

A woman with short brown hair, wearing glasses and a bright pink long-sleeved shirt, is shown from the chest up. She is holding a green, round fruit (possibly a lime or lemon) in her right hand, which is raised towards the top right of the frame. She is surrounded by lush green foliage, including leaves and small white flowers. The background is slightly blurred, suggesting an outdoor garden setting.

ELLEN KAMPMAN, PROFESSOR OF NUTRITION AND DISEASE:

‘A healthy diet can prevent one third of cancer cases’

In May, the World Cancer Research Fund presented its new guidelines for the prevention of cancer. It will be quite difficult for consumers to follow the recommendations for a healthier diet. ‘You shouldn’t put all the responsibility on consumers,’ believes Ellen Kampman, professor of Nutrition and Disease.

TEXT ASTRID SMIT PHOTOGRAPHY MARCEL VAN DEN BERGH

On the table in Professor Ellen Kampman’s office in Wageningen stands a card with guidelines for preventing cancer. The dos and don’ts for consumers are indicated using the colours of a traffic light. The central red circle tells us: don’t smoke, don’t drink and don’t get overweight. In the amber circle around it: limit your intake of fast food, red and processed meat and other processed foods with lots of fat, starch and sugars. And then in the green outer circle: eat fruit and vegetables, pulses and high-fibre products; breastfeed your baby; and above all: get exercise!

It’s a clear message, based on 10 years of research and a 12,000-page report. Cancer researchers all around the world combed the scientific literature in search of links between nutrition, exercise and the risk of cancer in humans, animals and cells. Then Imperial College London processed the mountain of data from all the researchers. After that, a panel of independent experts – who weren’t involved in the research themselves – assessed the data and drew up the new guidelines. Kampman chaired the meeting in May at which the World Cancer Research Fund drew up the guidelines.

The World Cancer Research Fund already published guidelines 10 years ago. What are the main changes?

‘Actually the guidelines have pretty much stayed the same. Luckily, because otherwise scientists would have a problem. The main thing is that certain recommendations have become more forceful because the evidence for them has become stronger. Especially the recommendations that have to do with obesity, such as the consumption of fast food and sugary soft

drinks. The recommendation on alcohol has been sharpened up too. In the previous guidelines the recommendation was to drink in moderation, whereas now the advice is: don’t drink any alcohol if you want to prevent cancer. Ten years ago, the harmful effects of alcohol were weighed up against its preventive effect: alcohol was believed to reduce the risk of cardiovascular disease. But in the meanwhile several studies have contradicted that claim of a protective effect. Alcohol really is one of the most carcinogenic substances we consume. It leads to DNA damage and causes many kinds of cancer, including breast cancer, the most common form among women.’

Is the relation between other foodstuffs and cancer as direct as that?

‘Luckily there are not many substances that are present in our diet in such high concentrations that they cause damage to our DNA, making them carcinogenic. Others besides alcohol are the acrylamides in potato chips and fries. But big manufacturers have largely cut those out of their products. Then there are other substances in food that raise the risk of cancer. There is haem iron in red meat, for instance. If you are exposed to too much of that, the gut wall sustains damage, raising the risk of colon cancer. And there are substances that boost the growth of a tumour cell that has already formed. Too much fatty tissue around the organs, for instance, can lead to chronic inflammation that stimulates tumour growth. That is why the guidelines also say: avoid overweight. Because overweight is associated with 12 types of cancer, such as bowel, pancreatic, breast and uterine cancer.’ >

Which types of cancer are the most sensitive to what you eat?

‘To find that out you have to look at the attributable risk. What percentage is explained by diet and exercise? For bowel cancer, it is 40 to 50 percent, for breast cancer 30 to 40, and for pancreatic cancer 5 to 10 percent. The writers of the report did the sums on those attributable risks for the four main types of cancer – lung, bowel, breast and prostate. They found that 30 to 40 percent of all the 100,000 Dutch cases of cancer per year could be prevented if the Dutch ate a healthy diet and got more exercise. If the Dutch didn’t smoke, we’d also prevent about 30 percent of cancers.’

