



... just the FACTS

Study summaries examining the latest science on beef's place in a healthy diet

META-ANALYSIS CONCLUDES UNPROCESSED RED MEAT IS NOT A RISK FACTOR FOR OBESITY

OBJECTIVE:

To conduct a systematic review and meta-analysis of controlled dietary intervention trials examining the effect of unprocessed red meat intake on obesity-related outcomes in adults. The author's note this is the most comprehensive review of controlled trials to examine this.

STUDY DESIGN:

PRISMA guidelines were used to report this systematic review and meta-analysis of controlled trials, including randomized controlled trials (RCTs) and randomized crossover trials (RCOs).

A key strength of this analysis: is that it is based on controlled trials designed to show cause and effect, unlike prior analyses of observational studies incapable of demonstrating causality.

DATA:

This study included 19 clinical trials examining associations between unprocessed red meat intake and body mass index (BMI), body weight, percent body fat, and a variety of blood lipids.

METHODS:

This meta-analysis calculated pooled effect sizes for each outcome and included risk of bias analysis, outlier analysis, sensitivity analysis, and publication bias analysis.

For transparency, the authors developed an interactive dashboard that allows readers to explore all the data, calculations, and code used in this analysis.

RESULTS:

This meta-analysis found:

- Unprocessed red meat had no significant effect on measures of obesity, including on body weight, BMI, or percent body fat.
- Overall, the authors concluded there was no notable impact on HDL cholesterol, LDL cholesterol or triglycerides.

CONCLUSION:

This comprehensive meta-analysis of RCTs and RCOs concludes "studies did not show an effect of unprocessed red meat on weight gain, obesity or related metabolic conditions."

FOR YOUR PRACTICE:

The authors note:

- "Unprocessed red meat consumption has declined in recent years, whereas the prevalence of obesity, type 2 diabetes, and cardiovascular disease has increased."
- "...unprocessed red meat, which is a good source of high-quality protein, may be strategically placed in the daily diet to increase compliance with a weight loss diet and thereby support greater weight loss/maintenance."

Akheruzzaman M et al. Effect of unprocessed red meat on obesity and related factors: A systematic review and meta-analysis. Obesity 2025;doi:10.1002/oby.24322. Epub ahead of print.