High fibre cereals are just one type of fibre which were shown to help prevent colorectal cancer.

Eating more cereals and whole grains could reduce the risk of developing colorectal cancer, a BMJ study says.

Researchers from Imperial College London found that for every 10g a day increase in fibre intake, there was a 10% drop in the risk of bowel cancer.

But their analysis of 25 previous studies found that fruit and vegetable fibre did not reduce risk.

A cancer charity called for more detailed research on the quantity and type of fibre to eat.

Eating fibre and whole grains is known to help protect against cardiovascular disease, but experts say that any link with colorectal cancer is less clear because studies have not had consistent results.

Reviewing the results of all previous observational studies in this area, researchers in London, Leeds and the Netherlands analysed data provided by almost two million people.

Their conclusion, published in the British Medical Journal, is that increasing fibre intake, particularly cereal fibre and whole grains, helps prevent colorectal cancer.

Continue reading the main story

“Start Quote

Eating plenty of fibre is just one of many things you can do to lower your risk of developing the disease”

End Quote Yinka Ebo Cancer Research UK

Whole grains include foods such as whole grain breads, brown rice, cereals, oatmeal and porridge.

Dagfinn Aune, lead study author and research associate in the department of epidemiology and biostatistics at Imperial College London, said their analysis found a linear association between
dietary fibre and colorectal cancer.

"The more of this fibre you eat the better it is. Even moderate amounts have some effect."

Adding three servings (90g per day) of whole grains to diets was linked to a 20% reduction in the risk of colorectal cancer, researchers said.

Cancer Research UK data shows that the lifetime risk of being diagnosed with colorectal cancer in the UK is estimated to be one in 14 (6.9%) for men, and one in 19 for women (5.4%).

However, the study said there was no evidence that fibre in fruit and vegetables played a part in reducing risk.

A previous study which showed a reduction in risk with high intake of fruit and vegetables suggests that compounds other than fibre in fruit and vegetables could account for this result, said the authors.

They also said that the health benefits of increasing fibre and whole grains intake was not restricted to colorectal cancer.

"It is also likely to reduce the risk of cardiovascular disease, type 2 diabetes, overweight and obesity, and possibly overall mortality," the researchers said.

Protecting grains
Mark Flanagan, chief executive of Beating Bowel Cancer, said the research supported the charity's current advice.

WHAT ARE WHOLE GRAINS?

- Whole grain breads
- Whole grain rye breads
- Whole grain cereals
- High fibre cereals
- Brown rice
- Oatmeal
- Porridge

"These results support what we already know about the link between dietary fibre and a reduced risk of bowel cancer, although more work is needed to clarify the quantity and types of fibre we should be eating to reduce risk.

"We recommend that people eat a healthy balanced diet that includes plenty of dietary fibre, such as grains, cereals, fruit and vegetables to reduce the risk of developing bowel cancer.

"It is encouraging to know that simple changes to your diet and lifestyle could help protect you from the UK's second biggest cancer killer."

Yinka Ebo, senior health information officer at Cancer Research UK, said the review added weight to the evidence that fibre protects against bowel cancer.

"It shows that certain sources of fibre, such as cereal and whole grains, are particularly important."
"Eating plenty of fibre is just one of many things you can do to lower your risk of developing the disease, along with keeping a healthy weight, being physically active, cutting down on alcohol, red and processed meat, and not smoking."

In an accompanying editorial in the BMJ, Professor Anne Tjonneland from the Danish Cancer Society, said whole grain products should be made more appealing to shoppers.

"To increase the intake of these foods in Western countries, the health benefits must be actively communicated and the accessibility of whole grain products greatly improved, preferably with a simple labelling system that helps consumers to choose products with high whole grain contents."

Cancer of the large bowel, also known as colorectal cancer, is a common form of cancer in developed countries - but occurs much less frequently in the developing world.

18 October 2011 Last updated at 00:50 GMT

**Bacterium linked to bowel cancer**

By Michelle Roberts Health reporter, BBC News

A barium X-ray can reveal the site of the tumour

A type of bacterium known to cause dental decay and skin ulcers may also be linked to bowel cancer, scientists suspect.

Two independent research teams have now found the bug Fusobacterium in colon tumours.

It's not yet clear if the pathogen might cause cancerous changes or whether it is an incidental finding, they told Genome Research journal.

If it is to blame, antibiotics might be able to treat it and prevent cancer.

Bowel cancer is the third most common cancer in the UK after after breast and lung.

Although the exact cause of bowel cancer is unknown, there are certain factors that increase risk, such as a strong family history of the disease and older age.

It may be that Fusobacterium infection can be added to that list, according to the experts, but they say much more work is needed to establish this.

The infection has already been linked with a gut condition called ulcerative colitis which is itself
a risk factor for bowel cancer.