And does it help to eat fruit and vegetables?

‘It is hard to measure the effect of fruit and vegetables. Surveys don’t work very well because people often forget what kinds of fruit and vegetables they have eaten. And we don’t have a good indicator for measuring fruit and vegetable consumption in the blood. Some of my colleagues say that fruit and vegetables don’t help prevent cancer. But that is a

dangerous statement. There is a clear link between fruit and vegetable consumption and a lower risk of head and throat tumours among smokers. And people who eat a lot of fruit and vegetables consume fewer calories, lowering their risk of becoming overweight and therefore their risk of cancer. So there definitely is an indirect link between fruit and vegetables and cancer.’

The guidelines apply to cancer patients as well. Do a healthy diet and exercise help when you already have cancer?

‘That remains to be seen from the studies that are now being done. My sister-in-law got breast cancer about 10 years ago. She asked, ‘What now, Ellen? Is there any point in a healthy diet now?’ I had no idea; up to then I had only done research on nutrition and the prevention of cancer. It turned out there was hardly any scientific literature about it, so I started a study. We now have three large studies running, in which we monitor cancer patients, looking at their diet and lifestyle. The first focuses on bowel cancer patients, the second on breast cancer patients, and the third on patients whose genes mean they are at

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- 1988 - 1989 Worked on cancer registration at the Comprehensive Cancer Organization for the central Netherlands
- 1989 - 1994 TNO Nutrition, PhD at Maastricht University on the link between colon cancer and dairy consumption
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‘Overweight is associated with 12 types of cancer’

very high risk of all types of cancer. Other recent studies show that more exercise can reduce the risk of a recurrence of the cancer. Hopefully in a few years we’ll find out whether a healthy diet can enable us to live longer with a better quality of life. ‘On the basis of those results we would like to start an intervention study among cancer patients. Then we won’t just study the relation between their diet, their lifestyle and the course of their illness, but we shall influence it as well. In a pilot study last year, we studied whether tending a vegetable garden changed the course of the disease for the better. I have a vegetable garden myself, and I thought it would be very good for cancer patients too. They get exercise,



‘Alcohol is one of the most carcinogenic substances we consume’

they make vitamin D (which cancer patients are often short of) because they are out of doors, and they meet fellow sufferers. And with a bit of luck, they eat the vegetables they grow too. The initial results seem promising. Then we also want to find out why coffee protects against bowel, liver and uterine cancer. Which substance could be responsible for that?’

An awful lot of people don’t know that there is a link between diet, obesity and cancer. And even when they do know it, they hardly make any changes to their diet or behaviour. Giving up alcohol is especially taboo.

‘Yes, for a lot of people that is a difficult message. But there are all sorts of ways of making sure the Dutch start living more healthily. It’s important that we inform doctors, for instance, and that they communicate the often unwelcome message: “maybe you could try to lose weight and drink less”. Research shows that consumers have a lot of faith in doctors. But the consumer’s environment will have to be changed too: less advertising for alcohol and fast food, cheaper fruit and vegetables, a tax on sugar and fat – measures like that. You shouldn’t put all the responsibility on the consumers. They need help.’

Interesting ideas, but who is going to take the lead?

‘In the Netherlands, the ministry of Public Health, Welfare and Sport is working on a national prevention agreement, in which cutting obesity, alcohol consumption and smoking is central. The contents and the approach will be established this year together with stakeholders – from health insurance companies, patients’ associations and hospitals to representatives of the food industry. I think the draft plans that were leaked, for subsidizing sugar-free products and discouraging bargain prices for alcohol, are rather feeble. I doubt whether we shall solve the overweight and alcohol problems that way. Anyway, I shall do everything in my power to inform consumers. I recently gave a talk on diet and health at a science café in Wageningen. To my great surprise, the room was full of young people. They were well-educated young people, mind you. It would be good if we could reach less highly educated young people too, because they stand to benefit the most in health terms. The period in which they enjoy a good quality of life, free of disease, is 20 years shorter for them.’ ■

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