

# Education News



ISSUE 13 | FROM THE NUTRIGOLD NUTRITIONAL UPDATE SERVICE

## A NUTRITIONAL APPROACH TO INFLUENCE CANCER

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This Newsletter provides details of a nutritional programme for cancer sufferers that has been arrived at after careful analysis of the available scientific research and which has been tested in use over an 8-year period (1998-2006) by the Nutritional Cancer Therapy Trust. Because I designed the therapy for them, the Trust gave it the name "The Plaskett Therapy". This programme includes many foods and nutrients that are known to have an anti-cancer effect according to research published in reputable scientific and medical journals.

The author, a medical research scientist with long knowledge and experience of nutritional medicine, put them together on the basis of published research information. This account specifically avoids making any claim on the part of the author to treat or to cure cancer. It offers information but definitely does not constitute medical advice for any individual cancer sufferer. Nonetheless the programme disclosed and discussed herein will be referred to as a "therapy" because its intent is to help the condition of cancer sufferers by altering the body biochemistry in beneficial ways. The distinct hope is there that this may proceed to the point where the cancerous process is reversed. Observation of those who have used the therapy indicates that this may occur with sufficient frequency to justify real therapeutic interest. Indeed, the author is writing this because of his seriously held opinion that a great many cases of cancer, even cases that are terminal under orthodox medicine, can be reversed with the use of this therapy.



### WHY USE NUTRITION IN CANCER?

Serious interest in the potential for nutritional medicine in cancer therapy is more than justified by the severe limitations of current forms of cancer treatment with orthodox medicine. Although there is much that these therapies can achieve, huge numbers of patients are being left eventually with no further treatment options and go on to die. Moreover, there have been repeated and widespread accounts in the scientific and medical literature that nutritional factors powerfully influence the development and



growth of cancer. Many would say that, given the full weight of scientific evidence, the health professions have been very remiss in not carefully investigating the potential power of nutrition as cancer treatment. Given the potential of nutritional therapy the determination to avoid investigating it seems tantamount to letting the public down.

### WHY IS NUTRITIONAL TREATMENT NOT BEING USED WIDELY?

Money and decision-making power in cancer research is in the hands of the orthodox medical profession. That profession seems greatly committed to the currently standard techniques of surgery, radiotherapy and chemotherapy and very little else. Those who would like to advance the idea that other forms of therapy, like the nutritional approach, should be given a full and fair trial usually report a very negative response. Government sources of funding and charitable sources alike usually refer applications for such research funds to arbiters who are in the orthodox profession. To those of us who are

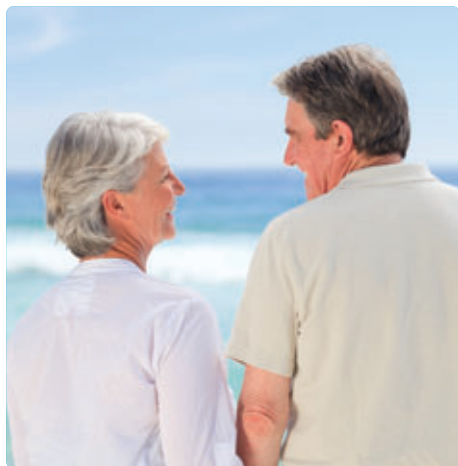
concerned with advancing new ideas in the field the seemingly inevitable negative outcome of such applications may appear to be determined largely by prejudice. The arbiters involved commonly have little knowledge of nutrition and the extent of its medical possibilities when applied as therapy. The fear may be that vested interests and protectionism within the orthodox profession and the drugs industry really determine these outcomes.

Whatever the cause, the result has been that all attempts to bring scientifically supported nutritional measures into the mainstream of cancer treatment by conducting trials have been consistently thwarted.

### DOES NUTRITIONAL CANCER TREATMENT HAVE A HISTORY?

In the nineteenth and early twentieth centuries there was much trouble with charlatans who would deliberately offer false remedies for cancer in order to profit fraudulently. This quite properly resulted in the UK in the Cancer Act of 1939 that prohibited and provided punishment

for offering unauthorised treatment for cancer. However, this Act that was intended to stop charlatans is now being used to suppress genuine and well-intentioned efforts to deal with cancer by means of alternative medicine. One can offer cancer patients nutritional advice designed to improve their health status but must avoid indicating that the advice might cure or alleviate their cancer. This has naturally acted as a deterrent to those who might otherwise try out new cancer treatments, even when they appear to have genuine potential. Similar onerous deterrents exist in the United States.



