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CABBAGE PREVENTS CANCER - TRUE OR FALSE?

Alternative medicine has long believed that the right food can protect against cancer. Research scientists around the world are now coming to the same conclusion. But what to eat to stop you getting this terrible disease is something doctors don't tell you. If I'd been talking about this subject 20 years ago, (and I did), the majority of scientists, most doctors and many of the public would have thought that I was totally bananas (which some of them still do). There is general agreement about the role of some foods which cause cancer including high intakes of animal fat and their link to colon cancer and the relationship between alcohol and cancer of the oesophagus. Fifteen years ago the late Sir Ronnie Raven, a pioneering cancer surgeon and President of the Royal College, said on my radio programme that he believed time would reveal that the cause of most cancers was linked to food and their treatment would include appropriate nutrition. Around 70% of all deaths from cancer could be linked to diet, and there's a vast amount of information showing the protective association between plant foods and lower rates of cancers but it's almost universally ignored by doctors.

Cancer is the major killer in our society - a doctor only has to mention the word and it strikes horror into your heart - so it must be sensible to take a very close look at anything which may play a part in protecting you from this awful disease. Scientists at the leading edge of cancer research have shown that those eating large amounts of fruits and vegetables have less cancer. But still the doctors dither and procrastinate, maintaining that it would be wrong to give blanket dietary advice until they know exactly how, why and even if, these foods have a protective action. Perhaps you have to be the President of the USA before you get the best advice. In 1984 President Reagan was found to have a polyp in his colon. In March '85 another was found, and by the summer of '85 he'd had an operation and by this time he was on a widely publicised anti-cancer diet advised by the American Cancer Society. What was the diet? No red meat, no animal fats, lots of fruit and vegetables, plenty of salads and regular amounts of good cereals - just the sort of diet that the "totally bananas" alternative practitioners like me, had been recommending for half a century. Needless to say the news of Reagan's diet was spread across our newspapers and TV screens for weeks. But 12 years later little has changed in the doctor's approach to cancer prevention and food.

There are differing opinions amongst the researchers, some believing that food alone is the key to success, whilst others advocate a combination of food and vitamin pills. Some scientists are not totally enthusiastic but are convinced enough to change their own lifestyles and yet others who dismiss the whole idea that it is possible to increase our protection against cancer. Examining the diets of people who get cancer reveals the astonishing but simple fact that many of them have consistently eaten less fruit and vegetables than those who don't get cancer. Green leafy vegetables, the cabbage family, carrots, broccoli, lettuce, citrus fruits and all other raw fruits are the outstanding contributors towards a cancer free life. Dr. John Potter is Professor of Epidemiology - the study of disease in different populations - and Head of the Cancer Prevention Research Program at the University of Washington, Seattle, and it's this type of information which has made him a crusader on behalf of better nutrition.

"I think there is fairly strong awareness that diet and cancer are related but even when doctors in general practice know that this association is fairly widely held, they may not believe it. They know more about things that increase risk than they do about positive things that decrease risk, but today the public is better informed so that creates some pressure from the bottom upwards on the medical profession. Sadly, like most information, it's more common amongst the better educated and the better paid. Unfortunately knowing about these links sometimes leads people to think there must be a magic bullet which they interpret as 'If only I can take enough of the right pills, I can protect myself against cancer' - and that's probably not true. For some people taking lots of multivitamin tablets is just a way of making expensive urine and not an alternative to eating the right food. Not all of the beneficial things in fruit and veg are known about yet, let alone added to vitamin pills."

Most of the information available so far shows that high consumption of fruit and vegetables reduces the risk of cancer by no more than 50%, though experts like John Potter think this a very conservative estimate. Of course it's hard to change the eating habits of a whole nation, but even if it only halves the risk of cancer isn't it madness to ignore the evidence. If a drug company produced a pill tomorrow which was guaranteed to reduce cancer risk and equally guaranteed to have not a single adverse side effect, their shareholders would make millions overnight, and we'd all be popping a pill a day. How does that differ from eating more carrots, cabbage or broccoli?

The Hammersmith Hospital in London is a leading centre of excellence for the treatment of cancer, and its Professor of Clinical Oncology is Karol Sikora, a serious sceptic about the

value of dietary changes. Sikora agrees that we have one of the worst records for breast cancer and we eat more fat than any country in the western world, but he's not convinced by the link between fat in the diet and breast cancer. "There's no laboratory proof and although there's a hint in the epidemiology it's not enough to recommend a drastic change in lifestyle to people. All we can say is that we know that lowering animal fat and increasing fibre, protects you from a whole range of different disorders, probably including cancer. Are there protective foods, like raw vegetables which have cancer protectors in them? The answer is yes, there are, but how significant are they? Whether or not you eat a raw carrot or fresh fruit every day, it's not going to make a big difference. Epidemiological studies have not shown major differences."

