A STRICT VEGETARIAN DIET

BY

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It may be that the fuel value of the "man diet" is put as high as 3,400 calories because a diet largely consisting of meat, white bread, cheap margarine, and sugar is badly selected, and therefore eaten in large amounts, not only to satisfy appetite excited by cooking and flavours, but also to secure more of the vitamins and minerals which are inadequate in these foods.

The calorie and protein values can in this case be lessened when the diet is largely one of fresh fruit and vegetables. It must be kept in mind that protein in particular stimulates heat production. Hindhede at the age of 80 claims that he bicycles all over Denmark with ease on a diet of skimmed milk and potatoes. The Japanese rickshaw runners can pull a passenger even sixty miles in a day on a diet of rice, salad, and a little fish. On the other hand, the Eskimos are healthy and free from rheumatism on a diet of raw meat, liver, blood, etc., with some fish, duck, and a little sorrel and moss.

The Boy and his Dietary

In the above respects the following is of interest in regard to the diet of a boy whose parents, people of culture, are strict and ardent vegetarians. His home is in a wood isolated from other houses and two miles from any shop. He is aged 9, weighs 59 lb., and is 52 inches high; he is bright and intelligent, with clear skin and eyes, walks ten miles a day with ease, takes a cold bath every morning and an air bath out of doors. He has a remarkable power of chest expansion and abdominal retraction, due to breathing exercises. He does well at school and holds his own with other boys. He eats no meat, fish, eggs, or bread at home, and scarcely any milk or cheese, but is allowed to eat bread-and-butter and cake when he goes out to tea about once a week.

He goes to a day school two and a half miles away, and there has vegetables for dinner, with some fruit. He may, of course, get a few sweets from other boys, but boys are not ready to give away much.

The following is typical of a day's diet, which his parents guarantee to be given to me correctly. By personal inspection and inquiry I have not been able to find any source of error.

Breakfast.—After walking five miles to church and back. One fairly thick slice of pineapple, weighing about 6 oz.

Lunch.—Baked spinach and onion pie, with a very thin crust made of wholemeal flour, cheese, and milk, about 10 oz. in all.

Tea.—Two apples, one orange, two small tomatoes, in all about 12 oz. including the skin of the orange. One small ice.

As variants for any one of these meals he may have salad and 2 oz. of raisins or eight dates; two apples and 1 oz. of sour milk; or a vegetable pie and 1 oz. of honey.

Grapes, pears, bananas, water-cress, cauliflower eaten raw with a little salad oil, may substitute any of the above.

His father writes:

"He is in fine form, full of life and energy, and getting stronger and tougher rapidly. Anybody who likes could come and 'observe' there is no deception; only the workings of God's laws of nature in a clean young organism. It is only due to too many tea parties, and consequent starch and sugar consumption, that he ever gets mildly out of sorts, and is not at his best until the 'poisons' have been eliminated, sometimes by a short fast. But his vitality is so strong that he can clean his small body internally—i.e., blood and tissues—with extraordinary speed. I am quite satisfied that it is not possible for him to develop any serious symptoms due to infection"—from which he has so far remained free.

Confirmatory of his father's claim that the boy lives on a diet much like that given by his parents is the fact

that the total nitrogen determination was 4.43 grammes in the twenty-four hours' urine, equivalent to a consumption of 28 grammes of protein. The urea came out as 2.05 per cent. and a total of 9.65 grammes in twenty-four hours. A second sample of twenty-four hours' urine taken some weeks later gave figures in good agreement. Dr. H. E. Archer, who made the determinations for me, said he had not come across so low a value for protein metabolism before. Dr. W. A. R. Thomson examined the boy and determined his basal metabolism for me at St. Thomas's Hospital. The boy was brought there in a car at 9 a.m., having had no breakfast, and then rested on a bed for an hour. The result was slightly above normal. The excitement would naturally put his oxygen use up. The figure was 215 c.cm. per minute. Dr. H. J. Taylor found his excretion of vitamin C in the urine was six times as great as is normal for people on an ordinary diet.

Comparison with Apes' Dietary

In striking contrast to this boy's diet, which from the data given for one week scarcely came to 800 calories a day, is that of the chimpanzees and gorillas at the Zoo, particulars of which were kindly given me by Dr. G. M. Vevers.

The diet of the Zoo chimpanzees weighing, male, about 175 lb., and female, 120–130 lb., gives approximate values for protein 145 grammes, carbohydrate 850, fat 220, calories 6,000. The animals probably get about four-fifths of this, or 4,800 calories. The diet of the gorillas was even more ample. The post-mortem examination of Mok, the gorilla which died, showed, besides a subacute pneumococcal septicaemia, evidence of over-feeding, but the chimpanzees keep slim and in good condition.

Moina's, the female gorilla, diet has now been reduced by one-third, while the same wide selection of foods is maintained.

Average Daily Amount of Food for Adult Chimpanzee

Food	Weight in grammes	Extra Winter Food Weight
Bananas	1,320	Grammes
Apples	450	
Oranges	315	
Grapes	450	
Lettuce	250	
Bread*	300	300
Eggs	55	
Milk	1,747	
Carrots	450	
Potatoes	450	
Nuts	225	112
Biscuits	225	112
Margarine	30	30
Jam	25	25

* Each 2 lb. loaf contains 2 oz. soya flour and $\frac{1}{2}$ oz. bone flour.

R. J. Boursais (*Thèse Paris*, 1938, No. 166), who records fourteen cases in women aged from 20 to 43, states that chancre of the vaginal walls is much less frequent than chancre of the cervix. It appears to be commoner in prostitutes than in other women, in whom it is probably often overlooked. Failure to recognize vaginal chancre explains the discovery of syphilis only in the secondary stage—the so-called "syphilis without chancre," which is more frequent in women. Vaginal chancre offers a great risk of infection. On the other hand, if it is detected early, a source of contagion may be removed which is all the more dangerous as it may remain unrecognized for weeks until the secondary symptoms appear.