When mankind was still young, up to 4,000 years ago, the staple diet imposed on us by Nature consisted of wild plants and small, huntable animals. Comparison between this diet and the current United States diet, for example, shows great differences in protein, fat, sodium, potassium and calorie intake. But the most significant changes in mankind's diet have taken place only during the last two centuries. Biologically, therefore, people have had little time to adapt to rapid changes in food which occurred first in Northern Europe and North America and only very recently in other areas. These changes have led to a much-increased supply of protein-rich foods, and at the same time to an excess of animal fats (so-called saturated fats).

These changes have played a significant role in the epidemic of such chronic ailments as cardiovascular diseases and cancer, which have become the leading causes of premature death in the developed world. The same chronic diseases are also becoming a serious problem in developing countries - a fact that is hidden by the high prevalence of communicable diseases. Indeed, cardiovascular diseases, cancer and accidents are the three main causes of death for the age group 15 to 64 in both developed and developing countries.

By the late 1950s, the idea took hold that some chronic diseases, in whole or in part, might be of nutritional origin. Nutritional excess in parallel with nutritional deficiencies (for instance iodine or iron) became a focus of research. Since then, accumulative scientific evidence has confirmed the role of diet - together with other kinds of behaviour such as smoking, stress and a lack of physical activity - in the development of chronic diseases.

Excess intake of animal fats is the main cause of elevated serum cholesterol, the main contributor to atherosclerosis and its consequence - heart attack. The development of hypertension, which puts the individual at risk of strokes as well as heart attacks, is very closely related to such dietary factors as obesity, high sodium intake and heavy alcohol drinking. Obesity, one of the most common health disorders in the developed world, is also related to the onset of diabetes mellitus.

It has been estimated that 35 per cent of cancers are associated with diet. Excess fat intake has been linked to an increased incidence of cancers of the breast and colon, while food preservation techniques (for instance salting) have been associated with stomach cancer. If we expand the discussion still further to other chronic diseases associated with diet such as gallstones, osteoporosis, goitre and dental caries, the picture becomes clearer and more comprehensive.

A healthy diet becomes even more meaningful if the harmful effects of heavy alcohol drinking are taken into account. Alcohol has become an integrated part of the diet in many cultures. Yet in

The delicately patterned arterial system, as an 18th century artist portrayed it, has to be protected from the clogging effect of excess fat in the diet. Photo WHO
spite of its possible favourable effects when taken in moderation, excess drinking increases the risk of traffic accidents, is associated with liver cirrhosis and is a source of other health and social problems. In addition, the high calorie content of alcohol contributes to excess body weight.

In accordance with existing disease patterns and scientific knowledge, developed countries have started to set national guidelines for healthy nutrition, with the special aim of preventing and controlling chronic diseases. It is none too soon for many developing countries to take similar action. Conceivably, the least developed countries may still be in a position to inhibit the development, among the whole population, of those harmful lifestyles which have evolved during recent decades in the developed world – lifestyles which are now taking a great toll in terms of human suffering and economic costs.

In countries with excess or emerging chronic disease problems, guidelines for healthy nutrition include recommendations about fat intake. For most individuals, this means eating less animal fat in all its forms like butter, processed food and so on. A healthy diet should contain fruits, vegetables and whole-grain cereals; this situation still prevails in many developing countries. The diet should not contain much salt – physiologically a human does not need any added salt. A healthy diet should on the whole contain a balance of carbohydrates (in the form of fruits, vegetables and cereals) and protein (ideally from beans and pulses, low fat dairy products, fish or lean meat).

Such a diet is very close to the actual diet in many developing countries. And this composition guarantees that a person gets enough of the vitamins and minerals that are essential for wellbeing.

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**Animal fats clog your arteries**

Meat is not necessary every day. Fish, poultry, skimmed milk and its products, cereals and pulses also contain proteins.

**An apple a day keeps the doctor away**

Vegetables and fruit contain vitamins, mineral and fibre, all essential for the healthy functioning of the body.

**Take salt and sugar with a pinch**

Excessive salt contributes to hypertension and stroke. Refined sugar in excess is transformed into undesirable fat and is bad for your teeth.

"An apple a day keeps the doctor away". Popular wisdom has long known the benefits that our bodies derive from vegetables and fruits. Photo WHO/Zafar