

## **Dr. Krebs speech on B17 at the Cancer control convention.**

### **The Nature of Cancer**

**by Ernst Krebs, Jr.**

(Presented before CCS Second annual Cancer Convention, Ambassador Hotel, Los Angeles, California )

It is certainly a pleasure to be here at the Second Annual Convention of the Cancer Control Society-an outgrowth, as you know, of the International Association of Cancer Victims and Friends.

As I look back through the years marketing the emergence of these two fine Societies, I can recall the number of miraculous victories we have had in those intervening years; that it is as true today as it was eleven years ago that Laetrile, Vitamin B17, is the first and last final hope in the prophylaxis in therapy of cancer in man and animals. The reason for this is that Laetrile is a vitamin. It is the 17th of the B vitamins.

We hear a great deal about its use in terminal cancer, but the time to start with vitamin B17 is now before the disease become clinical. The time to start is the same with any matter of adequate nutrition and that is right now. You may start now by commencing to eat the seeds of all common fruits that you eat. The apricot and peach seed contain almost 2 percent of vitamin B17 by weight. The apple seed, although very small, is equally rich in Vitamin B17. So are the seeds of prunes, plums, cherries, and nectarines. The only common fruit on the hemisphere that lacks nitrilosidic seeds, are the citrus fruits. This lack has come about by artificial cultivation by breeding and hybridization, since the seeds of citrus fruits on the African continent still contain Vitamin B17.

Two more rich sources of Vitamin B17 are the simple cereal millet and buckwheat. Macadamia nuts, although expensive and exotic, are very rich in Vitamin B17 and so are bamboo shoots, mung beans, lima beans, butter beans and certain strains of garden peas. But for convenience, the simple source for your Vitamin B17 are the seeds of the common fruit.

We know something about the prophylactic dose of Vitamin B17. For example, we know the Hunza's represent a population that has been cancer free for over 900 years of its existence. This population has a natural diet, which supplies on the average between 50 to 75 milligrams of Vitamin B17 a day.

Hunzaland is a land that has sometimes been described as the "place where apricot is king." The Hunzakuts eat the fresh apricots for the three months they are in season and the remainder of the year they eat dried apricots. They never eat a dried apricot without enclosing the seed between them. This supplies them with better than average of 50 to 75 milligrams of Vitamin B17 a day.

There are many of us in the Western World who don't ingest this amount of Vitamin B17 in the course of an entire year. As a result we're in the midst of a fulminating deficiency of

Vitamin B17 or nitriloside, the anti-neoplastic vitamin. Its absence from our diets accounts for the fact that cancer on our population has reached such a pandemicsity as to account for its occurrence in one in every three American families. The occurrence is probably much greater than that because it is very late in its development when the cancer is detected.. Many who develop cancer are killed by accident or intercurrent diseases before the malignant process has become sufficiently advanced to cause them to have it diagnosed.

Cancer is a chronic, metabolic disease...that is obvious. It isn't an infectious disease, which is caused by bacteria or viruses. It is a disease that is metabolic in origin. A metabolic disease is a disease that is linked with our utilization of food. Most metabolic diseases have as their basis specific vitamins and minerals.

Let me give you a categorical or axiomatic truth to take with you. One that is totally uncontradictable, scientifically, historically and in every other way. This is that no chronic or metabolic disease in the history of medicines has ever been prevented or cured, except by factors normal to the diet or normal to the animal economy. There have been many erstwhile fatal devastating diseases that now have become virtually unknown. They have been prevented and cured by ingesting the dietary factors and thereby preventing the deficiencies, which accounted for these diseases.

The one in which you are probably most familiar is Scurvy. A fatal disease that killed mankind by the thousands. A disease that would sometimes wipe out an entire Polar expedition or accounted for about 50 percent mortality among the Crusaders. A disease that is totally prevented and totally cured by Vitamin C or ascorbic acid a factor normal to an adequate diet. As you know so well from your school days that Great Britain acquired the dominion of the seas, by empirically discovering that by adding lime or other citrus juices to the provisions of the British mariners the curse of scurvy from the British sea power was removed. Therefore, Britain competitively gained the ascendancy on the seas. Prior to the incorporation of Vitamin C into their diets it wasn't uncommon for three-fourths of the crew to become seriously ill by the end of a voyage and then those who didn't die would mysteriously recover after hitting shore because they would have access to fresh fruits and vegetables rich in Vitamin C.