Nonetheless, some dedicated individuals have continued to put themselves at legal and professional risk in order to apply nutritional therapy to the cancer cause. These are too numerous to enumerate. Instead I list a few of those that are to some degree akin to the Plaskett Therapy in their approach and their medical philosophy. I make particular mention of the therapies of Kelley in the USA and Gerson in the USA and Mexico. I regard both of these as forerunners of my own approach. Both used a thoroughgoing approach to diet and nutrition. Both addressed the problem of protein digestion in cancer patients. Both used proteolytic enzymes for this purpose and Gerson used a

very low protein diet. Both employed detoxification procedures, a fact that places both of these therapies into the Naturopathic category. Both included coffee enemas in the list of detoxifying procedures. These are intended to detoxify the liver of the patient and to leave the patient in a better condition to detoxify the body as a whole. Both used "organ flushes", namely intensive procedures for detoxifying a particular organ. The liver and gallbladder received special attention, with Gerson employing a regular castor oil treatment for this purpose.

The Gerson therapy includes twelve or more glasses daily of freshly pressed fruit and vegetable juices, a daily vegetable soup, potassium/iodine supplements and thyroid gland extract. Gerson also used linseed oil (also known as "flaxseed oil"). This was a brilliant step suggestive of special insight at a time when the role of Omega-3 fatty acids was not understood. The therapy also includes focusing upon the acid/alkali balance and the sodium/potassium balance of the body, following the leads provided earlier by Cope, Reich and Barefoot. Others have also taken up the issue of the acid/alkali balance from around 1950 onwards.

The Gerson therapy in particular was well written up by its author. His book, "A Cancer Therapy - Results of 50 Cases", gives full details of the therapy and records some very favourable outcomes. These were often achieved in desperate and advanced cases. Nonetheless several sources have offered me the opinion that this therapy is less effective today than in Gerson's time and that Gerson's personal qualities as a caring doctor may have contributed to his level of success. It has also been suggested that today's cancer patients are more toxic than those of the 1940s or 50s and hence may require different or additional treatment measures. I give every possible credit to Gerson and Kelley for their vision in times when much of today's nutritional information was unavailable. I have never found it hard to accept the accounts of their success in many cases. These are the therapies that, in my view, constitute the principal nutritional cancer therapies of the past and both are still on offer in the present.

I also mention here the approaches of Dr Contreras in Mexico and Dr Budwig and Issels in Germany. These have little in common with Kelley and Gerson. Contreras, for example, focused upon use of shark cartilage, ozone therapy, ultraviolet blood irradiation, melatonin and laetrile as well as detoxification. The work of Budwig is nutritional but focuses upon using linseed oil in combination with cottage cheese. The latter is used as a source of sulphur amino acids, which it is, but clear evidence that the sulphur amino acids are of specific importance to the therapy seems to be lacking. At any rate this is an example of the very different forms that nutritional cancer therapy can take. Both Contreras and Budwig used some additional dietary provisions. Issel's treatment is based primarily upon anti-cancer vaccines but also employs a long list of supplementary nutrients and herbs including co-enzyme Q10 and Vitamin C.

## THE THEORY BEHIND THE PLASKETT THERAPY

I have not used agents such as laetrile, melatonin or ozone therapy. I tend to have doubts about therapeutic means of treatment that have nothing to do with the likely reasons for development of the primary tumour. Laetrile appears to have been effectively debunked as an anti-cancer agent and as a vitamin and shown to be severely toxic. Those supporting the concept behind ozone therapy need to explain why the body should require oxidizing therapy and anti-oxidant therapy at the same time, since they appear to have conflicting objectives.

I accept the view that was well stated by both Gerson and Kelley that cancer is a metabolic disease. That is to say that it comes about through faults in metabolism. This implies some degree of failure in the biochemical vitality of cells, resulting in a relative deficiency of cellular energy due to damage to enzyme systems or through a lack of catalysts needed for energy production. Damage to enzyme systems and, indeed, damage to the integrity of cell structure, can be brought about by toxic substances that react chemically with proteins, lipids and nucleic acids. Damage to nucleic acids seems to be a necessary part of the cellular damage that leads to cancer, leading to errors of copying the genetic material during cell division. Above all, the enzyme systems that are dedicated to the repair of DNA (deoxyribonucleic acids, the genetic material) may be compromised, with the result that damaged DNA can no longer be efficiently repaired. The removal of harmful waste materials and environmental toxins that gain access to the cells will obviously be impeded if detoxifying enzyme systems are either damaged, not produced in sufficient quantities, suffer from toxic inhibition or lack the energy supplies needed to detoxify.

Gerson, who passed away, I believe, in 1959, could not have known that the effects of cellular intoxication would, by the end of the twentieth century, be capable of such detailed explanation. Yet his work shows that he already understood the essence of this as if he had inklings of the future. He designed his therapy accordingly. But he did not have available to him all of the specific nutritional tools that are now known to support the energy-producing enzymes systems, support the detoxification enzymes systems (of which we now know several distinct types), minimize the inhibitory effects of toxins and promote the healing of toxic damage.