In spite of the fact that in many countries where it's normal to eat far more fresh produce than here, there are considerably fewer women with breast cancer, Professor Sikora thinks there are too many complications to say it's all due to diet. But would he advise his own family to change the way they eat? "The answer personally is yes but I don't do so much myself. For general health it's better to have a high fibre low fat diet, as much as possible and to eat fresh fruit and vegetables every day. But don't think of it as preventing cancer, think of it as making yourself feel better, think of it also as preventing heart disease, and bowel disorder, diverticulitis, and a variety of other diseases. Don't think it's going to prevent you getting cancer necessarily. It will, maybe slightly improve your chances that you'll avoid cancer."

Some of the sceptics explain away the cancer protection of fresh produce by saying that eating more of these foods pushes the baddies like fats and red meat out of the diet. A vehement opponent of this argument and a keen supporter of taking extra vitamins as well is Gladys Block, another Professor of Epidemiology and Human Nutrition at the University of California, Berkeley. "I'm actually willing to be more forthright than most researchers are. I have almost no doubt at all about the relationship between fruit and vegetables and cancer risk as well as other chronic diseases. I don't say there's 100% chance of anything including the sun coming up tomorrow, so I reserve a little bit of doubt that it could turn out to be something else. I'm convinced by the combination of epidemiological studies and laboratory studies. The studies are worldwide, covering cultures that have different habits than ours in the US or the UK. For that reason I'm not persuaded by the question that says - maybe it's not the fruit and vegetables, maybe it's simply that they have a low fat diet - because in many countries the other side of the coin is not low meat but rice or beans. When you look at countries in Asia, what is the high fruit and veg diet replacing? It's not pushing out meat, it's not pushing out a high fat diet. Even in those countries where they don't have a high fat diet

anyway, the people who eat more fruits and vegetables have lower incidences of some cancers. As I said, what persuades me is the conjunction of epidemiology and laboratory science because if it were just the epidemiology it'd be uncertain, if there were just the laboratory science you'd be uncertain. But they're both pointing to the same thing. There's hundreds or perhaps thousands of test tube, biochemical research or animal data indicating that oxidation is a real source of damage to lipids and to DNA, and that antioxidants of various sorts can reverse or prevent that damage. Can prevent cells from transforming, can prevent oxidants or other carcinogens from leading to cancer.”

Dr. Michael Hill is a researcher at the Lady Sobel Gastrointestinal Unit at Wexham Park Hospital in Slough. He's also editor of the European Journal of Cancer Prevention and Chairman of the European Cancer Prevention Organisation. He's very cynical about the funding for research into cancer prevention. Only 5% of all the money spent on cancer goes into this area, a sizable chunk to the sexy field of genetics, but by far the largest proportion goes to treatment research - the most profitable area for the drug companies. He claims to be a sceptic when it comes to diet and cancer, but only because he doesn't think that there is enough evidence yet for the experts to be telling people what to do. There's also the question of outrageous claims made by many scientists during the last twenty years just to get publicity and secure grants for their own research which worry him. In spite of his reservations Dr. Hill is quick to take his own medicine.

“There's one area where I actually apply the research to myself - I eat a lot of salads and a lot of fruit. And this is the one bit of the diet and cancer story that I think we can really tell the world about. The thing about the fruits and vegetables story is that it applies across the board. It's all cancers. Populations with a low incidence of colon cancer tend to have a high incidence of gastric cancer and vice versa. It seems that things that protect against colon cancer seem to be positively related to gastric cancer. This may be an artefact but it's one reason I'm sceptical and we need to look at the total view when we're making dietary advice. As your standard of living goes up your tumour moves down in your gut, but you still seem to get it. Given the choice and knowing the odds, I would back a surgeon to cure me of colon cancer much better than stomach cancer. “

To illustrate the difficulties, Hill tells an amusing story of his attempts to persuade his colleagues in the European Cancer Prevention Organisation that one way to reduce cancer would be to eat less fried food, so everyone should be encouraged to throw away their frying pans. “The Spaniards nearly slaughtered us. I hadn't realised that the Spaniards fry

anything that doesn't move! But they fry it in olive oil. And as they said, they fry everything, they don't get any of the cancers or heart disease that we were talking about. So why should they throw away their frying pans. If my best friend came and actually solicited advice I would say that probably the first thing to do about food is to enjoy it. Because there's a lot more problems come from angst and worries and general stress than from cancer. Cancer's a disease of old age isn't it. You can have a horrible time in your 30s, 40s and 50s from life in general, which can be alleviated by a good meal, and a bottle of wine even. If you spend all those years agonising over your grated carrot and your mung beans, and then get cancer when you're 70, you're going to be pretty miffed! So, I would say that it's important that they shouldn't just look at cancer, they should look at the whole of disease. So from that point of view the best thing for them to do is to maintain good bodyweight by exercise, I don't think that trying to starve yourself is a good way to get good bodyweight. It doesn't work. Going for walks, gardening, whatever you like to do, get as much exercise as you can.