**Early warning signs and symptoms**

- A persistent change in normal bowel habit, such as going to the toilet more often and diarrhoea, especially if you are also bleeding from your back passage
- Bleeding from the back passage without any reason, particularly over the age of 50
- A lump in your tummy or a lump in your back passage felt by your doctor
- Unexplained iron deficiency in men or in women after the menopause
- Unexplained extreme tiredness

And other cancers are known to be linked with certain bacteria and viruses - for example, HPV and cervical cancer.

The first study, led by Dr Robert Holt from Simon Fraser University in Canada, identified Fusobacterium's hallmark in RNA present in bowel cancer tumours. RNA is genetic material similar to DNA which is involved in transmitting and translating the genetic code.

The other team, led by Dr Matthew Meyerson from the Dana-Farber Cancer Institute in Boston, US, found microbial sequences of DNA indicative of Fusobacterium.

Together, they looked at more than 100 samples of healthy and cancerous bowel tissue.

Sarah Williams, of Cancer Research UK, said the research gave a clue about the environment in which bowel cancer grows, but added: "It's early days and we look forward to the results of more specific, in-depth studies.

"In the meantime, people can reduce their risk of bowel cancer by not smoking, cutting down on alcohol, keeping a healthy weight, being active, reducing the amount of red and processed meat in their diet and eating plenty of fibre."

---

Vegetarians 'avoid more cancers'

Page last updated at 22:59 GMT, Tuesday, 30 June 2009 23:59 UK
Vegetarians are generally less likely than meat eaters to develop cancer but this does not apply to all forms of the disease, a major study has found.

The study involving 60,000 people found those who followed a vegetarian diet developed notably fewer cancers of the blood, bladder and stomach.

But the apparently protective effect of vegetarian did not seem to stretch to bowel cancer, a major killer.

The study is published in the British Journal of Cancer.

Researchers from universities in the UK and New Zealand followed 61,566 British men and women. They included meat-eaters, those who ate fish but not meat, and those who ate neither meat nor fish.

VEGETARIANS GOT NOTABLY FEWER OF THESE CANCERS:
- Stomach
- Bladder
- Non-Hodgkin's lymphoma
- Multiple myeloma

Overall, their results suggested that while in the general population about 33 people in 100 will develop cancer during their lifetime, for those who do not eat meat that risk is reduced to about 29 in 100.

**Special protection?**

The researchers said they found marked differences between meat-eaters and vegetarians in
the propensity to cancers of the lymph and the blood, with vegetarians just over half as likely to develop these forms of the disease.

In the case of multiple myeloma, a relatively rare cancer of the bone marrow, vegetarians were 75% less likely to develop the disease than meat-eaters.

"At the moment these findings are not strong enough to ask for particularly large changes in the diets of people following an average balanced diet."

Professor Tim Key
Report author

The reduction was less notable for fish-eaters with these cancers. The reasons, researchers said, were unclear, but potential mechanisms could include viruses and mutation-causing compounds in meat - or alternatively that vegetables confer special protection.

There were also striking differences in rates of stomach cancer. Although the numbers of cases were small, fish-eaters and vegetarians were about a third as likely to develop the disease as meat-eaters.

Previous research has already implicated processed meats in stomach cancer, so these findings were not entirely surprising. It is thought N-nitroso compounds found in these meats may damage DNA, while the high temperatures they are cooked at may also produce carcinogens.

But the same reduction for vegetarians was not found with cancers of the bowel, one of the most common forms of the disease. The vegetarians in the group in fact had a slightly higher rate of cancers of the colon and the rectum, although not significantly so.

But the relative risk for fish-eaters and vegetarians of cervical cancer was twice that of meat-eaters. The number of cases was small, and could be down to chance but the researchers said it was possible that dietary factors influenced the virus behind cervical cancer.

Professor Tim Key, the lead author, said it was impossible to draw strong conclusions from this one single study.

"At the moment these findings are not strong enough to ask for particularly large changes in the diets of people following an average balanced diet."

Vegetarian diets tend be lower in fat and higher in fibre, but they can require careful planning to ensure necessary protein and vitamins - notably B12, which is mainly derived from animal products - are taken in sufficient amounts.

'Complex process'

A spokesperson for Cancer Research UK, which funded the research, said: "These interesting results add to the evidence that what we eat affects our chances of developing..."
cancer. We know that eating a lot of red and processed meat increases the risk of stomach cancer.

"But the links between diet and cancer risk are complex and more research is needed to see how big a part diet plays and which specific dietary factors are most important.

Myeloma UK said this was the first data of its kind for the bone marrow cancer "and for that reason we are treating it with caution.

"Dietary advice to myeloma patients remains aligned with national guidance - that they should eat a healthy, balanced diet high in fibre, fruit and vegetables and low in saturated fat, salt and red and processed meat."

Dr Panagiota Mitrou, Science and Research Programme Manager for the World Cancer Research Fund, said: "The suggestion that vegetarians might be at reduced risk of blood cancers is particularly interesting.

"However, this finding should be treated with caution since not much is known about the link between diet and these types of cancer. Further studies of vegetarians are needed before we can be confident this is actually the case."