My therapy is dedicated to harnessing modern nutritional knowledge to all the above ends. I do not accept the view of those who argue that Dr. Gerson's therapy should be preserved and used unaltered in today's world. If Gerson himself had lived longer he



would surely have harnessed cutting edge nutritional knowledge himself as more became known. He could not do that and yet it appears essential that someone should do it, creating a brand new therapy. The principles I employ, therefore owe much to the work of Gerson and Kelley but the protocol is based to a great extent upon new known facts in nutritional science. Some parts of Gerson's protocol now seem not to have stood the test of time and hence, in my opinion, they should be discarded in favour of new measures.

## KEY PRINCIPLES IN THE DESIGN OF THE PLASKETT THERAPY

The first principle of my therapy is to provide the cells with luxury nutrition in respect of the well-established minerals and vitamins. I expected this to protect the cellular energy supply, the enzyme systems and the cell structure. Where these things have been compromised as part of the metabolic degradation that led to cancer, this luxury nutrition can be expected to permit and encourage a start to recovery, i.e. to start a shift towards more normal metabolism and a reactivation of the cellular repair mechanisms. Whether or not this in itself can be expected to reverse an established cancer was bound to be uncertain. On the whole the expectation would be, from biochemical considerations, that they would not achieve this unaided. One could have surmised that it would work in a few cases, since even several single nutrients have been shown to be capable of reversing cancer cases but only with a low level of reliability.

A good many of these well-established minerals and vitamins are known, from experiment, to have certain anti-cancer actions. In most cases what has been demonstrated is an ability to inhibit the initiation of cancer. That is different from reversing established cancer. In most cases we now have fairly good knowledge of the mode of action of these minerals and vitamins. This knowledge tells us how these nutrients act as co-factors for specific enzyme systems that play roles in such processes as energy generation, protein synthesis, the formation and maintenance of membranes and the synthesis and/or repair of the DNA. Also, some of these minerals and vitamins act to enhance detoxification or to reduce new toxin formation in the tissues. This is especially true of those that act as antioxidants. These include, among the common nutrients, Vitamins C and E and the mineral selenium.

It has long seemed obvious to me to formulate nutrient cocktails for cancer patients that would combine together agents that support a wide range of different cellular enzyme systems and that help to maintain cellular structure in a number of different ways. The principle here is to improve all systems if possible, prevent all types of intracellular degradation and then promote the repair and healing of the toxic damage that has accumulated. If cell biochemistry is improved in all these ways then the cell may 1) avoid



becoming cancerous, 2) return, after suffering (at least) precancerous damage, to relative normality of structure and function (redifferentiation), 3) in the case of immune cells, be reactivated so as to be able to destroy those cancer cells that are beyond being reclaimed.

## MORE THAN JUST VITAMINS AND MINERALS

However, it seems clear that we cannot necessarily expect that the common essential micronutrients alone will actually restore the body to normal. Therefore in my therapy I call also upon a diverse group of substances called "phytonutrients", a name that signifies that they are derived from plants. Some people prefer the name "nutriceuticals", since that term can include substances derived also from animals or from bacteria or fungi. Some of these, like alpha-carotene for example (a member of the important group of "carotenoids"), are present in normal foods. If we do not get enough alpha-carotene it may be because we do not eat enough carrots or red palm oil. Carrots contain only a little of it, so one needs to eat a lot of them. Red palm oil is a bit of a speciality. Although it is in supermarkets in the UK, not everyone buys it, good tasting though it is. We may or may not even want or need the other components of this particular oil. Another large phytonutrient

group are the flavonoids. Some very good flavonoids are present in tea, though there is room for doubt as to whether these are still good after going through the black tea manufacturing process or after the addition of milk to the beverage. Therefore, best advice is to use green tea for this purpose. Other flavonoids occur in other foods, all of which is starting to make the dietary selection very specific and rather complex. It called for a very directive approach (i.e. thou shalt eat this or that fruit or vegetable specifically), not just any type that you fancy. If one is a cancer patient it seems likely to be well worth putting up with this inconvenience for at least the chance to extend one's life, improve one's quality of life or even perhaps regain health.

In my therapy I provide a diet and supplements programme designed to give a very potent daily input of these phytonutrients. I do not include them in the diet unless the published research literature indicates that the particular phytonutrient has a worthwhile anticancer action. The result is a protocol that provides an absolute abundance of phytonutrients having known anticancer actions. Some, like beta-carotene (which must be of natural origin) are at the same time both vitamin-like and a phytonutrient. There are many other important carotenoids, like lutein, zeaxanthin and lycopene.

These, and the flavonoids, together go a long way towards explaining the known anticancer action of diets high in fruit and vegetables.