Then we have Pernicious Anemia, which had a mortality rate of 98 or 99 percent. And no medical modality under the sun could touch it. Arsenic and its salts, strychnine, iron and hundreds of other remedies were tried, but to no avail until the researchers Drs. Murphy, Shipple and Minot commenced their classical studies on the relationship of Pernicious Anemia to dietary deficiency.

While working at the University of California they discovered a very simple remedy for preventing and curing this disease. They simply said to their patients, "go down to your butcher shop and get a quarter pound of fresh liver. Grind it up and take a tablespoon everyday and take the quarter pound and cook it very lightly and just singe the surface and use this as a ration for three days." And when the patients followed this advice without exception, those with Pernicious Anemia made complete recoveries. Despite this these men were censored by the Medical Establishment at the time and were criticized for engaging in what was alleged to be "Medical Quackery."

The medical establishment's argument was: How can respectable doctors advise people with a disease that has a 99 percent mortality rate to ignore all of the established drugs of medical science and go down to the butcher shop and buy some raw liver and take this and expect this to cure a disease that nothing else had cured? Well, raw liver did cure the disease and raw liver did prevent it.

As the chemistry of raw liver was studied it was discovered that the factors responsible were Vitamin B12 and Folic Acid. So Vitamin B12 and Folic Acid are now a part of our normal dietary experience.

So in 1974, the uninformed, the unimaginative and some of the illiterate are concerned with what to them is a preposterous idea that by eating seed of fruit you can prevent a disease that carries a mortality rate almost as high as that once carried by pernicious Anemia. But scientific truth isn't dependant upon credibility or lack of it. The scientific reality either is or isn't. And this is the scientific reality that the seeds of all common fruits (except citrus) contain Vitamin B17, an anti cancer vitamin. If we ingest proper quantities for these vitamin either in the pure form or through ingesting the nitrilosidic foods we will be able to prevent this decease just as surely as we are able to prevent Scurvy by the use of vitamin C or Pernicious Anemia by the use of vitamin B12.

There was another disease that is a metabolic or chronic nature and this is Pellagra. At one time it was so endemic in certain parts of the world, particularly the American southwest, that there were entire hospitals given to the treatment of Pellagrans.

The great Sir William Osler in his "Principles and Practices of Medicine" written at the turn of this century, said of Pellagra, "I was at Lenoir, North Carolina during one winter and this winter I visited the Lenoir home for the colored insane and there 75 percent of the inmates died from the disease. It ran rampant through this institution and convinced me beyond any doubt that pellagra is a virus that is infectious."

And then came the fine works of the United States Public Health Service Surgeon, Dr. Goldberger, who showed conclusively that the occurrence of Pellagra was related with a deficiency of fresh green material in the diet.. So Dr. Goldberger approached this problem first by the use of Brewer's Yeast, which would completely prevent and cure pellagra. Further studies then showed that the factor in Brewer's yeast that was most determinate of this effect was niacin, Vitamin B3.

So another fatal chronic metabolic disease found total resolution and cure through factors normal to the normal diet or the animal economy. We know that cancer is no exception to this great generalization and to date has known no exception. That is that every chronic of metabolic disease that will ever be controlled by man, must be controlled by means that are a part of the biological experience of the organism. Chronic and metabolic diseases can never be controlled, prevented or cured by factors foreign to the biological experience of the organism.

Let's make it clear by what we mean by biological experience to the organism. We refer to the experience the of the organism has had over the million years of its evolution. The organism was exposed to water, air, carbohydrates, fats, amino acids and various salts and

these factors became integrated with the evolving organism. And the evolving organism became integrated with these factors. And these factors with the evolving organism were incorporated into the beautiful machinery of "life." And the vital mechanism of life runs just like the parts of a fine Swiss watch only infinitely more complex.

