

Are Soil, Nutrient and Metabolic Degradation the Foundations for the Development of Cancer?

By Dr. Max Gerson, New York

(*Ernährungs-Umschau*, 1955, Book 6, pp. 128-30. Dec. 1955.)

There are many points of view about the influence of nutrition on the development of cancer. Many deny any influence; others are convinced that there is a close correlation between the two. Since this question preoccupies a wide circle of people, we representatives would like to present both sides of the issue in our newspaper. We start with an article by Dr. Max Gerson, who believes that the life in the soil and the plants has a great influence on the body's metabolism and that a disordered metabolism is one of the prerequisites for developing cancer.

The expression “Mother Earth” is well justified, but we modern humans are plundering the ever important foundation of nutrients for the present without thinking about the future. We just too often forget to give back to this gracious giver the abundant harvest she so willingly gave, or that she was obliged to give. What the defenseless soil increasingly loses, it cannot give to the plants. Thus, humans and animals are gradually showing the signs of deficiencies that cannot be so easily pinpointed or repaired.

In my opinion, the welfare of humans or the prevention of illness has an immediate connection to the treatment and maintenance of the soil composition and its plant life. Of course, the body has reserves. When the resorption¹ system in the intestinal tract functions normally and the liver can adequately combine, store and reuse the materials, then the damage remains minimal or the body can last longer without the appearance of illnesses, and can even compensate for it. In many cases, the clinical signs of illness do not become clear until the reserves are depleted.

However, today, only a few people still have healthy, fully-functional body systems. Therefore, we should pay the utmost attention to the soil and its biological conditions and plant life because it must be considered our “external metabolic apparatus.” This is the basis for our internal metabolism, which supplies and controls all parts of the body and, to a large extent, decides between well-being and misery.

One of its main tasks is to maintain the predominance of the potassium group over the sodium group (Rudolph Keller), which is how these groups organized themselves for greater development of organ cells during the formation of the animal world and right up through the development of the human brain (Tables 1-3). A brief replication of this process can be observed during the development of the human “fruit” in the womb and even a half year after its birth, up through the formation of the potassium majority in its organs and through the development of its higher brain centers.

The most essential substances that the soil uses in large amounts, yet in harmonious order, are nitrogen, phosphoric acid and potassium. The most important trace elements are manganese, iodine, cobalt, copper, zinc, iron, etc. The first three substances are in the soil in the following proportion: 4 – 10 – 6. These three, as well as manganese cobalt, copper and iron belong to the potassium group and are charged with positive electricity.

Nitrogen is the most important element of the egg white (important for development and growth of all living cells and tissues). The mineral nitrogen, which dissolves as nitrate (salt from potassium nitrate) into the fluid in the soil, is probably the only mineral that can move freely. To retain fertility, nature amasses organic substances so that the roots can develop freely. In addition, healthy, beneficial micro-organisms (smallest forms of life) are very important for using their enzymes² to bring the minerals into

the right “composition” and solution. The activity in the roots that leads to the creation of the building blocks of plants is still a biological mystery.

Table 1
Mineral content of the entire body per kg at various ages by A. Sohl. Mineral Metabolism, 1939, p. 19-20
 The potassium group increases during development and growth; the sodium group decreases.

<i>Extracellular</i>						<i>Intracellular</i>				
	Sodium (Na)		Chlorine (Cl)		Water	Potassium (K)		Phosphorous (P)		Fat
Entire Body	Gm	mEq	Gm	mEq	%	Gm	mEq	Gm	mEq	%
Fetus 3-4 months	--	--	2.7	76	93	--	--	2.14	69	0.5
Fetus 5 months	2.58	112	2.5	70	91	2.00	51	3.58	115	1.2
Fetus 6 months	2.16	94	2.5	70	87	1.62	41	3.82	123	2.5
Fetus 7 months	2.14	93	2.6	73	86	1.88	48	3.82	123	2.5
Premature 7 months	2.42	105	2.7	75	85	1.71	44	3.82	123	3.0
Newborn	1.78	78	2.0	56	80	1.90	49	3.40	174	12.0
Adult	1.09	48	1.56	42	72	2.65	68	11.6	374	18.0

Table 2
 by A. Sohl, p. 73
 shows the significance of the potassium/sodium ratio in animal milk going from lesser animals to higher, up to humans.

	Rat Milk	Cow Milk	Human Milk
K/Na	43/33 = 1.30	39.5/26.5 = 1.49	12.2/5.0 = 2.44

Table 3
 In sickness (reverse ratio), there is an increase in the sodium group and decrease in the potassium group (regression into embryonic stage)

	Potassium Group				Sodium Group		
	K ₂ O	P ₂ O ₅	MgO	CaO	Na ₂ O	Cl	SO ₃
Normal Milk	20.6	26.4	2.72	21.55	13.02	15.58	3.66
“Salty” Milk, <i>Bögold and Stein</i> (pathological)	10.96	15.63	2.16	11.7	33.77	25.23	6.73
<i>Hashimoto</i> (pathological)	8.94	17.38	1.74	7.44	36.54	33.63	1.34
Utter Catarrh (<i>Schrodt</i>)	10.56	24.56	2.7	16.77	24.92	24.52	1.56
Tuberculosis, Cow, (<i>Storch</i>)	10.87	7.1	1.27	4.34	40.6	--	5.08
a) Normal Udder	12.64	22.22	2.1	--	21.79	27.99	--
b) Tuberculosis Udder	5.08	8.76	0.79	--	42.37	44.64	--

All of nature is governed by balance and rhythm, which we must recognize and sustain. This balance and rhythm cannot be disturbed without consequences. Just as with plants, excess and deficiency in the soil are equally damaging. An excess of potassium or magnesium in plants can actually mean a calcium deficiency. Millions of years of development in nature have lead to ironclad laws. Therefore, we must endeavor to recognize these laws as much as possible and act in accordance with them. Yet modern civilization takes very little heed of them. Only the tempo in individual countries is different. This unfortunate development is also expressed in our food, food storage and food distribution.