## THE STANDARD OF EVIDENCE

I start to take an interest in a particular nutrient or phytonutrient for the therapy if research papers show that it has an anticancer effect. These must be research papers accepted for publication in peer-reviewed scientific journals, not just statements in popular writing or on websites. Remember that anyone can write anything. Unsupported statements upon such matters are valueless unless confirmatory scientific work exists. The best type of research is a trial with human cancer patients. Since these are very hard to organise and there are usually ethical problems about including the necessary controls (patients not receiving the potentially therapeutic nutrients), these are few in number. Moreover, one really needs work with people with established cancers. Work on cancer prevention by nutrients, intensely interesting though that is, is not directly applicable to cancer treatment. The nutrient choices I have made are all supported by good research evidence, not always in human trials but sometimes in reported research in animal cancer or in laboratory trials using cultured cancer cells. That these do not always transfer to the human case is known and recognised, but what I am looking for are strong research indications of likely anticancer potency, even if it falls short of proof for individual substances. I have made reference to some of the research evidence for some of the nutrients and foods in the final section below. A full referencing to this literature would be very voluminous.



## HOW DO THE NUTRIENTS PRODUCE THEIR EFFECTS?

The research literature revealed that there were at least 7 different mechanisms by which nutrients could exert an anticancer effect. They are not all the same with regard to how they act. These are the seven mechanisms below. I have indicated in each case one or more of the nutrients that act in the particular way.

### ANTI-OXIDANT EFFECT

This comprises quenching free radicals to reduce new damage that can be done to the patients' body cells, including immune cells, during the treatment. This may make the re-differentiation of cancer cells to normal cells more possible and prevent damage to recently repaired cells. Examples of this are Vitamins C and E, many carotenoids, many flavonoids, co-enzyme Q10 and the curcuminoids from the spice turmeric.

### ANTI-PROLIFERATIVE EFFECT

This comprises slowing down the replication of the cancer cells. Since most tumours are in any case losing cells at a great rate, this may be decisive in determining whether tumour growth slows down or stops. Examples are flavonoids, multiple carotenoids, Vitamin A and curcuminoids from turmeric.

### INDUCTION OF DETOXIFYING ENZYMES

This is the effect of increasing production of detoxifying enzymes and, by doing so, reducing toxins levels in the tissues. As a result cell damage will be reduced in the immune system and elsewhere. This may increase immune effectiveness. Moreover, further damage to recently repaired cancer cells will be reduced. Examples of substances working in this way are the organic sulphides from garlic, sulphoraphane and other thiocyanates from vegetables of the cabbage family, many other phytonutrients, coffee enemas to increase glutathione-S-transferase level in the liver and magnesium to increase glutathione levels as well as many minerals and vitamins.

### ENCOURAGEMENT OF CELL RE-DIFFERENTIATION

This effect is to encourage genetic repair to cancer cells and thus to encourage tumour cells to become normal cells again. This is very much like encouraging desertion from the enemy's army. Examples are bromelain – possibly zinc for DNA repair function and S-allylcysteine from garlic.

### INHIBITION OF METASTASIS

This is a slowing down of the process (metastasis) by which clumps of cancer cells detach from the tumour and migrate via the blood to establish secondary tumours in other parts of the body remote from the primary tumour. An example of a nutrient with this effect is bromelain.

This is the effect by which nutrients directly stimulate those functions of the immune system that have most to do with the immune attack upon tumour cells. Examples are Aloe vera, bromelain and many minerals and vitamins.

### ANGIOGENESIS INHIBITORS

This is the effect by which a nutrient inhibits the growth of the new blood vessels that the tumour needs and usually induces as it grows. Hence the result is to deny the tumour its blood supply and cause necrosis (death) of tumour cells. Examples of this effect are seen with the soya bean isoflavone, genistein.

In the design of my therapy I have taken all of these different anticancer actions into account. I have provided a blend of nutrients and phytonutrients that possesses all seven of these anticancer actions in the food and supplements of the therapy. I do not think that this approach has been consciously employed before.

## THE CANCER PATIENT NEEDS TO EXCLUDE UNHELPFUL FOODS

There is a long exclusion list comprising textured soya, sugar of all kinds, molasses, honey and syrups, jam or other preserves, salt (except for potassium chloride as a salt substitute), confectionery, ice-cream, chocolate, carbonated beverages or squashes, alcohol, yeast or yeast extract, hydrolysed vegetable or animal protein, savoury liquids, pastes and cubes of whatever brand containing yeast extract or hydrolysed vegetable or animal protein, soy sauce, miso, tamari, and all canned or frozen products. Genetically modified foods are excluded by the requirement for organic produce. The dietary protein intake is kept low in accordance with the early work of Tannenbaum (1940), which received ample support in the 1970's (e.g. Armstrong & Doll 1975, Hems 1978) and also much more recently (Fontana et al 2006). All fried foods are similarly excluded, to avoid using oil and the hazard of damaging that oil with high temperatures. Processed foods are entirely excluded, as one would expect in any naturopathic programme, to get away from process damage, nutrient depletion, lack of organic origin and salt and other additives. Also, the diet on the therapy is vegan and hence meat, dairy products, eggs and fish are all excluded rigorously. No separated fats or oils are used on the diet apart from those needed to deliver the Omega 3 essential fatty acids. A diet too high in total fat stimulates the production of an extremely unhelpful enzyme known to activate carcinogens and thereby to promote mammary, colonic, pancreatic and pulmonary cancers in animals. Hence, relatively low fat diets with adequate but not excessive polyunsaturated fatty acids would seem to be indicated.