Dr. Thomas of the Sloan Kettering Institute in a recent article in Science said, "I'm thankful that my liver works without my knowledge. I do not have the brains to commence to do one millionth of what my liver does. These things are automatic. So I swallow the food and this infinitely complex machinery takes care of itself. "We could spend years telling you about this magnificent machinery and we still wouldn't touch the surface of this infinite ocean. We do know that there is nothing that we can do to improve upon it. We do know that in the history of medicine there never had been found anything foreign to the indwelling requirements of this machinery that will do the living organism any good. And we can go further to say there has never in the history of medicine been found anything foreign to the indwelling machinery of this infinitely complex system that will not harm the organism. There isn't such a thing as a factor foreign to the biological experience that is not harmful to the organism.

There is nothing we can add to our air water and food to improve it. The most we can do is to look at some of our devitalized food and hopefully attempt to replace that which was capriciously removed from it in the process of food refining, manipulation or cooking. There is absolutely nothing that we can add to that food to improve it. These things are basic.

There isn't any chemical or drug that medical science could suggest that would make us healthier or better adjusted or wiser or give us hope for a longer life. There isn't a single drug or molecule in nature that can unless that molecule exists in normal food. And this probably explains one of the reasons why there is so much resistance to Laetrile, B17

The application of this science brings us face to face with a lot of things we do not like to face. We have become over-civilized. We are inclined in our delusory thinking to feel that here and there must be a magic out. That there must be a simple way, a short cut, that somehow or other medical science or some other man-made forces beyond our comprehension will do for us those things we must do for ourselves. And it is slowly dawning on us, perhaps too slowly that this thinking is fraudulent; that it is unsound.

It isn't in the field of cancer alone where we see this form of charlatanism or quackery. We see it in the area of the human mind. The futile attempts to spare man from the realities that surround him. Above all to spare him from the fact that he is accountable to himself and to his God and that there is no short cut in this accountability.

It's real at the physical level. And when we are eating less than adequate food, we know better, And when we continue we are engaged in sin, this is the basis for practically all of our physical and mental and spiritual difficulties. We had better be realistic about it. We have them because we don't do the right things. And when we fail in view of our knowledge now to take Vitamin B17 this is a sin against our physical nature. And when we develop cancer we will receive the results of this transgression in the old fashion Biblical sense that the "wages of sin are death."

If you are not getting Vitamin B17 in your food the best way to get it is in the pure form. If you have cancer, the most important single consideration is to get the maximum amount of Vitamin B17 into your body in the shortest period of time. This is secondary to the medical skill involved in administering it, which is relatively minimal. Then very often there are many supportive measures that are taken in the management of the cancer patient such as the use of materials to build up the blood, to raise or lower the blood pressure or to relieve the pain.

Pancreatic enzymes and vegetable enzymes are part of the supportive theory. You have the papaya melons as the source of the enzyme Papain and pineapple as a source of the enzyme Bromelain. The demasking effect of these enzymes against the pericellular layer of the malignant cell is something very concrete in the immunology of cancer. Now I prefer, rather than advising the use of bromelain or papaya tablets that the individual seeking these enzymes get them directly from the fresh ripe pineapple and papaya fruit. As much as half a pineapple a day should be ingested.

This is the way to go. You have nothing to lose by eating fresh pineapple and papaya melons. Nothing to lose by eating millet, the seeds of all the common fruits and whole fresh foods.

Dietary deficiencies arrive primarily from eating less than whole food. This is why the Federal and State governments have made mandatory the artificial enrichment of white flour. Look at any loaf of white bread or white flour that has been enriched by the addition of crystalline Vitamin B1, Vitamin B2, niacin, iron and all the rest. What a commentary on the stupidity of our civilization that we put good food through a process that defects it of its essential nutrients and then enforced by the Government mandate requirements that say that we must restore to this food some of the things that have been processed out. One of the most critical factors is removed and that is wheat germ, which contains the Vitamin E and the poly unsaturated fatty acids. it would not be necessary to take it in supplementation if our foods were not manipulated in a way to remove this.

Now something about supplementation's in addition to the Vitamin B17. We can't think in terms of just one vitamin. We get an adequate diet by eating as wide a variety of whole natural foods as possible and as close to their growing period as we can possibly obtain them.

