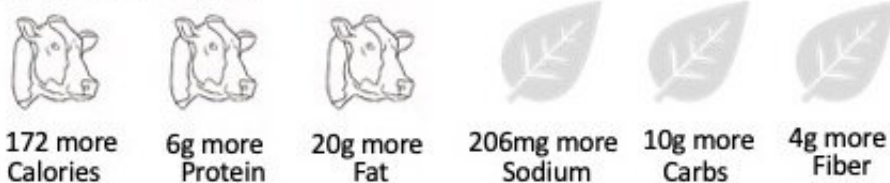


More protein, calories and fat in meat burgers

December 20 2021

A comparison of beef and plant-based burgers showed the following nutritional differences on average:



Credit: University of Massachusetts Amherst

In the largest-ever nutritional comparison of beef and alternative burgers available to U.S. consumers, a University of Massachusetts Amherst analysis found that packaged beef burgers on average contain more calories, protein, fat and cholesterol—and less sodium and fiber—than imitation and veggie burgers.

On average, veggie burgers contain the least fat, the most carbohydrates and the most vitamin A and vitamin C, while imitation burgers contain the most sodium, vitamin D, iron and potassium.

The findings, based on an analysis of 158 products—89 veggie burgers, 41 conventional burgers and 28 imitation burgers—were published in the *International Journal of Food Science and Nutrition*.

Sensory scientist and senior author Alissa Nolden, assistant professor of food science at the University of Massachusetts Amherst, says surveys have shown that consumers are very concerned about the nutritional value of meat-free burgers on the market.

"In one survey, taste was a huge reason why consumers were adopting changes, but nutrition was also a primary concern," she says. "And the top nutritional concern was protein."

Nolden compiled and analyzed the data with a team of students and co-authors, including then-high schooler Natalie Goeler-Slough who had won a Massachusetts Life Sciences Center apprenticeship. Goeler-Slough, a native of Northampton, is now studying at Haverford College in Pennsylvania.

Even as meat-eating increases globally, UMass Amherst food scientists are at the forefront of efforts to develop healthier, better-tasting and sustainable plant-based foods that mimic fish, milk, cheese and eggs, as well as meat.

Nolden, as a sensory scientist, focuses on the complexities of creating products to enhance food enjoyment. She notes the huge nutritional variability in the [burger](#) products on the market, which is important for consumers to be aware of when substituting beef for non-meat burgers.

"There are tons of options for consumers to try and they might not be aware of the nutritional differences," she says. "The goal of this study wasn't to say one product category is healthier than the other. We wanted to look at the nutrients, which can sometimes become a lower priority during [product development](#) because there is a strong focus on making the product taste delicious."

Consumers who read nutritional labels closely can make better choices

about their needs. "If you're looking to reduce your overall calories, then veggie burgers could be beneficial for some [consumers](#)," she says.

"People who are looking to consume veggie burgers don't need them to taste like meat; they can embrace the flavors and textures of those veggie ingredients. Unlike imitation meat, veggie burgers don't have to have as much protein as conventional burgers, which was a finding of this study."

It's more challenging to develop imitation burgers that are trying to match conventional burgers in their appearance, texture, taste and amount of protein. "You might think that because an imitation burger is plant-based it would be lower in things like saturated fat, when in fact in order to make it taste better they incorporate things like coconut oil," she says.

The burger development industry is the most important target of the study's findings, which Nolden says can help food scientists identify areas that need nutritional improvement.

The paper concludes, "These findings can help to inform future work related to determining important nutritional drivers for consumer acceptance and consumption, improving the nutritional content of the alternative product to match conventional products and informing on the potential nutritional implications of consuming a diet consisting of sustainable or plant-based products."

More information: Elizabeth Cole et al, Examination of the nutritional composition of alternative beef burgers available in the United States, *International Journal of Food Sciences and Nutrition* (2021). [DOI: 10.1080/09637486.2021.2010035](https://doi.org/10.1080/09637486.2021.2010035)

Provided by University of Massachusetts Amherst

Citation: More protein, calories and fat in meat burgers (2021, December 20) retrieved 26 April 2024 from <https://medicalxpress.com/news/2021-12-protein-calories-fat-meat-burgers.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.