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# METHODS

I DETAIL THE METHODS USED BELOW.

## LIFESTYLE AND ENVIRONMENT

Although there is no a priori reason to think that removing the factors that cause cancer will necessarily help to reverse it, it was nonetheless decided to remove such factors as a precaution. Both laboratory experiments and the epidemiology of cancer are showing us that multiple factors may work together to generate the cancerous transformation. Lanza et al (1990) stated that 68% of cancer deaths in the USA were accounted for by diet, alcohol and tobacco. When "chemicals and other environmental factors" are also included Simone (1992) estimated that 80-90% of all cancers were accounted for. It seems clear that interaction of these different factors is important and that any anti-cancer programme should avoid known cancer-causing agents. Because carcinogenicity is a common property among chemicals of many types, it was decided to follow a general policy of excluding chemical agents as far as possible.



The following guidelines were therefore issued to all patients joining the programme. What follows is only a summary of those guidelines.

All food used should be organically grown. All tap water to be directly consumed or used for cooking should be treated to remove such contaminants as pesticides, nitrates and nitrites, heavy metals and metallo-organic compounds of heavy metals, chlorine from the Water Company's treatment plant, organo-chlorine compounds which come from the chlorine treatment of water, PCBs, fluoride, aluminium etc. and for this purpose a reverse osmosis water treatment was recommended. All types of chemical exposure should be avoided. This includes household chemical products, including particularly aerosols, insect sprays, cosmetics that contain chemicals and hairsprays, gardening sprays and garden chemicals and any high concentrations of the vapour of petroleum products, such as oil and petrol. Smoking, alcohol and drugs are similarly excluded, whether the drugs have been medically prescribed or not. This is because this is a detoxifying therapy and cannot be expected to succeed in the presence of constant retoxification. In the case of dependence upon medical drugs, this can

be a reason for difficulty or even exclusion from the therapy unless it can be resolved. Patients that are clearly dependent upon drugs should be identified and they should either not follow this therapy or, if practicable, should enter upon a period of gradual and controlled drug withdrawal under the proper supervision. This delicate matter may well depend upon the nature of the drug or drugs and the reason for their original prescription and must be handled professionally. These basic requirements for implementing the therapy entirely preclude patients who are having chemotherapy.

## DETAILS OF THE THERAPY DIET

The foods were selected to embody the principles of balanced nutrition within the context of a vegan diet. All foods were grown without agricultural chemicals. The protein and fat intakes were not monitored individually but principles of the diet were applied with an element of choice by each patient. The protein content was normally about 50g/day, in accord with literature already quoted showing a relationship between tumour growth and protein intake. For similar reasons fat intake was controlled to about 25g/day while ensuring provision of essential fatty acids. Fresh vegetables were used (usually not less than 1000g fresh weight per day excluding potatoes), providing at least 80g of vegetable solids/day. Pulses were also used up to a limit of 40g/day. The selection of dietary items was based upon research literature showing that the foods contained anti-tumour biochemicals in significant concentration. Dietary items specifically prescribed included onions or shallots (120g/day) and garlic (10g/day) for their content of flavonoids and organic sulphides, dry powdered turmeric (5g/day) for curcuminoids, cruciferous vegetables (170g/day) for carotenoids (especially lutein and zeaxanthin), isothiocyanates and indoles. In some cases tomatoes (200g/day) were also taken for lycopene and other carotenoids. However, a full list of vegetables known to contain favourable levels of anticancer phytonutrients was provided to the patients.

Juices (minimum 200ml each, six/day) were taken, having been prepared from fresh oranges, apples, carrots and green leaf vegetables. These were selected as sources of multiple anti-tumour biochemicals, most particularly many different forms of carotenoids and flavonoids.

In addition the diet permitted whole grains in which rice and/or millet and also oats, played a prominent part. Buckwheat, barley and fresh sweet corn are used as occasional variations. The only oils used, and provided in measured amounts, were linseed oil and/or fish oil, the latter, which was not always used, being, obviously, a

non-vegan item. The advantage of the fish oil is the long chain-length of the fatty acids, which makes them more directly usable.

