

**A look at
Information Compiled
On Cancer and Some
Interesting Conclusions—**

**civilization
and
CANCER**

Excerpts Compiled By
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"The studies described suggest that the normal body does indeed possess means for defending itself against cancer and that these means are wanting in patients with advanced disease."—

(1) "Sloan-Kettering Institute for Cancer Research Report," 1957 page 35.

"Compare this with the fact that cancer implanted into test animals fails to grow unless they have been fed refined foods for some time previous." (2) R. W. Engel, and D. H. Copeland, *Cancer Research*, volume twelve, 211-215, 1952.

ALMOST NON-EXISTANT

"Cancer among the North American Indians seems to have been all but non-existent. Hrdlicka writes on page 190: 'Malignant diseases, if they exist at all—that they do would be difficult to doubt—must be extremely rare'.

"The writer heard of 'tumors,' and saw several cases of the fibroid variety, but has never come across a clear case of an epithelioma or other cancer; nor has he as yet encountered unequivocal signs of a malignant growth on an Indian bone.' It may be interesting to note here that with our 'better methods of detecting diseases' cancer still is of small concern among some, at least, of the Southwestern Indians. Clarence Salisbury, M.D. found only 208 cases of cancer among 60,000 admissions at the Ganado Hospital on the Navajo Indian Reservation in a late report—only three of these were cancer of the breast.

In *A Study of the Dietary Background and Nutriture of the Navajo Indian*, Journal of Nutrition, volume 60 Supplement 2, Nov. 1956, in which this lack of cancer was studied and thought, at first, to be some error of nutrition, the

following conclusion was deducted: 'Further experimental studies of the effect of the particular diet as here described might conceivably reveal subtle unexpected effects, but in view of the well-recognized differences between racial groups in rate of incidence of cancer and other diseases, it may logically be hypothesized that a genetic influence is a more likely explanation than a dietary one.'

INTERESTING CONCLUSIONS

"From the two studies above cited some interesting conclusions can be made about cancer among these Indians. Once they did not have cancer—now they do. If genes predisposed the Navajo Indians to cancer, one must conclude that once the genes were good—now they are bad. The question before the house then is what made the genes go bad or what makes these Indians now subject to cancer?

"Hrdlicka certainly wasn't alone in failing to find traces of cancer among the North American Indians. Dr. G.C.M. Godfrey in the *Medical Record*, New York, 1894 testified to the complete lack of cancer among the Arapahoes and Shoshone Indian tribes. Dr. G. B. Kuydendall in *The Medical and Surgical Reporter*, Philadelphia, volume 33, 1875 mentioned that a cancerous disease is seldom seen among the Indians. Dr. George W. Ira, in the *Western Medical Review*, 1896 stated that malignant diseases of the reproductive organs were almost unknown among Indians. Doctor Andrew Currier in the *Transactions American Gynecological Society*, Philadelphia, 1891 wrote concerning the lack of cancer information he had obtained from twenty-eight Indian agencies: 'This teaches us that it is not privation, nor hard work, nor exposure, nor giving birth to and rearing many children which, of themselves, lead to the neoplasms which so afflict civilized women of the world over; the explanation must be sought elsewhere.' Fredrick L. Hoffman, LL.D. addressed the American Association for Cancer Research in regards to Cancer in Native Races in Albany, New York, April 1, 1926 in which was discussed the complete lack of cancer in various Indian tribes. There was a joint meeting of the Medical and Anthropological Societies, November 29, 1905 to discuss the lack of cancer and other diseases among the North American Indians which is contained in the *Washington Medical Annals*, volume 4, 1905-6, Washington, D. C. Dr. Kober, whose observations extended over a

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period of eighteen years among the Piutes, Nez Percés, Spokanes, Colville, Coeur d'Alenes, Klamath and Nodoc Indian tribes stated at this meeting that he had never seen a case of epithelioma or other malignant growth of the breast or external tissues in the Indian. At this same meeting Doctor Forwood of the Kansas, Nebraska and Dakotas Indians stated he had never seen a malignant tumor in a wild Indian.

VERDICT OF 100 PHYSICIANS

"The above medical journal reports contain the verdict of at least 100 physicians on the early Indian reservations. These were some of the same physicians detecting cancer in the white races at that time. We may have better methods of detecting malignancy at the present time but some, at least, of external cancers were probably just as easy to detect then as they ever will be." (3) *Diseases of the North American Indians*—Unpublished Manuscript by Bob Schmidt, 1959.

"h) Are There Regions with Little or No Cancer?—The question of whether civilization contributes significantly to the rise of cancer was studied among less civilized peoples.

"In the secluded Karakorum region of Asia, far from any civilization, live the Hunzas, among whom diseases are almost unknown. The people living there are sheltered from the psychic and physical stresses to which men are exposed in the more civilized areas. They are untrammelled by technological progress of industry. Their diet is simple and natural, and all remnants of food, together with animal excrement, is given back to the soil as manure. Sir Robert McCarrison, a surgeon in the Indian Health Service, observed a total absence of all diseases during the time he spent in the Hunza Valley. In particular, no cases of cancer came to his knowledge.