There are laetrile therapists who recommend two or three grams of ascorbic acid or Vitamin C in conjunction with the Laetrile program. This is a very moderate recommendation and we can all take up to seven or eight grams of Vitamin C without any problems. This is about the same amount as the higher primates such as the gorilla on a pound to pound basis ingest between five to six grams of Vitamin C a day in their normal habitat. Incidentally, the gorilla in its natural habitat eats about 100 to 125 milligrams of Vitamin B17 a day, too. Like the population of Hunzaland, these gorillas are free of cancer, so are bears in their normal habitat. out in the wilds they don't develop cancer.

In the San Diego Zoo there was a cage of about ten bears and out of the ten, seven of them developed cancer. To some this was a sign that some mysterious bear cancer virus was loose, but, it wasn't that at all. In the wild state the bears are omnivores and they eat a lot of wild nitrilosidic berries. Almost all wild fruits are nitrilosidic.

Keep in mind how far we have drifted from the dietary requirements of the machinery that we now possess. When we evolved and came to our maturity as organisms about 8,000 or 9,000 years ago the world witnessed the advent of agriculture and horticulture came a little later. The millions of years prior to that time we ate the cherries, apricots, apples, prunes and the rest of the fruits. They had Vitamin B17 not only within the seeds, but in the flesh, too. Today only wild fruit contain the Vitamin B17, but in the process of hybridization it has been removed.

The fruit that we eat today is the product of years of manipulation and cultivation for lushness and abundance and so forth, so the meat to that fruit is free of Vitamin B17. To meet our indwelling needs of Vitamin B17 we must either eat the fruit seed in reasonable quantity or begin supplementing our diet with Vitamin B17 tablets. We can't of course, do that at present, but we hope to see before very long Vitamin B17 available so that we can prevent cancer in the same way we prevent scurvy.

Several new books are coming out on Laetrile. Both are written by non-medical men - World Without Cancer by Edward Griffin and Vitamin B17: Forbidden Weapon Against Cancer by Mike Culbert. We are all laymen in the field of cancer. There are more laymen in the Laetrile movement who know more about cancer than some of our most prestigious experts in our most prestigious institutions. These laymen know enough about it to keep alive and not die from it. So you're a pretty rotten expert if you know so little about it as to succumb from it or have your family succumb from it.

We have many case histories of people that have been helped by Laetrile. Both Alicia Buttons and Mary Henderson were terminal with oral pharyngeal cancer that has a mortality rate of 98-99 percent even in early diagnosis. Both made remarkable recoveries with Laetrile under the guidance of Dr. Hans Nieper in Germany.

You know we have been meeting ten or eleven years and you've been hearing this story. Each time after the meeting you had 360 days to go home and read newspapers, American Cancer Society Boiler Plate and so forth. In those ten years they haven't told you anything against Laetrile that makes any sense. You can be pretty sure they don't have anything against Laetrile because these people are very uninhibited and the area in which they are most uninhibited is in the area of simple lying.

If you have any questions about Laetrile, the more critical the better because we are dealing with solid science. We are dealing with a science that admits that there is no rational alternative in the ten years that have past since these meetings. Nothing has come about to do anything except to make more obvious the fact that Laetrile, Vitamin B17 is the answer to cancer.

Q. Will cooking millet destroy the Vitamin B17?

A. No, cooking doesn't destroy the Vitamin B17. Almost every food that we eat is better eaten raw. And when we cook a fruit we destroy the enzymes and wherever we have Vitamin B17 we have the accompanying enzyme B-glucosidase naturally. B-glucosidase is destroyed by heat, but Vitamin b17 is not destroyed by heat.

Is there any way in which a person may be deficient in the enzyme rhodanese?

The enzyme rhodanese is a normally occurring enzyme that converts cyanide to the non-toxic compound neocyanate and we evolved with the Rhodospirillum rubrum because the Vitamin B17 containing cyanide originally was so large a part of our diet. So far as we know there is no development of rhodanese deficiencies.

We must be very realistic that there is absolutely nothing we can do to alter this infinitely complex machinery of the cell and of life. All that we can do is to supply those components that are missing and then hope for the best. It's like being on the freeway with a Cadillac in which the hood is locked and you run out of gas. Now all your knowledge of mechanics are going to be of no avail just pour gas in to the tank and step on the starter and hope for the best that the gas gets sucked into the motor. When the machinery of the cell begins to falter or fail you put in those factors normal to the operation of that machinery. Since we have no choice we allow the universe to take its course. We don't go on the presumption that we can successfully tamper with that infinite machinery.