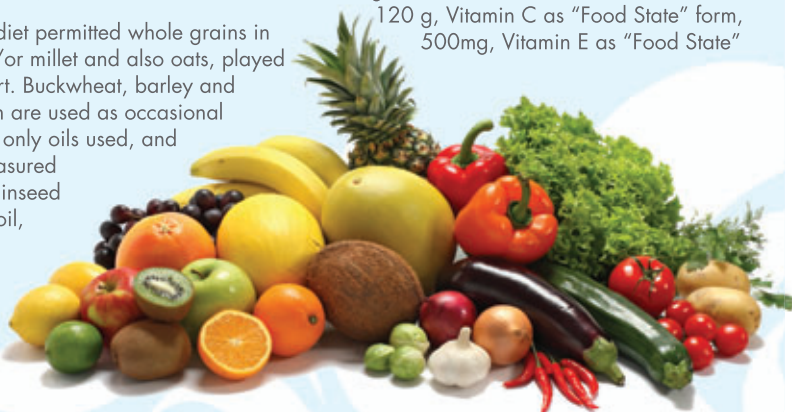
## THE COFFEE ENEMAS

Coffee enemas are used (4/day, 560-840ml each) for their naturopathically recognised purpose of increasing the detoxification capacity of the liver. Biochemically their role is to increase the titre of the enzyme family, the glutathione-S-transferases in that organ, as reported by Hildenbrandt in 1990. They comprise an extremely important set of enzymes of detoxification. Four enemas are used, spaced through the day. Each enema is prepared from 25g of organic ground coffee to one litre of treated water. Patients are supplied with a precise preparation method.

Due to the long use of coffee enemas in cancer patients, and also in non-cancer patients with chronic illness, there is little room for doubt about the safety of using these enemas. Those who wish to attack and suppress any nutritional approach to treatment have quoted one report that alleged there was some hazard in their use. However, the standard of proof in that report is so low as to make it unworthy of attention.

## THE NUTRITIONAL SUPPLEMENTS USED ON THE THERAPY

The nutrients given as supplements, with daily intakes, were magnesium, as citrate, 1008mg, nicotinamide (Vitamin B3), 100mg, thiamine (Vitamin B1), riboflavin (Vitamin B2), pyridoxine (Vitamin B6), pantothenate (Vitamin B5), para amino benzoic acid, 50mg of each, cyanocobalamine (Vitamin B12) and biotin, 50 g of each, folic acid, 90 g, iron 30mg, zinc, 63mg, manganese, 63mg, chromium as the GTF form, 198 g, selenium as selenomethionine, 198 g, molybdenum 648 g, boron 5.4mg, silicon 162mg, Vitamin A, 7560 i.u., potassium, as mixed organic salts, citrate, gluconate and acetate, 2.72g, choline as choline bitartrate 1.5g, inositol, 1.5g, calcium ascorbate, 2.25g, ascorbic acid, 2.25g, citrus bioflavonoids, 500mg, beta-carotene, 14.5mg, alpha-carotene, 300 g, lutein, 110 g, zeaxanthin, 55 g, cryptoxanthin, 35 g, 19 different amino acids: individual intakes from 90mg to 450mg: total intake 5.4g, bromelain, 1500mg, co-enzyme Q10, 30mg, pancreatin, 3000mg, selenium as "Food State" form, 200 g, chromium as "Food State" form, 120 g, Vitamin C as "Food State" form, 500mg, Vitamin E as "Food State"



form, 200mg, isoflavones of soya or clover (certain patients only): daidzein, 31mg, genistein, 8mg, glycitein, 21mg, fish oil, 5ml, Bifidobacterium bifidus, 4 billion active organisms, Lactobacillus acidophilus and rhamnosus, 10 billion active organisms, betaine hydrochloride, 1944mg, pepsin, 30mg.

The majority of these nutrients, or metabolites derived from them, have been implicated in inhibiting either the genesis or growth of cancer (or both) and reported as such in peer-reviewed scientific journals. Most of them were used in the form of three composite supplement products made up especially for use by the Trust.



## COMPLEX HOMOEOPATHIC REMEDIES

Two complex homoeopathic remedies from the German school were used in most versions of the Therapy (Co-enzyme compositum and Ubichinon from Biologische Heilmittel GmbH from Baden-Baden. These are remedies formulated to stimulate the cell-level respiratory and energy-generating processes. They are used in the form of injectable ampoules. The contents of one ampoule of each is injected subcutaneously twice per week in accord with manufacturers' optimum recommendations. In variants of the therapy adapted to cancer of particular sites, different or additional remedies are used. It is quite widely believed by homoeopaths that low-potency remedies have the strongest effects close to the physical and physiological level and that they therefore have the more direct effects than higher potencies upon biochemical processes in the living cell. Homoeopathic remedies of this type (low-potency complex remedies) are very commonly used medicine in Germany, where they mainly originated, and other European countries but have had much less uptake in the

UK. They differ from higher potency "classical" remedies in that they still contain, after dilution and succussion, some small quantities of the remedy materials. They appear to have major advantages over classical single remedies for initiating and maintaining detoxification and healing at the subcellular level as an adjunct to nutritional and naturopathic therapy.

