# **Eating red meat six times a week could increase chances of getting painful bowel disease**

## Men who regularly eat red meat have a much higher chance of developing diverticulitis, a study has found

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Regularly eating red meat could increase the chance of getting bowel disease by almost 60 per cent, a new study has found.

Eating six meals per week containing meats such as lamb, beef, pork or burgers could bump up the chances of developing diverticulitis - a bowel disease characterised by painful abscesses.

The large study of US men also found the risk of diverticulitis increases by 18 per cent for each day of the week that red meat is eaten - and eating chicken or fish as a substitute reduces this risk.

Diverticulitis occurs when the small pockets or bulges lining the intestine become inflamed and painful abscesses, scarring and fistulas form in the gut.

It is estimated five per cent of Britons have diverticulitis by the time they are 40 and at least half have it by the time they are 80, according to the NHS.

Dr Yin Cao, from the Massachusetts General Hospital and Harvard Medical School, said in the British Medical Journal: "We identified unprocessed red meat, but not processed red meat, as the major driver for the link between red meat and diverticulitis.

"In contrast, higher consumption of poultry or fish was not linked with risk of incident diverticulitis.

"However, substitution of one serving of unprocessed red meat per day with poultry or fish was associated with a 20% lower risk of diverticulitis."

Not much is known about what causes diverticulitis but it has been linked to smoking, lack of fibre, little exercise and obesity, according to the researchers.

They followed the diets of 46,500 men between the ages of 40 and 75 over the course of 26 years to find out more about what causes the disease.

Every four years they were asked to state how often they had eaten standard size portions of red meat, poultry and fish.

They were given nine options, ranging from 'never' or 'less than once a month,' to 'six or more times a day.'

During the 26-year monitoring period, 764 men developed diverticulitis.

Dr Cao said: "Recently, the incidence of diverticulitis has been rising, particularly in young individuals.

"Approximately 4% of patients with diverticula develop acute or chronic complications including perforation, abscess and fistula.

The researchers found that men who ate unprocessed red meat six times a week had a 58 per cent higher risk of developing diverticulitis - even when other risk factors such as smoking and lack of exercise were taken into consideration.

They also discovered that substituting one daily portion of unprocessed red meat with fish or poultry cut the chances of developing bowel disease by 20 per cent.

It is not yet understood why eating red meat increases the risk of bowel disease, but researchers suspect that unprocessed red meat could upset the community of bacteria - known as the microbiome - that lives inside the human gut.

Dr Cao said: "The gut microbiome may also mediate the link between red meat and diverticulitis.

"Emerging evidence suggest that short-term and long-term diet, particularly red meat intake, alters the microbial community structure.

"Although a direct link between the gut microbiome and diverticulitis is yet to be established, it is recently hypothesised that changes in intestinal microbiota composition may play a similar role in the development of diverticular disease and its complications."

She added that unprocessed meat may be more harmful than processed meat because people tend to eat larger portions of unprocessed food.

She said: "Compared with processed meat, unprocessed meat for example steak is usually consumed in larger portions, which could lead to a larger undigested piece in the large bowel and induce different changes in colonic microbiota.

"In addition, higher cooking temperatures used in the preparation of unprocessed meat may influence bacterial composition or proinflammatory mediators in the colon.

"These hypotheses need to be confirmed by other studies."

She added that because the research was only undertaken on men, the findings may not apply to women.