The damage starts from the ground up, where (fake) synthetic fertilization causes displacement of minerals, change of the bacterial flora, migration of earthworms, and massive erosion of the topsoil. At first, this stimulates plant growth, but ultimately leads to their degradation. The poisonous sprays to hold pests at bay bring further accumulation of poisons in the soil, in plants and fruits. The refinement of our food deactivates important mineral substances and especially their enzymes. Conserving food in canisters, dehydrated form, frozen or as powders kills off most of the living material. This is how our daily sustenance becomes a “dead material” with deficiencies in important minerals, plant hormones, vitamins and enzymes. No wonder that such penetrating disturbances of the biological balance are causing increasing degenerative (brought about by degradation) diseases—not only cancer but also arthritis, high blood pressure, early arteriosclerosis, heart and psychological disorders.

The rapidly developed tall crop in America shows the increase of degenerative diseases—especially cancer—at an alarming rate. According to official statistics from 1936, 1 in 13 Americans died of cancer; 17 years later, it was 1 in 4. In my opinion, no more than a fifth of this excessive increase can be credited to refined diagnostic abilities (recognition of diseases). All kinds of people have donated millions for the study of cancer, but science has lost the race against increasing cancer illnesses due to the damage caused by civilization. That probably will not change until scientific endeavors put the solution for the cancer problem in the right place: metabolic disturbances, and the degenerative diseases of the entire body that these disturbances cause.

What should get our endeavors on the right track now? My first thought was: Cancer cannot develop in a healthy body. In experiments on animals, it is shown that cancer-causing materials are capable of creating acute or chronic contamination, and as a consequence—cancer. That indicates that there must be an initial contamination (especially of the liver, kidneys, spleen, glands). *Yamagiwa* (1915) and *Itschikawa* (1918 to 1921) could evoke chronic toxicity after long-term (8 months) exposure of animals through their skin and induce cancer.

Therefore, there are two disease processes required for the development of cancer: one local and one general. The local condition was the damage introduced through the animals’ skin; the general condition was the alterations of the internal organs with repercussions on the metabolism. The local disease activities can be triggered in our bodies through: embryonic leftovers, chronically damaged cells, crossover cells, or cells that have been pushed out of order and normal activity. With normal metabolism, they are harmless; with abnormal metabolism, which approaches embryonic metabolism, these cells begin to change (mutation), and this mutation starts its accelerated way of life with the contamination of the host body.

Various researchers found that there was a metabolic disturbance even before the tumor development. *Strong* and *Francis* noticed a considerable decrease in hemoglobin (the pigment of the malpighian corpuscles of the blood) before the tumor emerged. Even more importantly, *Taylor* and *Pollack’s* experiments showed that the transplanted tumor tissue has a direct influence on the blood-building system and the hemoglobin level.

Yet, for the problem solution suggested here, it is important to note that the chemical composition of tumor cells is consistent and more uniform than normal cells, regardless of the source of the tumor or which type of tissue it is. Even in its enzyme functions, the malignant tumor is one independent unit and maintains this unity; that means it remains independent and does not hold any regard for the host body. Not only does it alter the exchange with blood and tissue, it also poisons the host body; this is how it cripples the healing apparatus and hinders healing (regulation) through hormonal metabolism or the internal organ nervous system.

With its high negative electrical charge, the tumor (cancer) maintains its status of power within the positively charged, healthy tissue, protects the capability (activity) of its mass and actually confers these characteristics in increasingly rapid succession. All normal tissue has a specific interplay with enzymes (enzyme ensemble) that corresponds to that tissue's own task (individual activity). Without a doubt, the tumors growing in various tissues still have the same quality of enzymes as the original tissue, but in a different quantitative formation and with different active impact.

Even the range of vitamins—now considered co-enzymes—in the tumors is in lower quantities than the original tissue. In the malignant growth, everything is uniform, less diverse and less differentiated.³ *J. Greenstein* gives a practical example: the enzyme model of a normal stomach lining and a normal liver is very different in quantity and quality. In contrast, the enzyme model in stomach cancer and liver tumors is very similar. In 1925, *C.F. Cori* and *G.T. Cori* already found the same lactic acid content and sugar content in sarcoma and carcinoma—two completely different types of tumors. In cancer tissue, there is no time for high differentiation; everything has to move fast.

In humans, the local part of cancer development can appear in all organs, but with a healthy metabolism, it is harmless. With the general part or the gradual contamination of the body through alteration of the soil, the nutrients and the metabolism with partial regression into the embryonic state, the point of peril is reached more quickly in those organs that are damaged through diseases (stimulants) or hereditary predisposition or both.

The life in the soil and the living plants and fruits for our daily sustenance can be described as the fundamental “external metabolism.” This is inextricably connected with our “internal metabolism.” Both are the foundation for health and sickness.

¹ Resorption = Uptake of materials into the blood and lymph channels

² Enzyme = Material that promotes metabolic conversions

³ (*J. Greenstein*, “Biography of Cancer,” 1954, p. 361)