## VARIATIONS OF THE THERAPY

The protocol of the therapy was not varied after the start except in cases where some disability prevented individual measures from being applied or where the intensity of the therapy had to be relaxed for a time due to patient responses. However, differences or additional measures for cancers of certain sites were specified where the research literature indicated special benefit. Some particular nutrients or foods are likely to be helpful with regard to the particular forms of cancer (e.g. isoflavones in oestrogen-related cancers, extra lycopene or tomatoes in pancreatic or cervical cancer). Variations in the homoeopathic element of the therapy were mentioned above.

## RESULTS AND CONCLUSIONS

A full enquiry by an independent nutritional practitioner into the results of the therapy over the 8-year period of use is being mounted using the Trust's records. The first indications are that:

40 full recoveries were obtained (i.e. no diagnosable signs of cancer with the patient being well). These represent 57% of the patients who followed the protocol for the specified period of time. Among those who died there are indications that some had defaulted in continuing to use certain components of the therapy, suggesting that, if there had been fully rigorous control of the treatment the recovery rate could have been higher. In any case, many of those who died did so after surviving well beyond the length of their original prognosis, indicating that the therapy had been a partial success in their cases also. The cases whose records were available for study did not represent all the patients who undertook the therapy, so there could be more than the known 40 recoveries.

The drop out rate for patients was high due to various factors, including the rather strict demands of the therapy, family or financial problems, lack of a home carer, advice given against the therapy by orthodox doctors and the intervention of medical situations making the continued use of the therapy too difficult.

The patients admitted to the therapy by the Trust have been, in the main, those who had no orthodox treatment currently on offer, or who opted to eschew orthodox therapy for reasons connected with their own personal belief systems. The doctors of the majority of the patients joining the therapy rated them as terminal.

This therapy should be offered to patients as a nutritional programme that is thought likely to benefit their general condition and quality of life rather than as a means to stop the cancer. Nonetheless, the results obtained so far in the application of the Therapy do suggest rather strongly that a modification of that view would be justified and that the method could well be offered as therapy for advanced cancer, quite openly and honestly, if the Law permitted it. That one cannot do that is due to a now archaic Law that should be altered as soon as possible.



In whatever country the therapy is applied the relevant Law of that country should always be followed. It is my understanding that all the patients who were admitted to the therapy came forward spontaneously to request it. My advice to the Trust was to follow that procedure and ensure that patients had a correct understanding of the position and, in the UK, to always follow the provisions of the Cancer Act (1939). At the same time I always felt that the UK Cancer Act should be amended so as to allow more scope for nutritional treatments to be developed by those who back them. The Cancer Act (1939) has, in fact been used to suppress the Nutritional Cancer Therapy Trust even though that body was run as a charity and did not engage in commerce. The community is now considerably poorer for that act of folly.

The Act was clearly put in place, quite correctly, to prevent trickery. But in this case it has had and is having a very suppressive effect upon a potentially very important area of work, in which the science indicates there is much serious potential.



## APPENDIX 1

### LITERATURE EVIDENCE OF THE ANTI-CANCER ACTIVITIES OF IMPORTANT DIETARY ITEMS, NUTRIENTS AND HERBS INCLUDED IN THERAPY

Some readers may be satisfied to be assured that this work is based upon appraisal of the relevant research literature. For those who would like evidence to be specifically cited I offer the following section that names authors and literature references. My book "The Nutritional Therapy of Cancer (in preparation) gives far more extensive coverage of this.

Many natural products and foods have been shown to have quite powerful effects in the prevention of carcinogenesis. These have been reviewed by many authors including Wattenberg (1986), Block et al (1992), Stavric, (1994), Wargovich (1997), Ren & Lien (1997). Some of the biochemical substances involved would be classed as food constituents and others as herbal products. Many of these are also the subjects of a less voluminous but nonetheless impressive literature showing that they exert an anti-tumour effect upon established cancers (See for example, Pettit 1977).

A low protein diet is advocated for cancer patients and is known to activate some important immune system functions (Tannenbaum, 1940, Good and Jose 1973, Franceschi et al., 1989, Hildenbrand 1990, Buiatti et al. 1990, Böing et al. 1985). Werbach (1993) lists five studies that disclose an advantage, with regard to cancer incidence, for following a vegetarian diet. There are many reports of the negative effect of meat diets upon cancer; for example, Day et al. (1994) report that meat specifically (rather than just protein), was one of the factors that increased the development of a second primary tumour in patients who already had one.

The paper by Lindblad et al (1997) refers to previous studies on diet and renal cell cancer, which found "an inconsistent positive association with meat, milk, and protein". Overall the evidence incriminates milk less than meat, but the link to total protein intake appears to be strong.

The case for use of onions and garlic in connection with cancer has been reviewed by (Ernst 1997) and the selenium compounds of garlic have been much implicated in its anti-cancer actions (el-Bayoumy et al, 1996, Lea, 1996).

