proportion of deaths due to cancer than among persons not overweight at the time the policy was issued. In one insurance report the relationship between overweight and cancer was more marked for cancer of the female genital organs and intestines than for cancer of the breast, stomach, liver or gall bladder. Other statistics did not show any relationship between weight and cancer mortality. The most favorable statistics did not support this relationship very strongly and even if further work substantiates a relationship between overweight and death from cancer, one can not be certain that the relation between cancer and weight is direct; there may be several factors little understood that affect the development of obesity in an individual.

Furthermore, since these weight records were made many years prior to death from cancer it seems undesirable to place too much emphasis on them. Tannenbaum's suggestion[5] of the need of securing more data on the relationship of weight to death from cancer is a good one. Many factors, including composition and amount of diet, should be studied before drawing final conclusions or making specific recommendations.

The role of exercise upon cancer development has not been extensively investigated experimentally. Kline and Rusch[6] have recently reported the results of forced exercise on a transplanted sarcoma in mice. No difference was observed in the number of takes in exercised and non-exercised mice. It seems that if there is any phase of a tumor transplantation experiment which might be classified in the "critical period,"[6] as used by Potter,[1] it would be the period before the transferred tumor cells began to grow in their new host, yet it was only during the growth period of the transplanted sarcoma that forced exercise was observed to slow tumor growth. This would certainly come under the "period of progression" as defined by the above-mentioned authors. It is entirely possible that forced exercise may also play some role in carcinogenesis during this so-called critical period, but the evidence cited seems inadequate. It may be more nearly correct to conclude from the data that forced exercise decreases tumor growth instead of genesis of tumor. Even here such an interpretation is complicated, as Potter also points out, because of the concomitant lowered food intake of the exercised mice.

This survey of the experimental evidence on the genesis of spontaneous mammary tumors in mice leads one to conclude that dietary regimens, so far as are known, which inhibit or delay the disease in animals are too drastic even if applicable to be of practical value as a means of preventing human cancer. The effect of exercise on carcinogenesis has been too inadequately investigated, even in animals, to be used as a guide in drawing definite conclusions about its efficacy as a measure in the prevention of human cancer. On the other hand, nutritionally good diets have been observed to delay carcinogenesis. Therefore, no broad generalization on the effect of nutrition in the prevention of human cancer should be made at this time.

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[6] B. E. Kline and H. P. Rusch, *Cancer Research*, 4: 762, 1944.

FAT CONTENT OF GUINEA-PIG MILK

DURING a search of the literature for data on the guinea pig, I found several references which quoted the fat content of guinea-pig milk as being 45.80 per cent. This figure had been taken from page 470 of "Physiological and Pathological Chemistry" by G. Bunge (2nd Eng. Ed., 1902, Philadelphia, Blakiston). Going back to the original paper, I found that the author was Professor Purdie (Chemical Laboratory of St. Andrews) and that the paper was published in *Chemical News*, Volume 52, page 170, 1884. Actually this paper deals with dolphin milk. The editors of the above-mentioned edition of Bunge's text-book got their information from "Chemie der menschlichen Nahrungs- und Genussmittel," by Dr. J. König, which quotes Purdie's figures for "Meerschwein Milch (Delphinus phocaena)" as being 45.80 per cent. Thus a mistake has been made by translating "Meerschwein" to "guinea pig." The German for guinea pig is Meerschweinchen.

To show that Bunge himself did not believe that guinea pigs had such an excessively fat milk, I would like to refer to Table I, page 142, in his book "Physiologie des Menschen" (1905, Leipzig). Here he quotes the guinea-pig milk as having 7.1 per cent. fat and dolphin milk 43.8 per cent.

Abredhalden in "Physiological Chemistry," page 654, gives the two figures 7.31 per cent. and 6.96 per cent. for fat content of guinea-pig milk. A few samples of guinea-pig milk tested in the laboratory for experimental biology of this department gave about 6.0 per cent. fat. It is known that this figure is a little low, because the last milk was not taken from the nursing guinea pigs.

The above error in translation has resulted in a wide-spread misconception as to the fat content of guinea-pig milk, 45.80 per cent. being the figure most commonly quoted. I feel, therefore, that the matter should be brought to the attention of your readers.

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