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Five-a-day 'will not cut cancer'

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Eating more fruit and vegetables has only a modest effect on protecting against cancer, a study into the link between diet and disease has found.

The study of 500,000 Europeans joins a growing body of evidence undermining the high hopes that pushing "five-a-day" might slash Western cancer rates.

The international team of researchers estimates only around 2.5% of cancers could be averted by increasing intake.

But experts stress eating fruit and vegetables is still key to good health.

In 1990, the World Health Organization recommended that everyone consume at least five portions of fruit and vegetables a day to prevent cancer and other chronic diseases.

The advice has formed a central plank of public health campaigns in many developed countries. It has been promoted in the UK since 2003 and in the US for nearly two decades.

But research has failed to substantiate the suggestion that as many as 50% of cancers could be prevented by boosting the public's consumption of fruit and vegetables.

"It's still a good idea to eat your five-a-day but remember that fruits and vegetables are pieces in a much larger lifestyle jigsaw"

Yinka Ebo
Cancer Research UK

This latest study, which analysed recruits from 10 countries to the highly-regarded European Prospective Investigation into Cancer and Nutrition, confirms that the association between fruit and vegetable intake and reduced cancer risk is indeed weak.

The team, led by researchers from the Mount Sinai School of Medicine, in New York, took into account lifestyle factors such as smoking and exercise when drawing their conclusions.

But writing in the Journal of the National Cancer Institute, they said they could not rule out that even the small reduction in cancer risk seen was down to the fact that the kind of people who ate more fruit and vegetables lived healthier lives in many other respects too.

Broccoli not biscuits

In the best case scenario, an extra two portions of fruit and vegetables each day could prevent 2.6% of cancers in men and 2.3% of cases in women, the study concluded.

"Research should focus more sharply on specific fruits and vegetables and their constituents"

Walter Willett
Harvard School of Public Health

Vegetables, which tend to be richer in nutrients, appeared to be more beneficial than fruits, while heavy drinkers seemed to gain the most from a higher intake of both when it came to protection from cancers caused by alcohol and smoking.

In an accompanying editorial, Professor Walter Willet of Harvard University said the research strongly confirmed the findings of other studies, showing "that any association of intake and fruits and vegetables with risk of cancer is weak at best".

But he stressed specific substances contained in certain fruit and vegetables, if harnessed, could still have an important, protective effect.

Substantial evidence suggests lycopene from tomatoes, for instance, may reduce the risk of prostate cancer, while chemicals in broccoli are thought to stimulate a gene which protects against bowel cancer.

And data still suggests fruit and vegetables may provide protection against cardiovascular disease, one of the major killers in the developed world - although this too has yet to be proven categorically.

Keeping lean

But while the links between diet and cancer remain unclear, obesity is now seen as an established risk factor.

Fruit and vegetables could therefore be beneficial just by virtue of taking the place of more calorific fare, health experts say.

In any event, a reduced risk of 2.5% should not be dismissed out of hand, the World Cancer Research Fund argues.

"For the UK, this works out as about 7,000 cases a year, which is a significant number," says Dr Rachel Thompson from the charity, which in a major 1997 report said there was "convincing evidence" of the protective effect of fruit and vegetables.

Yinka Ebo of Cancer Research UK said: "It's still a good idea to eat your five-a-day but remember that fruits and vegetables are pieces in a much larger lifestyle jigsaw.

"There are many things we can do to lower our chances of developing cancer such as not smoking, keeping a healthy weight, cutting down on

alcohol, eating a healthy balanced diet, being physically active and staying safe in the sun."