Curcuminoids have been the subject of many reports showing an anti-cancer effect, e.g. Nagabhusan & Bhide (1992). Broccoli, and its anti-cancer active principal, sulforaphane, was the subject of a very careful investigation by Fahey et al (1997). There have been many studies of the anti-cancer effects of carotenoids, for example, Nishino, (1995), who studied several carotenoids apart from beta-carotene, including alpha-carotene and also fucoxanthin, a carotenoid dominant in the Phaeophyta or brown algae.

Aloe vera has been implicated in the possible treatment of cancer through several research reports. Aloe's high molecular weight polysaccharide (in the form of a separated proprietary preparation, Acemannan) has been used to treat cancer in animals (Peng et al, 1991, Harris et al, 1991, Tizard, 1991, King et al, 1995) and effects of Aloe extracts

upon human cancer tissue cells have been demonstrated (Winters et al 1981). The effect of Aloe vera juices, either gel or whole leaf products, upon established cancers in vivo has not been documented to the same extent but many anecdotal accounts of apparently successful human treatment have been recorded (Ritter, 1993, Ritter 1998). However, the ability of Aloe preparations to stimulate the animal and human immune system in vivo seems to be beyond doubt (Karaca, 1995, r'Hart et al 1989, Pulse TL & Uhlig, 1990).

Notwithstanding the previously published anecdotal accounts of success in cancer treatment with Aloe treatment alone, it was considered unlikely that this could provide a realistic and worthwhile cancer treatment on its own. Moreover, Aloe extracts taken by mouth could not be expected to fulfil the same function as the injected Acemannan employed by United States researchers in animals. It was therefore important that the Aloe should comprise just one constituent within a multi-component therapy.

Bromelain, an enzyme preparation obtained from pineapple stem juice, matches Aloe vera in that it also possesses both anti-inflammatory and anti-tumour properties as well as other benefits. Taussig and co-workers, in particular, studied the anti-tumour effects (Goldstein et al, 1975, Taussig et al 1985, Taussig et al 1988, Taussig et al 1991).

Evidence has continued to accumulate that certain flavonoids from natural products can discourage the growth of established tumours. Kandaswami (1993) demonstrated that flavonoids such as quercetin exert an antiproliferative effect upon squamous cell carcinoma in-vitro that is enhanced by Vitamin C. Kuo (1997) showed that quercetin and genistein were the most potent anti-proliferative flavonoids against cells of colon cancer.

Armand (1988) carried out a study that included the screening of 200 naturally occurring flavonoids and found that quercetin enhanced the lifespan of mice with P-388 leukemia. Teofili (1992) demonstrated that quercetin was potentially useful in the treatment of acute leukemias. Liao et al (1995) found that catechins in green tea reduced the size of human prostate and mammary tumours growing in mice.

The same is true of the carotenoids and terpenoids. Beta-carotene and Vitamin C (or possibly other nutrients consumed within the diet that yielded these) appear to very strongly influence the survival of women with breast cancer (Ingram 1994). Wattenberg et al (1986) showed that "high doses of D-Limonene can cause regression of mammary tumours that have already reached a size that can be palpated grossly". Rock et al. (1996) also found that a carotenoid-rich diet improved the prognosis after diagnosis of breast cancer. From this work it appears that the carotenoid lutein was particularly important. Hall (1996) found that beta-carotene, canthaxanthin and retinoic acid could inhibit the growth of human DU145 prostate cancer cells to the extent of 45, 56 and 18%, respectively. Lycopene was also found to inhibit cell growth.

The literature concerning the anti-tumour activities of vitamins, minerals and vitamin-like substances is too complex and voluminous to quote here. However, an example is that of



Co-enzyme Q10. Following some work which showed that administration of high doses of Co-Enzyme Q10 (Lockwood et al 1994a) could favourably influence the progression of established cancer of the breast, Lockwood and colleagues (1994b) set out to find out the effect of combining this co-enzyme with a wide range of other vitamins and minerals.

The trial involved 32 women with breast cancer. In a period running from 1992 to 1995 none of the women died of the disease, none of the women showed signs of the development of distant metastases, whilst six showed some degree of remission, extending in two cases to actual disappearance of the tumour. Further results from continuation of this study are awaited, but at this stage it appears from the above work that nutritional supplements alone, whilst not a complete therapy in themselves, have a markedly favourable influence even upon actively growing tumours.

Weiner (1986) reviewed the positive effects upon the immune system performance from using a wide range of mineral and vitamin supplements. Werbach (1993) reviewed the effects of such supplements upon the immune system and also upon carcinogenesis and cancer.

This work, which has been touched upon here only briefly, indicates that it is absolutely unsupportable to maintain today that nutrients do not influence both carcinogenesis and the growth of established tumours. That being the case it should be incumbent upon all oncologists to study the subject and to at last move away from the habit of advising cancer patients, as they often do, to take no special measures with their diets.

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