Q. Do you believe that we should take the Wobenzym enzymes along with the Laetrile?

Yes, they are good, except I think they are slightly overpriced and I strongly recommend the American Viokase put out by Viobin in Menticello, Illinois.

Q. Is Laetrile a prescription item in Mexico or Canada?

I know that it is legal in Mexico, but I don't know the exact situation in Canada at the moment. You may get it without a prescription in Mexico.

Q. If you get the benefits from the seeds of fruits for prevention, why is it necessary to take the more concentrated forms?

Like everything else in science, it is self-answering. It isn't necessary, so eat the seeds and you can get an adequacy of Vitamin B17.

Q. The fact that cancer is a metabolic disease, what role does pollution have in that process?

Pollutants harm the liver and the liver is a great detoxifying organ of the body. If the liver is detoxifying an excess of estrogen, for example, and capacity of the liver is impaired by pollutants, the estrogen level then may reach a concentration sufficient to induce cancer. If we are eating apples that have been sprayed with arsenic and we eat enough of these apples, the arsenic may produce a hepatic chirosis that again will impair the capacity of the liver to detoxify certain carcinogens and thereby contribute to the development of cancer. If we are receiving a very high concentrating of Vitamin B17 this will offset the possibility of developing cancer, but these pollutants still can kill us through producing cirrhosis of the liver and destroying other vital cells.

Q. Can the body handle inorganic Vitamin C?

The Vitamin C on the market is organic and contrary to what is sometimes believed is not synthetic. The Vitamin C that is produced in this country is produced by fermentation involving the growth of the mold *Streptomyces*. So it is a biosynthetic process. This is the cheapest and most efficient way to do it, although this is not a "complex."

Q. How many seeds should we eat?

I would say that 15 apricot seeds every other day would provide an adequacy and give quite a margin.

Q. If we are supposed to eat seeds, why aren't we supplied with teeth for breaking through the pits?

There are societies that have not become too corrupted by the sophistications of modern technology. These people are capable of biting through the pit. We have even seen small dogs break the pit and eat the seeds. Squirrels, chipmunks, bears, higher primates such as monkeys ordinarily do it.

Curators of zoos tell us when monkeys and apes are thrown fresh apricots, peaches and plums, in time, if they are thrown enough of them, they cease eating the sweet sugary fruit and they begin hoarding the pits. They manage to break open those pits. Primates will take them in hand and hammer them against a piece of concrete. Eating these seeds is universal among the nomads and among the higher animals.

Q. How do you keep the seeds once they are out of the pit?

You may keep the seeds indefinitely if you keep them thermally sealed under refrigeration. If you don't keep them under refrigeration the Vitamin B17 won't deteriorate, but the unsaturated fatty acids will turn rancid.

Q. Does Vitamin B17 help sickle Cell Anemia?

A lot of fine work is being done on this. Robert Houston has done some very brilliant studies along these lines and he has published several top-rate papers. Sickle Cell anemia crises is the result of a fulminating deficiency of Vitamin B17 and it occurs in Americans of African origin, who upon leaving the African continent become removed from a dietary source of vitamin B17. Sickle Cell crisis is a Vitamin B17 deficiency disease in the same way that Pernicious Anemia is a Vitamin B12, Folic Acid deficiency disease.

Q. Do almonds contain cyanide?

The Romans found that here and there almond trees appeared which had almonds that were completely sweet and no longer had any trace of bitterness. That bitterness is due to the presence of Vitamin B17. So they proceeded to destroy all of the almond trees that had any trace of bitterness and propagated those almond trees that just yielded the sweet kernels. So those almonds that have come to us in the Western World are very rich in the enzyme B-glucosidase, but deficient in Vitamin B17. On the other hand the eastern part of the world,

such as the Ukraine, Soviet Union and Red China, have predominately the original bitter almond, very rich in Vitamin B17

Q. Is it ok. to eat all the legumes raw?

No, it isn't. It is good to cook most beans. The cooking doesn't destroy the Vitamin B17 content. Although beans eaten raw in small quantities are quite acceptable as food.

