

# High dietary processed meat intake linked to worsening asthma symptoms

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A high dietary intake of cured and processed meats, such as ham and salami, is linked to worsening asthma symptoms, reveals research published online in the journal *Thorax*.

Four or more weekly servings seem to have the greatest impact on symptoms, the findings suggest.

Cured and [processed meat](#) is rich in nitrites, which may have a role in airway inflammation—a typical feature of asthma.

To find out if dietary processed [meat intake](#) was associated with the worsening of asthma symptoms over time, and what role, if any, obesity might have, the researchers drew on data from participants in the French Epidemiological study on the Genetics and Environment of Asthma (EGEA).

This has been tracking the health through surveys and medical examination of more than 2000 [asthma patients](#), their close relatives, and a comparison group from five cities in France for more than 20 years.

The current study is based on 971 adults (49% men) for whom complete dietary, weight (BMI), asthma symptom score and demographic data were obtained up to 2011-13.

Dietary intake was measured using food frequency questionnaires encompassing 118 items in 46 food groups. Cured meat intake (ham, sausage, salami) was classified as low for 1 or fewer weekly servings; medium for 1-4 weekly servings; and high for 4 or more.

Asthma symptoms, such as difficulty breathing, chest tightness, and shortness of breath in the preceding 12 months, were scored from 0 to 5 (asthma symptom score).

Information was also gathered on other potentially

influential factors, such as smoking, regular physical activity, age, sex, and educational attainment.

Between 2003 and 2007, 42% of the participants said they had had asthma at some point, and around half (51%) had never smoked. Just over a third (35%) were overweight, while nearly one in 10 (9%) were obese.

Participants said they ate an average of 2.5 servings of cured/processed meat intake a week.

By 2011-13, when the next checks were made, there had been no change in asthma symptom score for just over half the participants (53%; 513). In one in five (20%) symptoms had worsened and in around one in four (27%) symptoms had improved.

Among those who ate one or fewer weekly servings, the proportion of those with worsening asthma symptoms was 14%; among those eating 1-4, the proportion was 20%; and among those eating 4 or more, the proportion was 22%.

After taking account of potentially influential factors, such as smoking, [regular physical activity](#), age, sex, and [educational attainment](#), those who ate the most cured meats were 76% more likely to experience worsening asthma symptoms than those who ate the least.

Overweight/obesity, which has previously been linked to worsening asthma, accounted for just 14% of this association, the calculations showed, suggesting that processed meat intake may have an independent role in [asthma symptoms](#), say the researchers.

This is an observational study, so no firm conclusions can be drawn about cause and effect. Furthermore, the survey responses relied on memory and the symptom score may have been affected by smoking or by COPD—chronic lung

disease that shares many of its symptoms with asthma—say the researchers.

Nevertheless, research from other countries points to a potential role for cured/processed meats in lung function and health, say the researchers.

"This research extends the deleterious effect of cured meat on health, and the effect of diet on asthma in adults, and provides a novel analytic approach regarding the role of BMI in the diet-[asthma](#) association," they conclude.

**More information:** Cured meat intake is associated with worsening asthma symptoms, [thorax.bmj.com/lookup/doi/10.1136/thoraxjnl-2016-208375](https://thorax.bmj.com/lookup/doi/10.1136/thoraxjnl-2016-208375)

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