… just the FACTS

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

RED MEAT INTAKES >490 g/WEEK HAVE NO ADVERSE EFFECT ON GLYCEMIC CONTROL OR INFLAMMATION

STUDY DESIGN:

Meta-analysis and dose-response meta-regression of 20 RCTs (Randomized Controlled Trials).

OBJECTIVE:

To assess the effects of red meat intake on glycemic control and inflammatory biomarkers (i.e., fasting glucose, insulin, HOMA-IR, HbA1c, CRP, IL-6, and TNF-α).

PARTICIPANTS:

Adults free of, but at risk of CVD or type 2 diabetes.

DETAILS:

	Meta-Analysis compared 35 g vs. <35 g /day	Meta-Regression explored Dose-response relationships
Intervention Length	3 to 16 (median = 8) weeks	2 to 24 (median = 6) weeks
Red Meat Intakes* g/day	71 to 215 (median = 122)	71 to 238 (median = 131)
Red Meat Intakes* g/week	497 to 1,505 (median = 854)	497 to 1,666 (median = 917)

* Cooked red meat intakes (mainly unprocessed beef and pork) during the red meat diet periods.

RESULTS:

- Red meat intake had no effect on biomarkers of glycemic control or inflammation in either analysis.
- Subgroup analyses showed no benefit of replacing red meat with other animal- or plant-based protein (e.g., poultry or soy).

CONCLUSION:

Consuming red meat (>490 g/week) has no adverse effect on glycemic control or inflammation, compared to other animal- or plant-based proteins.

O'Connor LE et al. Effects of total red meat intake on glycemic control and inflammatory biomarkers: a meta-analysis of randomized controlled trials. Adv Nutr 2021;12:115-127.

For information on this or other beef topics, email us at info@canadabeef.ca

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