

## Age slowly, eat less

Researchers studying the process of ageing (gerontologists) have observed that eating less extends the life span of many species of animals as long as they are provided with all the essential nutrients they need.

In fact, this is the most effective life-extension strategy used in animal experiments. This technique is referred to as caloric restriction, and experts in human ageing believe that it can do the same thing for human beings. A calorie is simply a unit used to measure the amount of energy in foods. Food supplies us with two main elements: energy and nutrients. Research suggests that most people consume too many calories but not enough nutrients for optimal health. Caloric restriction is not a near-starvation diet. It is a lifestyle plan that involves optimal nutrition while restricting calories. It creates many health benefits with little hunger. The Life Extension Foundation in the United States refers to the strategy as Caloric Restriction with Optimal Nutrition, or CRON. Practising CRON involves reducing daily caloric intake by up to 30 per cent by greatly limiting the consumption of high-calorie, nutrient-deficient foods such as white flour, refined sugar, and unhealthy fats. It is necessary that additional vitamins and minerals be added to any caloric-restriction programme to avoid any nutrient deficiency. Only calories, not nutrients, should be limited in this programme. Heart disease and diabetes Risk factors for heart disease such as obesity, high blood pressure, elevated blood glucose, high cholesterol and triglycerides are rapidly lowered once animals and humans are placed on CRON. As people age, their cells become resistant to the hormone insulin, a condition called insulin resistance. This causes levels of both insulin and glucose to rise in the blood and magnifies the risk of type 2 diabetes. After just one month of calorie restriction, even before any weight loss occurs, lower insulin and glucose levels are seen. Anti-cancer benefits CRON increases the body's defences against free-radical damage. Damage to cells from free radicals is considered to be a major cause of many diseases like cancer as well as the ageing process itself. Experiments show that ageing rats on CRON have a greater resistance to cellular damage when compared to younger animals eating a regular diet. The anti-cancer effects of caloric restriction are well known in experimental animals, and studies also suggest a protective effect in humans. Even non-cancerous growths like uterine fibroids seem to diminish with CRON. How to practise CRON Maintaining a reduced caloric intake over the long term can be very demanding, especially in a culture surrounded by an abundance of inexpensive, high-calorie, nutrient-poor food. To live long, healthy lives, we need to find a way to have the benefits of calorie restriction without being constantly distracted by hunger. Here are some guidelines. Avoid most of the modern 'fast foods'. Sweet, starchy, and fatty foods are calorie-rich foods. Focus on high-fibre, water-rich foods that include fresh vegetables and most of the not-so-sweet fruits. Supplement your diet with a high-quality multi-vitamin and mineral tablet and fish oil capsules at each meal. Replace one or more regular meals with nutritional shakes. Modern food technology has created delicious meal-replacement protein shakes. High-quality shakes are designed to be very rich in nutrients and very low in calories. The shakes I use and recommend contain less than 200 calories each, while providing more nutrients than is found in 2,000 calories of regular food. They are the ideal anti-ageing meals and provide critical dietary protein. Have a fibre supplement with water before meals. This will increase your feeling of fullness and reduce your absorption of fats and your food consumption. For this, I use a tablet called 'activated fibre'. Make water your standard beverage and drink lots of it. Water contains zero calories while helping to make your stomach feel full. The next choices of beverages should be herbal teas or coconut water. So restricting your food consumption while improving your nutrition can lengthen your life.