



Why Vegetarianism?

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Part – II

In the last issue, we saw the process of meat production and the associated diseases to a meat diet.

One consequence of a high meat diet with its high protein content is that it increases urinary excretion of valuable bone calcium. It has been established that calcium levels in the blood are maintained at the expense of bone calcium and over a long period of time results in diminution of bone mass and osteoporosis, thus weakening bones. (Anand C.R., Linkswiler, H.M. Journal of Nutrition p.104. 1974) A meat eater also accumulates more nitrogenous wastes such as urea and uric acid. An American physician analysed the urine of meat-eaters and vegetarians and found that the kidneys of meat-eaters have to work three times harder than those of vegetarians, to eliminate poisonous nitrogen compounds. With age, the kidneys become inefficient and the unexcreted uric acid is deposited throughout the body. There it is absorbed by the muscles like a sponge soaks up water and later it hardens to form crystals. When these collect in the nerves, neuritis and sciatica result; in the joints the painful conditions of arthritis and rheumatism result. People afflicted with these conditions are now advised by many doctors to stop meat altogether.

Nutritional Considerations

Some non-vegetarians argue that meat is a complete food in itself whilst one would need to spend a long time combining the right vegetables to get enough protein everyday or maintain a balanced diet. Firstly, meat is not a 'perfect' food and contains at the most about 30% protein. Its net protein utilization (NPU) - the amount which is actually digested and absorbed by the body for the following is:



Source of Protein	NPU
Milk	82%
Cheese	70%
Meat	67%
Mung beans	67%
Whole wheat	60%

Weight for the above foods may have less protein than meat but because their NPU is high, by eating more or a combination of them one can easily meet one's daily recommended protein intake.

Secondly, protein is not the only body requirement. Elements such as calcium, magnesium, potassium, iron and vitamins like A, C and the B-complex group are also found in vegetables and fruits and excepting iron are almost invariably absent in flesh foods. Not surprisingly, good nutrition is difficult on a meat diet.

One important factor for efficient functioning of the intestines that is absent in meat is fibre - roughage, which accounts for poor elimination - a common complaint of meat-eaters. Vegetables provide the bulk and fibre which retain water and binds the waste for easy passage. The British Health Education Council is of the opinion that, "Lack of fibre seems to be connected with various other disorders of the bowel including piles and a serious inflammation called diverticulitis."

Anatomical Characteristics

Isn't it natural for humans to eat meat because we have been doing it for ages? Recent study by researchers have concluded that our early ancestors were vegetarians who ate meat only during extreme environmental conditions such as during the Ice Age. Examining the body structures of man, wholly meat-eaters (carnivores) and herbivores can also substantiate man's natural diet.

Carnivores such as lion, dog, cat, etc., possess a very simple, and short digestive tract. Since flesh decays very rapidly, the products of this decay quickly poison the body if they remain too long in the gut. They have stomachs which produce 10 times the amount and 20 times the concentration of hydrochloric acid than non-carnivores to facilitate digestion of tough fibrous tissue. Their saliva is acidic whilst that of herbivores and man is alkaline. Herbivores have a longer digestive system since vegetable matter takes longer to digest and there is no question of decay products poisoning the body.



Length of Digestive track relative to length of body	Nature of Saliva	Method for liquid intake
Carnivores : 3 times	Acidic	Lapping
Herbivores : 10 times	Alkaline	Sucking
Man : 12 times	Alkaline	Sucking

It is also interesting to note that non-flesh eaters drink water by sucking as opposed to lapping it up with their tongues which all meat-eaters do. The latter also 'sweat' through their tongues and not through sweat glands in the skin as in non-carnivores.

The type of dentition present also gives an idea about the diet of animals. All meat-eaters have to kill their food using claws and teeth. To pierce tough skin and tear flesh they are equipped with powerful jaws and long, pointed canine teeth. They do not have molars - flat back teeth which vegetarian animals have - for grinding their food. Flesh unlike vegetable matter does not need to be chewed hence it is swallowed in small pieces. And no wonder their jaws have very limited side to side mobility unlike herbivores which use it for grinding.

Human physiological characteristics are very similar to the grass-eater. The digestive system is twelve times the length of body. Sweating occurs through millions of pores in the skin, liquid is taken up by suction, the tooth and jaw structure is undoubtedly a sure sign of a vegetarian and the saliva is alkaline.

Even by instinct we humans are non-carnivorous. One scientist has stated that, "A cat will salivate with a desire for hunger at the smell of a piece of raw flesh but not at all at the smell of fruits. If man could delight in pouncing upon a bird, tear its living limbs apart with his teeth and suck the warm blood, one might conclude that nature provided him with the meat-eating instinct. On the other hand, a bunch of luscious grapes make his mouth water, and even in the absence of hunger he will eat fruit because it tastes so good." Most people have other people kill their meat for them and would be sickened if they had to do the killing themselves. So we do not even possess the killing instinct let alone the eating which follows it.

Economical Facts

Meat is grossly wasteful of natural resources. Land which is used to produce food crops for direct human consumption feeds 14 times as many people as land used to grow food for animals-used for human consumption. Plants will yield 800,000 calories per acre for direct human use, but only 200,000 when these same plant foods are first fed to animals. The remaining 600,000 are used up by the animals themselves. 'Meat animals' are poor converters of energy for human consumption and meat thus represents the greatest food energy loss.



Energy Loss in Use of Land for Meat Production

Land use	Food Product	Calories
1 Acre Wheat	Bread	800,000
1 Acre Grazing	Meat	200,000
Energy Loss		600,000

Energy is lost by animals in form of : respiration, excretion, reproduction, motion, etc. Animals are also wasteful of protein itself. Of the protein that animals consume :

23% is returned in the form of milk

15% is returned in the form of pork and

10% is returned in the form of beef.

Whilst, soya beans on average will produce 17 pounds of protein per acre compared to 2

pounds for milk and 1 pound for beef by cows.

Another way of examining the economics is by comparing the production of Standard Nutrition

Units (SNU) per acre. A single SNU is defined as 2,500 calories per person per day.

Diet	Number of SNUs Produced per acre
Meat & Milk	1.3
Wheat & Bread	4
Rice & Beans (Japanese style)	7

From the above table it appears that a simple vegetarian meal can be nutritious and economical.

Source: <https://www.baps.org/Article/2011/Why-Vegetarianism-Part-II-2244.aspx>