Doctor Ralph Bircher of Zurich has studied the conditions of life of these people (16) and attributes their health to the following factors:

- "1. Predominantly vegetable diet,
- "2. Abundance of raw food,
- "3. Prominence of fruit in the diet,
- "4. Abstinence from stimulants,
- "5. Sparing use of salt,
- "6. Restricted food consumption, due to insufficient farmland,
- "7. Observance of a lenten fast.

DR. SCHWEITZER BLAMES SALT

"In this connection the preface by Albert Schweitzer is significant. He mentions that when he came to Gabon in Equatorial Africa in 1913, he was surprised to find no cancer among the natives living 200 miles from the coast. Schweitzer attributes the absence of carcinoma and appendicitis to the difference in diet between the natives and the Europeans. He suspected that the principal reason was that the natives consumed no salt. In the course of recent years he has observed cases of cancer in increasing numbers among the natives. This development, according to Doctor Schweitzer, is to be ascribed to the increase of European influences, such as the use of salt, and canned foods.

Doctor Eugene Payne, who examined approximately 60,000 individuals during a quarter of a century in certain parts of Brazil and Ecuador, found no evidence of cancer. This was some time ago and it is likely that the inroads of civilization, together with its modern foodstuffs, may have altered the situation.

"These few accounts of regions and peoples free from cancer deserve attention, for they seem to indicate a correlation between civilizational noxae and cancer. Whether there are any regions still devoid of cancer can, however, only be determined by thorough research based on rigorously controlled statistics.

"A report on cancer research by the National Research Council (USA) emphasizes that there is a direct relation between nutrition and cancer (32).

"In the *Annals of New York Academy of Sciences* (8) and in *Advances in Cancer Research* (119) we find some very significant examples of the effect of diet on carcinogenesis. In rats, exposed to the action of azo dyes, it was found that occurrence of cancer of the liver was far more frequently observed when a diet low in lactoflavin was given, as compared to animals given a normal diet. In another significant animal experiment it was shown that a low-choline diet leads to formation of tumors in the liver. Another example relates to cancer of the thyroid gland which is far more frequent in regions of iodine deficiency than near the sea. Such cancer is observed ten times more frequently in Switzerland than in the United States, where goiter is not endemic.

"Cancer of the pharynx, esophagus

and oral cavity occurs almost exclusively among men, but in the northern parts of Sweden and Finland women also very often have such tumors. Most of their case histories show a Plummer-Vinson syndrome, attended by anemia, anacidity of the gastric juice, as well as atrophy of the mucous membrane of the mouth and pharynx. This syndrome definitely represents a precancerous stage. It is attributed to diet low in iron and vitamins, as people in these northern regions live chiefly on canned meat and eat very little fresh fruit and vegetables.

"The importance of the composition of our diet in relation to the genesis of cancer can be seen in statistical studies which show that obese individuals contract cancer far more frequently than do those of normal weight. These observations have been supported to some degree by experiments with mice, in which a low-calory diet diminished the incidence of spontaneous mammary tumors (119).

"Changes in diet, as observed in animals, affect the frequency of inception of tumors rather than the growth of existing tumors. The frequency of carcinogenesis, according to Tannenbaum and Silverstone (119), can be affected by modification of the diet in the following ways:

"1. 'By modifying the solubility, rate of metabolism, metabolic products, or amount of the carcinogen reaching the target tissues (the effective tissue dosage of actual carcinogen),

"2. By modifying the susceptibility of the target cells to tumor-initiating action, and

"3. By modifying the development of the initiated, biased cells.

"These latter two influences may involve not only cells but their environment: cell surface, ground substance, stroma, and blood supply.'

"We have discussed the defects in our nutrition and have pointed out that even minute changes in the food ingested may be important factors in the

development of cancer." (4) *CANCER, Nature, Cause and Cure*—Alexander Bergias, Member of the Cancer Research Foundation, Institute Pasteur, Paris—1957.

"In administering vitamin E we have employed an ether-extracted crude wheat germ oil prepared by the extraction of fresh wheat germ with ether. All animals fed this preparation of wheat germ oil eventually developed tumors.

"Fourteen rats fed with unrefined wheat germ oil which contained the sediment deposited therefrom developed abdominal tumors. The neoplasm following the ingestion of oil is malignant in nature and microscopically a sarcoma. It is readily transplantable and retains its malignancy through six successive implantations.: (5) *Neoplasms in Albino Rats Resulting from the Feeding of Crude Wheat Germ Oil Made by Ether-Extraction*.—L.G. Rowntree, John Lansbury and Arthur Steinberg. From the Philadelphia Institute for Medical Research in the Philadelphia General Hospital—Wheat Germ Oil in Tumor Production—*Proceedings of the Society for Experimental, Biology and Medicine*—Volume 36—February-June, 1937 (inclusive) New York.

Excerpts compiled by Doctor Royal Lee—*Lee Foundation for Nutritional Research*, Milwaukee, Wisconsin, December 29, 1959.

(16) Bircher, R.: *Hunza, das Volk, das keine Krankheit kennt*, Verlag Hans Huber, Berne and Stuttgart, 5th edition, 1955.

(32) Doherty, B.: *Cancer*, Random House, Inc., New York 1949.

(8) *Annals of New York Academy of Sciences*, 49, Article 1, pages 1-140, 1947.

(119) Tannenbaum, A. and Silverstone, H. From Greenstein, J.P. and Had-dow, A.: *Advances in Cancer Research* 1:452, Academic Press, Inc., New York 1953.

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