Q. Is it best to take all 15 apricot kernels at once?

Yes. I should add that it is a good idea to grind them up in a nut grinder. One teaspoon of the material is equivalent to seven of eight seeds. Take two teaspoonfuls and lace a fruit salad or oatmeal or whatever you are eating. You can incorporate it into muffins or use it a hundred different ways. You can take it straight or you can eat it and then follow it with a little honey because of the persisting bitterness.

Q. Are the broad beans or visa fava high in cyanide?

Yes, they are splendid. It was one of the staples in the diet of the Roman legions. The legionnaires not only ate broad beans, but they fed them to their horses. This made for a very vigorous infantry in Calvary. Visa fava are also known as Italian beans or flat beans.

Q. Is Vitamin B17 helpful against devastating effects of excessive quantities of environmental or medical radiation?

No, and the reason for it is a very common sense one. In all of the exigencies of our evolution and natural selection, the presence of radiation in such horrible concentrations was never anticipated. The organism may be beset with such onslaught and there are no mechanisms including Vitamin B17 to medicate the deadly effects of such excess radiation. This is one of the most horrible assaults on living tissues. The most horrible assaults that living tissue can sustain, because it destroys not only the individual of one generation, but it may cripple, if not extinguish the immortal germ plasma, on which the continuity of the species itself relies.

From a mountaintop land where cancer and heart disease are unknown, come some down-to-earth ideas about eating for health.

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**Death Rides a Slow Bus in Hunza by Jane Kinderlehrer**

How would you like to live in a land where cancer has not yet been invented? A land where an optometrist discovers to his amazement that everyone has perfect 20-20 vision? A land where cardiologists cannot find a single trace of coronary heart disease? How would you like to live in a land where no one ever gets ulcers, appendicitis or gout? A land where men of 80 and 90 father children, and there's nothing unusual about men and women enjoying vigorous life at the age of 100 or 120?

We see a lot of hands going up. Fine. But first, you have to answer a few more questions before setting out for a place called Hunza, a tiny country hidden in the mountain passes of northwest Pakistan.

Are you willing to live 20,000 feet up in the mountains, almost completely out of touch with the rest of the world? Are you ready to go outside in every kind of weather to tend your small mountainside garden, while keeping your ears open for an impending avalanche? Are you prepared to give up not only every luxury of civilization, but even reading and writing?

We see a lot of hands going down. But if you want the benefits of the pure air that whips by the icy cathedrals of the Himalayan Mountains, the pure water that trickles down from glaciers formed at 25,000 feet, and the mental and spiritual peace that comes from living in a land where there is no crime, taxes, social striving or generation gaps, no banks or stores-in fact, no money- where are you going to find it outside of Hunza?

But don't give up! Not yet, because there is still one more question to be answered. That is: are you prepared to eat the kind of food the Hunzas eat? If you are, then you can rightfully expect to give yourself at least some measure of the super health and resistance to degenerative disease which the Hunzakuts have enjoyed for 2,000 years.

What kind of exotic, ill-tasting grub do these Hunza people eat, you are wondering. Strange as it may sound, virtually everything the Hunzakuts eat is delectable to the western palate, and is readily available in the United States-at least if your shopping horizons do not begin and end at the supermarket.

Not only is the Hunza diet not exotic, but there's really nothing terribly mysterious about its health-promoting qualities. Everything we know about food and health, gathered both from clinical studies and the observation of scientists who have traveled throughout the world observing dietary practices and their relationship to health, tells us that it is to be expected that the Hunza diet will go a long way towards improving the total health of anyone, anywhere. The Hunza story is only one of the more dramatic examples of the miraculous health produced by a diet of fresh, natural unprocessed and unadulterated food.

All systems "Go" At 20,000 Feet

Maybe you're wondering: are the Hunzas really all that healthy? That was the question on the mind of cardiologists Dr. Paul D. White and Dr. Edward G. Toomey, who made the difficult trip up the mountain paths to Hunza, toting along with them a portable, battery-operated electrocardiograph. In the American Heart Journal for December, 1964, the doctors say they used the equipment to study 25 Hunza men, who were, "on fairly good evidence, between 90 and 110 years old." Blood pressure and cholesterol levels were also tested. Hwy reported that not one of these men showed a single sign of coronary heart disease, high blood pressure or high cholesterol.

