooking them.

1 Fruit portion = ½ cup of fruit juice and 1 standard fresh fruit

1 Vegetable portion = ½ cup of cooked vegetables and 1 cup raw vegetables.

Tips to reduce sugar intake:

- Dilute fruit juice 50/50
- Reduce intake of cake/sweets/chocolate/ice cream/syrup/honey and jam
- Reduce intake of carbonated drinks and use diet cold drinks like Sprite Zero, Coke Zero and Sweeto.
- Do not add extra sugar to vegetables, rather flavour with herbs.
- Eating more fruits will decrease sugar cravings.
- Drink whole milk or diet cold drinks instead of soft drinks or squashes.
- Homemade popcorn, vegetable sticks, dried fruit, low fat yoghurt and plain biscuits with no icing are healthier snacking options.

Healthy eating guidelines: Protein

Individuals should strive to achieve the ideal intake of protein, not too much, not too little. Protein helps to build and repair tissue. It forms a structural role in hormones, enzymes, antibodies, haemoglobin, etc. making it important for a wide range of bodily functions. Protein can also be used as an energy source e.g. in catabolic processes or when not enough carbohydrates and/or fat is consumed. Too little protein can cause cardiac, skin and kidney abnormalities, and hair loss / tiredness and growth retardation in children. Some proteins (certain amino acids) are essential which means they cannot be synthesized by the body and need to be taken in from the diet. It

should be noted that a very high protein intake is contra-indicated in individuals who have kidney impairment/failure. *Please consult a Registered Dietitian if you suffer from these conditions.*

Meat, fish, chicken, eggs, milk and milk products are good protein sources and can be eaten daily. The intake of these foods is often associated with a subsequent saturated fat intake, which is said to increase the risk of lifestyle diseases. Please refer to [tips to reduce saturated fat intake](#).

Beans, peas, lentils and soy are good low-fat protein sources that also provide carbohydrates, micronutrients, fibre and phytochemicals. It can be used to replace animal protein sources or to add to meat dishes. Remember that they are gas forming and are best avoided before exercise.

Healthy eating guidelines: Fats

Fat is more energy dense compared to carbohydrates and protein. A too high fat intake can result in increased energy intake that may lead to weight gain and may increase chronic lifestyle disease risk. Although this is true, it does not mean that fat is all bad. Under sedentary conditions, when the brain uses carbohydrates as fuel, the heart predominantly uses fat as fuel. A moderate fat (30% of total daily energy) intake is required because it:

- Plays a structural role in all body cells.
- Protects some vital organs.
- Preserves body heat and maintain body temperature.
- Plays a role in the absorption and transport of fat-soluble vitamins.
- Acts as a reserve energy source, especially important for athletes.

Some fats are essential - we can't live without them. These are omega 3 unsaturated fatty acids which play an important role in the immune system. About 15 – 20 % of our total daily energy intake should be from unsaturated fatty acids and only 7-10% from saturated fatty acids.

Saturated fatty acids are found in the visible fat on meat including chicken skins, cream and creamy soups, full cream milk and cheese, hard margarine, processed meat, take-aways, palm kernel and coconut oil and should be limited (see tips below) Foods high in omega 3 unsaturated fatty acids are dark types of fish such as haring, mackerel, salmon and red mullet. Other unsaturated fats include olives, avocado, nuts and seeds like sunflower seeds, sesame seeds, pumpkin seeds and soybean seeds.

Tips to reduce fat intake

- Remove all visible fat and skins from chicken and red meat before cooking.
- Always choose lean meat cuts and mincemeat.
- Choose fish canned in brine, tomato, chilli sauce (sardines) or water rather than oil.
- Limit high fat meats like spareribs, boerewors, sausages, lamb and bacon to eating only once a week. Eat fish, and especially fatty fish, 2-3 times per week.
- Use olive or canola oil instead of sunflower or other cooking oils. Don't expose your oil to heat for a long time period. Start cooking your food immediately when oil is ready and remove from heat source as soon as food is cooked. Don't re-use olive oil.
- Steam, grill, roast, stir fry, sauté or boil food as far as possible, rather than frying or deep frying.
- Food can be marinated in yoghurt, fruit juice, lemon juice or wine to enhance moisture.
- Reduce the intake of full-fat products like full fat mayonnaise, creamy soups and sauces like mushroom, cheese and creamy white sauce. Prepare white sauce with skimmed milk – no added margarine. Rather use Tomato/ Tabasco/ Soya/ Worcester.
- Avoid coffee creamers, cream and dips –use yoghurt, buttermilk or cottage cheese.

- Choose lower fat cheeses e.g. low-fat cottage cheese instead of cream cheese/ cheddar cheese/blue cheese or mascarpone.
- Use low fat/ lite salad dressings. Balsamic vinegar can act as a fat free salad topping.
- Whole wheat bread is a lower fat option than vetkoek, muffins and scones.
- Limit the intake of high fat snacks e.g. cookies, cakes, chocolates, pies, chips, potato crisps, etc.

Tips for eating out and take-aways:

CHOOSE...	RATHER THAN...
Pizza – vegetarian or seafood or chicken. Ask for less cheese.	Pizza with everything. Limit meaty toppings as it can be high in fat.
Regular Hamburger.	Café Hamburger with bacon and extra cheese.
Pita bread with low fat fillings e.g. mushrooms, tomato, roast chicken.	Meat pies, sausage rolls, savoury tarts.
Pasta Napoletana/ Arrabiata or any with a tomato base sauce.	Pasta Alfredo/ Carbonara or any with a creamy sauce.
Clear soups.	Creamy soups (Unless low fat option is available).
Roasted chicken or steamed fish.	Fried chicken or battered fish.
Frozen yoghurt or fruit salad.	Ice cream or desserts made with cream.
Whole wheat bread rolls or open sandwiches with tuna / chicken / cottage cheese.	Toasted white bread with regular ham and cheddar cheese.
Side salad. Ask for separate salad dressing.	Side portion of chips.

Please note that this is only approximate guidelines. For a more individualised diet plan (taking age, length, body structure, gender, dietary preferences, training, etc. into account) or any other nutritional enquiries, please contact our Registered Dietitian for assistance.