

NUTRITION

Diet in Health and Disease

By

S. B. Lal, M.B.B.S., D.P.H. (EDIN.)

Asstt. Director of Public Health (Nutrition)

Public Health Laboratories, Patna-4.

The Nature of Foods (Contd.)

Fish.

In fish the chief nutrients are protein and fat, the latter varying in different varieties. When fish is steamed or boiled, a considerable amount of the water in it is lost and the percentage of protein and fat rises. Fish contains more gelatin than meat which is largely lost if the fish is boiled. Small fishes consumed whole i.e., along with bones, serve as a good source of calcium. There is no difference in the purin content of fish as compared with meat and the restriction of the latter and free use of former in patients with gouty diathesis is fraught with danger. Economically it is advantageous to increase the consumption and our vast sea-coast line offers an abundance of this good protein food. With the modern methods of refrigeration and transport, it should be possible to supply fish to the remotest corner of India. Fish is a very excellent source of nicotinic acid and the liver of some species, a very good source of vitamins A & D. Small lean fish with their smaller and thinner muscle fibres are suggested for persons with weaker digestion as they are easier to digest than the larger and more fatty fish.

Meat.

Meat that we consume is mostly the muscle of the animal, the amino-acid pattern of which is similar to human muscle and, therefore, of special value in human muscle building. Digestibility depends on the degree of fat present and lean meat is usually

suggested to patients and persons with lowered power of digestion.

After an animal is killed, and kept for some time, there is a rise in the acidity of the muscles which improves its flavour, and makes it easier to cook. The flavour in meat is due to the presence of extractives which act as appetisers. The flesh of a fully grown animal is richer in extractives than an immature animal and the type of feed that an animal has during its life also effects the flavour.

Red and white meat do not differ in the purine content and are of the same value in gouty diathesis.

In cooking the chief changes that occur in meat are (a) loss of water, (b) shrinkage in size, (c) loss of extractives (d) removal of some fat, and (e) loss of some vitamins. Meat has a high biological value with a high specific dynamic action which is an advantage in cold weather. Of the few articles of diet, meat is one on which life could be supported indefinitely, for example, the Eskimos live almost entirely on meat.

There is little evidence that a high meat diet predisposes to heart, liver, kidney diseases or to hypertension since if such was the case, then all Eskimos should suffer from one or more of such maladies but the incidence of these conditions amongst them is not more than amongst others. In spite of the advantage of meat it is a dearer food and economically is beyond the reach of many till such

time as the production increases, and prices come down to a level that is within the economic scope of every individual.

Mutton is easier to digest than beef but veal is difficult to digest. Chicken and game are easily digested, although water birds which contain more fat, are less easily digested. Digestibility is improved by pounding the meat before cooking, while over-cooked meat is slightly more difficult to digest.

The other parts of animals such as liver, kidneys, heart, lungs, pancreas or sweet bread are of considerable nutritive value, being rich in iron, vitamin A, riboflavin, nicotinic acid and thiamin; liver is very rich in vitamin A but contains nucleo-proteins which form uric acid and, therefore, is unsuited to patients with gout. Both liver and kidneys should be well-cooked and well-masticated. Stomach is called tripe and is rendered easily digestible

on boiling, and is a valuable food. Brain contains mostly fat, cholesterol and lecithin, the latter being rich in phosphorus; it is easy to digest. Pancreas are rich in nucleo-proteins and so aid the formation of uric acid and should not be given to gouty persons.

The average intake of meat, fish, eggs etc., per consumption unit per day, has been found to be: Assam 1.25 ounces, Bihar 0.67, Bombay 0.91, Madhya Pradesh 0.46, Hyderabad 0.68, Madras 0.6, Orissa 0.3, Punjab 0.35, Travancore 2.35 and West Bengal 1.32. According to the National sample survey an Indian spends only Rs. 9.2 per year on flesh food which supplies less than the suggested standard of 2 ounces per head per day. Due to the high cost of meat and eggs, the only way to increase the consumption of animal proteins would be to increase the production of fish.

(To be continued)

A Troublesome Patient

Patient: You see, nurses, whatever you do, don't steal these two things as they are valuable to me; my spectacles and my false teeth.

We were stunned; we didn't even answer. Just think a bit, who on earth would steal false teeth!!

The following night we came with a bottle of spirit to rub her back.

Nurse: Will you please let us rub your back?

Patient: You are not going to rub me. I never complained of a sore back.

Nurse: It is a fundamental rule that each patient who lies in one position should be rubbed.

Patient: Will you please leave me alone? If I don't like a thing, I don't like it. Who are you to force me to do it? Early in the morning, I'll tell the doctor that you bring water here and tell me it is medicine. Do you think that I am a fool?

We left her as she was. One cold morning as I gave the patient tea, she called me.

Patient: Couldn't you give me two more spoons of sugar?

Nurse: That sugar is quite enough; you will suffer from diabetes.

Patient: What do you know about diabetes? I have been eating sugar and sweets for 78 years and I never suffered from that diabetes of yours, but today because I am here in hospital, I am capable of getting diabetes. I am going home!

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