An optometrist, Dr. Allen E. Banik, also made the journey to Hunza to see for himself if the people were as healthy as they were reputed to be, and published his report in Hunza Land (Whitehorn Publishing Co., 1960). "It wasn't long before I discovered that everything that I

had read about perpetual life and health in this tiny country is true, "Dr. Banik declared. "I examined the eyes of some of Hunza's oldest citizens and found them to be perfect."

Beyond more freedom from disease, many observers have been startled by the positive side of Hunza health. Dr. Banik, for example, relates that "many Hunza people are so strong that in the winter they exercise by breaking holes in the ice-covered streams and take a swim down under the ice." Other intrepid visitors who have been there report their amazement at seeing men 80,90,and 100 years old repairing the always- crumbling rocky roads, and lifting large stones and boulders to repair the retaining walls around their terrace gardens. The oldsters think nothing of playing a competitive game of volleyball in the hot sun against men 50 years their junior, and even take part in wild games of polo that are so violent they would make an ice hockey fan shudder.

The energy and endurance of the Hunzakuts can probably be credited as much to what they don't eat as what they do eat. First of all, they don't eat a great deal of anything. The United States Department of Agriculture estimates that the average daily food intake for Americans of all ages amounts to 3,300 calories, with 100 grams of protein, 157 grams of fat and 380 grams of carbohydrates, In contrast, studies by Pakistani doctors show that adult males of Hunza consume a little more than 1.900 calories daily, with only 50 grams of protein, 36 grams of fat, and 354 grams of carbohydrates. Both the protein and fat are largely of vegetable origin (Dr. Alexander Leaf, National Geographic, January, 1973).

That amounts to just half the protein , one-third the fat, but about the same amount of carbohydrates that we Americans eat. Of course, the carbohydrate that the Hunzakuts eat is undefined or complex carbohydrate found in fruits, vegetables and grains, while we Americans largely eat our carbohydrates in the form of nutritionless white sugar and refined flour.

Needless to say, the Hunzakuts eat no processed food. Everything is as fresh as it can possibly be, and in its original unsalted state. The only "processing" consists of drying some fresh fruits in the sun, and making butter and cheese out of milk. No chemicals or artificial fertilizers are used in their gardens. In fact, it is against the law of Hunza to spray gardens with pesticides. Renee Taylor, in her book Hunza health secrets( Prentice-Hall 1964) says that the Mir,or ruler of Hunza, was recently instructed by Pakistani authorities to spray the orchards of Hunza with pesticide, to protect them from an expected invasion of insects. But the Hunzas would have none of it. They refused to use the toxic pesticide, and instead sprayed their trees with a mixture of water and ashes, which adequately protected the trees without poisoning the fruit and the entire environment. In a word, the Hunzas eat as they live -organically.

### **Apricots Are Hunza Gold**

Of all their organically-grown food, perhaps their favorite, and one of their dietary mainstays, is the apricot. Apricot orchards are seen everywhere in Hunza, and a family economic stability is measured by the number of trees they have under cultivation.

They eat their apricots fresh in season, and dry a great deal more in the sun for eating throughout the long cold winter. They puree the dried apricots and mix them with snow to

make ice cream. Like their apricot jam, this ice cream needs no sugar because the apricots are so sweet naturally.

But that is only the beginning. The Hunzas cut the pits from the fruits, crack them, and remove the almond-like nuts. The women hand grind these kernels with stone mortars, then squeeze the meal between a hand stone and a flat rock to express the oil. The oil is used in cooking, for fuel, as a salad dressing on fresh garden greens, and even as a facial lotion ( Renee Taylor says Hunza women have beautiful complexions).

### **The Apricot Kernel Anti-Cancer Theory**

Do these kernels have important protective powers which in some way play an important role in the extraordinary health and longevity of the Hunza people? The evidence suggests they very well might.

Cancer and arthritis are both very rare among the Taos (New Mexico) Pueblo Indians. Their traditional beverage is made from the group kernels of cherries, peaches and apricots. Robert G. Houston told PREVENTION that he enjoyed this beverage when he was in New Mexico gathering material for a book dealing blender shakes based on an Indian recipe.

