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Meat and Meat Products in a Balanced Diet

- The primary target of a balanced diet: maintain a healthy weight as weight is a determining factor in the development of chronic diseases such as Cardio Vascular Diseases-Type 2 Diabetes, Cancers.

Diets including meat and their products provide a high degree of satiety, and hence prevent "compensating" through the intake of nutrient poor foods, thus helping to maintain a healthy weight and prevent obesity.

Meat and their products contain protein¹ of a high biological value due to their essential amino-acid composition notably tryptophane –methionine- and lysine, which the body cannot produce. The essential amino acids are well balanced, i.e. in the ratio that the body needs.

Meat and their products are a natural source of vitamins and minerals which are essential to healthy growth and function, notably: Zinc, Iron, Selenium, Phosphorus, Vitamins of the B group and Vitamin D. Meat products account for significant amounts of micronutrients (>15% RDA) in the diet of broad groups of population and have been regularly consumed as a part of the so-called Mediterranean diet over the centuries.

- Meat and Meat products as well as other foodstuffs of animal origin (i.e. eggs, milk and dairy products) contain by their very nature saturated fatty acids and cholesterol.

It should be noted that only a limited portion of blood cholesterol comes from foodstuffs. The remainder is endogenous.

In meats the percentage of **unsaturated** fatty acids is high (over 50%) and monounsaturated fatty acids are present in comparable proportions as are found for example in olive oil. Long chain polyunsaturated fatty acids are present in significant quantities.

Naturally occurring Trans Fatty Acids (TFA) which are present in ruminants are insignificant. TFAs are **not** present in pigmeat and poultry.

¹ Protein: comes from the Greek "proteios", meaning primary, most important

- Regarding meat intake, if one refers to data quoted in the 2005 EPIC study using figures collected by Linseisen et al (2002) daily average total meat intake (women and men) in 7 selected countries participating in the study amounts to 108 g. It should be noted that the intake of poultry meat has increased in the past four years.

Data for processed meat product intake vary considerably between countries. However using the same sample² as quoted in the 2005 EPIC study, average daily per capita intake is around 37.5 g. (EU-15).

Norat, et al (2005) consider that intake should be ≤ 80 g red meat/day and 80 g meat products/day. Real intake is therefore well within these margins.

- The preparation of meat products means the addition of salt, often but not always together with nitrite and/or nitrate to meat.

The purpose of salt is the lowering of the water activity which retards or inhibits the growth of unwanted microorganisms. Average salt usage has been reduced by 15 to 20% over the last decade.

The main purpose is food safety. It protects against physical and microbial deterioration and enables the formation of the stable red colour.

Nitrites and nitrates inhibit the growth of some pathogenic microorganisms. They also retard oxidation and hence rancidity; form a stable red colour and add to flavour.

Nitrites and nitrates in meat products have been steadily reduced over the past decades and their content in the final products is often at very low levels (few mg/kg).

Concluding remarks:

A balanced diet, containing foodstuffs from both vegetable and animal origin remains a recommendation that the medical world should feel able to support. The vast majority of meat products have been indeed around for centuries without causing any health problems, quite the reverse.

However while bearing in mind the crucial safety factor on which the processed meat industry will not compromise, it is making every effort to reduce the salt content in its products.

Indeed the development over the past 30-40 years of other foodstuffs previously not available but which have become part of many peoples diets has brought about this necessity.

We note with interest that public bodies and national authorities have finally recognised the central role of physical activity in maintaining health and that many countries have taken steps to discourage smoking which is a known cancer risk factor.

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² Greece, The Netherlands, Italy, Germany, Spain, UK and Denmark.