Secondly, I would say everybody in this country eats between meals. You don't see this in Italy, in the Mediterranean. When I feel hungry between meals I've started eating fruit instead of chocolate or biscuits or sticky buns - I eat fruit - I like it. So that's easy advice for me to give. I carry a banana around in my briefcase in case I get peckish, because you can't go to a shop and buy a single banana. You can buy a bar of chocolate, you can buy those little packets of 3 biscuits, or a danish pastry - but you can't buy a banana, orange or a piece of fruit. So I carry it with me. I find it a jolly good thing to eat between meals. I enjoy wholemeal bread, I enjoy a high vegetable, high fibre diet."

Vegetables and fruit contain an anti-cancer cocktail which we abandon at our peril but our consumption of fresh produce is desperately low. One ounce a day of salads and vegetables, and two ounces of fresh fruit is the average. Three quarters of adults don't eat a single piece of citrus fruit, half of them don't eat an apple or a pear, and two thirds don't touch a green vegetable in a whole week. For maximum cancer protection as well as general health benefits, we should all be aiming at eating a minimum of one pound of fresh produce each day excluding potatoes. Maximum protection comes from the widest selection so don't just eat frozen peas.

Lung cancer: Eating plenty of carrots and green leafy vegetables specifically reduces the risk of lung cancer.

Colon cancer: All the cruciferous vegetables - like cabbage, kale, brussels, broccoli, cauliflower, mustard, radish and swede - Chinese cabbage and carrots, are important.

Rectal cancer: There are consistent reports of a lower incidence of rectal cancer in those eating large amounts of all vegetables and fruits.

Upper respiratory/digestive cancers: Increased consumption of fruit is linked to a lower risk of cancers of the mouth, pharynx, larynx and oesophagus, and eating more vegetables is also particularly linked to less cancer of the larynx.

Stomach cancer: A general increase in fruit consumption and the specific vegetables, lettuce, onions, tomatoes, celery and garlic are all associated with a reduced risk of stomach cancer. These benefits are especially seen when large amounts of raw produce are eaten - a high intake of canned fruit and potatoes has been shown by some studies to increase the risk of stomach cancer.

Pancreas cancer: Almost every study of this cancer has shown that eating a variety of vegetables and fruits leads to a lower risk.

Bladder cancer: Carrots in particular but plenty of all other vegetables and fruit seem to protect against this particular cancer.

Cancer of the breast and uterus: The results for these "hormone-dependant" cancers are not quite so closely linked with vegetable and fruit consumption but there is some evidence of reduction in both types of cancer where fruit and vegetables make up a sizeable proportion of the daily diet.

Everyone knows that fruits, salads and vegetables supply essentials like vitamins and minerals, but even many scientists are unaware of the powerful chemical substances that nature produces within them. These "phyto-chemicals" play a major part in the protective action which these foods have against cancers and other diseases. Without these essential nutrients individual cells in the human body are not able to function properly and as a result they can lose their protective mechanisms and may become more susceptible to cancer causing substances.

The anti-oxidant vitamins A, C and E, together with selenium and folic acid are also known to contribute to our ability to fight off cancerous changes and whilst pills are not a substitute for good food there is certainly a place for nutritional supplements as extra insurance. Gladys Block is convinced that adding two oranges a day to your shopping basket could be a major factor in cancer protection. But even that might not be enough. She's in favour of supplements and takes a daily 2 grams of vitamin C herself.

One thing all the experts agree on is that increasing the total amount of fresh produce cannot possibly cause harm to anyone. They don't all agree that the evidence for cancer protection

is strong enough to make blanket recommendations. But it seems foolhardy in the extreme to ignore not only scientists like Gladys Block, Michael Hill and John Potter, but also the accumulated wisdom of all our forbears who survived against all the odds on a diet that was mainly fruit, vegetables, nuts and seeds.

A simple regime of extra vitamins and minerals is inexpensive and safe:-

Vitamin C	1 gram
Vitamin A	600 micrograms
Selenium	60 micrograms
Zinc	5 milligrams
Vitamin E	5 milligrams
Betacarotene	2000 micrograms
Folic acid	200 micrograms