Into a glass of milk or juice, he mixed a tablespoon of honey with freshly ground apricot kernels (1/4 of an ounce or two dozen kernels) which had been roasted for 10 minutes at 300. It is vitally important to roast the kernels first. Houston points out, "in order to insure safety when you are using the pits in such quantities." roasting destroys enzymes which could upset your stomach if you eat too many at one time. In any event the drink was so delicious that Houston kept having it daily. On the third day of drinking this concoction, Houston says that a funny thing happened. Two little benign skin growths on his arm , which formerly were pink had turned brown. The next day, he noticed that the growths were black and shriveled. On the seventh morning, the smaller more recent growths had vanished completely and the larger one, about the size of a grain of rice, had simply fallen off.

Houston says that two of his friends have since tried the apricot shakes and report similar elimination of benign skin growths in one or two weeks.

What is there in apricot pits that could produce this remarkable effect? Some foods, especially the kernels of certain fruits and grains, contain elements known as the nitrilosides (also known as amygdalin or vitamin B 17) says Dr. Ernst T. Krebs, Jr., biochemist and co-discoverer of Laetrile, a controversial cancer treatment (Laetrile is the proprietary name for one nitriloside). Nitrilosides, says Dr. Krebs, are non-toxic water-soluble, accessory food factors found in abundance in the seeds of almost all fruits. They are also found in over 100 other plants. Wherever primitive people have been found to have exceptional health, with marked absence of malignant or degenerative disease, their diet has been shown to be high in the naturally occurring nitrilosides, Dr. Krebs maintains.

"These nitrilosides just might be to cancer what vitamin C is to scurvy, what niacin is to pellagra, what vitamin B12 and folic acid are to pernicious anemia," says Dr Krebs (Cancer News Journal, May/August, 1970).

There are other common foods (all seeds) which provide a goodly supply of this protective factor. Millet and buckwheat, both of which the Hunzakuts eat in abundance, are two. Lentils, Mung beans and alfalfa, when sprouted, provide 50 times more nitriloxide than does the mature plant, Dr. Krebs points out. And the Hunzas, as you might expect, sprout all of their seeds, as well as using them in other ways. Since other essential protective elements are increased in the sprouting of such seeds, young sprouts are excellent foods which give us more life-giving values than most of us realize.

### **Apricots Rich in vitamin A and Iron**

Aside from whatever anti-cancer properties the seeds of apricots may offer, the fruit itself is exceptional in its own right. There is probably no fruit which is as nourishing as the apricot. When they are dried, and most of the moisture removed, the concentration of nutrients becomes even greater. A generous handful of dried apricots (3 1/2 ounces) is packed with nearly 11,000 units of vitamin A, or more than twice the recommended daily allowance. In fact, if this much vitamin A was put into a capsule the FDA would arrest the person selling it, because they consider this amount both "useless" and "potentially dangerous." The Hunzas eat it every day. Dried apricots also contain a great deal of iron, potassium and natural food fiber.

### **The Style For Longer and Better Life**

Besides apricots, the Hunzas also grow and enjoy apples, pears, peaches, mulberries, black and red cherries, and grapes. From these fruits, the Hunzas get all the vitamin C they need, as well as the other nutritional richness of fresh fruit, including energy from the fruit sugars. From the grapes, they also make a light red wine that helps make their simple fare into more of a real "meal."

### **The World's Freshest Bread**

The bread which accompanies each meal enjoyed by the Hunza's, and sometimes forms the mainstay of the meal, is called "chappati" - and is quite different from any bread that we are used to. The grain is kept intact as long as possible, and is ground at the very last moment, the housewife grinds only as much as she needs for the next meal, and kneads again and again with water- no yeast! She then beats it into very thin, flat pancakes similar to the tortillas of the Mexican Indians,

Chappatis can be made from wheat, barley, buckwheat or millet, So although chappati is something new to us, the ingredients are all familiar and easily available. Sometimes the flours are mixed together and baked in several shapes, small or large, depending on the occasion.

While bread baking at home in our country is practically a lost art because of the time involved, a surprising feature about chappatis is the incredibly short "baking time, if you can call it baking at all. The dough is simply placed on the grill for hardly more than a moment and it is finished.

"Just long enough to grow warm and no longer taste raw". Dr. Ralph Bircher noted in his book on Hunzas published by Huber in Bern, Switzerland. "No more effective method of preserving the health value of the grain exists and the taste is excellent even without butter of jam, " Dr. Bircher notes.

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