

ANTIOXIDANTS

These are substances that occur in fruits and vegetables and are also made naturally in the body which help neutralise the damaging effect on cells of by-products known as free radicals. Sources of antioxidants available from the diet include vitamins A, C, and E and the minerals copper, selenium, and zinc. A combination of antioxidants is most beneficial as they all have different protective roles.

Certain foods are rich in antioxidants. For example, vitamin C and phytochemicals are abundant in fruit. Of particular interest are two types of phytochemicals – flavonoids and polyphenols – which together have a powerful antioxidant quality. Lycopene is a powerful phytochemical found in cooked tomatoes.

To get the maximum benefit from antioxidants, try the following:

- Eat plenty of fresh fruits and vegetables
- As vitamin E is one of the best antioxidants, include olive and rapeseed oils regularly
- Prevent the build-up of free radicals by not smoking, washing fruits and vegetables, reducing time spent in the sun and polluted areas, and getting enough sleep

POWER FOODS

These foods are highly valued for the health-giving, disease-preventing properties of the nutrients they supply. No single food can protect you against all diseases, but the right combination of foods can really help boost your immune system and improve your general well-being.

- Berries, e.g. strawberries and raspberries contain ellagic acid a type of phenolic acid that reduces the damage caused by smoke and air pollution
- Cruciferous vegetables, e.g. broccoli, contain substances that increase the antioxidant defences of cells and switch on enzymes that detoxify carcinogens
- Nuts and seeds, e.g. linseeds, walnuts and Brazil nuts, are rich in essential fatty acids such as omega 3 beneficial in treating high blood pressure and cholesterol, and phenolic acids which can help combat prostate cancer.
- Live yoghurt is rich in calcium vital for bone health, protein and active cultures which help restore gut flora especially after taking anti-biotics
- Oil-rich fish, e.g. salmon, are rich in omega-3 fatty acids which may help control cholesterol levels
- Olive oil is an excellent source of monounsaturated fat which maintains levels of 'good' cholesterol and vitamin E an important antioxidant
- Orange vegetables and fruits all contain antioxidants in the carotenoid family e.g. beta-carotene and vitamin C
- Pulses contain substances called saponins which prevent cancer cells from multiplying
- Whole grains such as porridge oats are high in soluble fibre help to reduce cholesterol levels. The 'super' grain Quinoa is gluten-free, high in fibre and protein

- Spinach is folate-rich important for expectant mothers and also contains lutein and vitamin E
- Tomatoes are rich in lycopene a potent antioxidant that may protect against prostate cancer. Lycopene levels are higher in cooked tomatoes
- Green and black tea contain numerous active ingredients including polyphenols which may protect against stomach cancer and flavanoids which may protect against viral infections

HEALTHY EATING HABITS

Adopting healthy eating habits, such as eating a varied diet based on a wide range of nutritious ingredients including as many power foods as possible, can help improve your health in a variety of ways by helping to control your weight, reducing blood pressure and cholesterol levels, treating infections and improving your resistance to them, and ensuring you get an adequate intake of vitamins and minerals.

Planning your meals helps to ensure you eat a healthy, well-balanced diet that includes at least the following:

- 5 servings of fruit and vegetables a day
- 3 servings of whole grains a day
- 2 servings of dairy foods or calcium-enriched soya products a day
- 2 servings of fish per week one of which is oil-rich
- 6 – 8 glasses of water

How you eat is also fundamental in improving your health. Eating slowly is the most important change you can make to your eating habits. It will not only enhance the enjoyment of your food, but also improve your body's ability to absorb essential nutrients and prevent digestive problems.

By becoming more aware of how and what you are eating, you will be satisfied with smaller portions of more nutritious foods. Don't forget you can still enjoy your favourite foods and drinks in moderation – just balance them out throughout the week with some power foods and you'll feel great!

HEART RATE TRAINING METHODS

Physical activity refers to all the body movements that result in energy expenditure; exercise refers to planned and structures repetitive movements designed specifically to improve fitness and health. These activities can be done at home, in the gym or outdoors.

Aerobic exercise is defined as any activity that uses large muscle groups, can be maintained continuously, and is rhythmic in nature. It is a type of exercise that overloads the heart and lungs and causes them to work harder than when at rest. Brisk walking, running, swimming, dancing, skipping rope and cycling are all examples of aerobic exercise.

This type of exercise has many health benefits including:

- Improved cardiovascular function
- Lowered blood pressure
- Increased HDL and decreased LDL cholesterol levels
- Reduced body fat and improved weight control
- Improved glucose intolerance and reduced insulin resistance

Before starting an exercise programme, it is essential to discuss your aims with a professional who will assess your level of fitness and plan an appropriate tailored programme. In the meantime, it is important to start incorporating more physical activity into your daily routine such as walking to the shops/work/school, taking the stairs instead of the lift or escalator, and doing your own housework/gardening.