# **Eating four ham or bacon sandwiches a week could make asthma symptoms worse, study suggests**

Preservatives in processed meat could inflame the airwaves and lead to breathing problems

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Eating [processed meat](http://www.independent.co.uk/life-style/health-and-families/health-news/cancer-definitely-caused-by-processed-meat-what-you-need-to-know-a6709266.html) such as ham, bacon and sausages four times a week or more could make asthma symptoms worse, new research has found.

A study of nearly 1000 people found those with the highest intake of cured and processed meat were 76 per cent more likely to experience symptoms including shortness of breath and chest tightness which worsened over time than those who ate the least.

Preservatives used in processed meat called nitrates could inflame the airwaves and lead to breathing problems, according to the study published in [respiratory medicine journal Thorax](http://thorax.bmj.com/content/early/2016/11/25/thoraxjnl-2016-208375.short?g=w_thorax_ahead_tab).

"Higher cured meat intake was associated with worsening asthma symptoms over time," the study concluded.

"This research extends the deleterious effect of cured meat in health, and the effect of diet on asthma in adults."

The study also suggested a high intake of processed meats could cause asthma symptoms in those who have never had the disease, although it said further research was needed to clarify potential differences related to asthma status.

"In participants with asthma, worsening symptoms capture relapse or exacerbation of the disease, and in participants without asthma, worsening symptoms coincide with the asthma incidence and activity," it said.

Meat which is smoked, cured, has added salt and preservatives or is otherwise modified to change its taste or keep it fresh for longer has been [previously found to cause cancer](http://www.independent.co.uk/news/science/red-meat-processed-meat-death-mortality-health-cancer-heart-disease-vegetarian-vegan-diet-a7016986.html).

Consuming 50g of processed meat a day – about one sausage or two slices of ham – increases the risk of developing colon cancer by 18 per cent, according to the World Health Organisation.

The research, which analysed data from the French Epidemiological study on the Genetics and Environment of Asthma (EGEA), examined whether there is a link between cured meat intake and asthma symptoms and what role, if any, obesity might have.

Dietary intake was measured using food frequency questionnaires asking about participants' consumption of 118 items in 46 food groups.

Intake of [ham, sausage and salami](http://www.independent.co.uk/topic/Sausages) was classified as low for one or fewer weekly servings, medium for one to four weekly servings and high for four or more.

Asthma symptoms such as difficulty breathing, chest tightness and shortness of breath in the preceding 12 months were scored from zero to five.

Participants said they ate an average of two and a half servings of cured or processed meat a week.

Among those who ate one or fewer weekly servings, the proportion of those with worsening asthma symptoms was 14 per cent.

Of those eating one to four servings a week, the proportion was 20 per cent, and for those eating four or more, the proportion was 22 per cent.

Information was also gathered on other potentially influential factors, such as [smoking](http://www.independent.co.uk/topic/Smoking), regular physical activity, age, sex and educational attainment.

The researchers used this to calculate that those who ate the most cured meats were 76 per cent more likely to experience worsening asthma symptoms than those who ate the least.

As the study responses relied on memory, the researchers stressed they were not able to draw firm conclusions about cause and effect from their findings, and recommended a healthy and varied diet.