

BETTER TOGETHER: BALANCING ANIMAL AND PLANT FOODS FOR BETTER NUTRITION

Health Canada recommends the regular intake of nutritious foods — vegetables, fruit, whole grains, and protein foods — as the foundation of healthy eating.¹ Protein foods are vital, so it's important to recognize the benefits of balancing animal- and plant-based foods. Growing evidence shows that eating a combination of animal and plant foods makes it easier for people to meet their nutrient needs.

Evidence That Balance Matters

A 2021 Canadian study showed that eating a combination of animal- and plant-based protein foods improves the nutrient quality of the diet.² This study found dietary patterns with more than 75% of protein derived from either plant or animal food sources can compromise nutritional adequacy.

While increasing protein from plant sources can improve dietary fibre and folate intakes, it also led to lower total protein, vitamin B₁₂, riboflavin, zinc, calcium, and vitamin D intakes.² In comparison, those with the highest intakes of protein from animal sources had higher protein, vitamin B₁₂, thiamin, niacin, and zinc intakes.

KEY TAKEAWAY: A diverse diet that includes both animal- and plant-based foods leads to healthier dietary patterns with more favourable nutrition profiles.

Value of Animal Source Foods

In 2023, the Food and Agriculture Organization of the United Nations (FAO) published a comprehensive review of the contributions of animal source foods to healthy diets.³ This review emphasized the value of meat, eggs, and milk as nutrient-rich foods in providing high-quality protein, essential fatty acids, vitamin B₁₂, choline, and minerals such as calcium, iron, and zinc.

The FAO encouraged governments to update their dietary guidelines to consider how meat, eggs, and milk can contribute to nutrient needs throughout people's lives.⁴

KEY TAKEAWAY: Meat, eggs, and milk provide much-needed nutrients that aren't as easily obtained from plant-based foods.

Filling Critical Nutrient Gaps

Analysis of the most current Canadian Community Health Survey Nutrition data revealed many Canadians have inadequate dietary intakes of several key essential nutrients found in animal protein foods.^{5,6} For example, nearly 30% of women aged 19 to 50 years consumed inadequate amounts of iron from foods.⁵

Health Canada researchers have identified iron deficiency as a public health problem of moderate magnitude among females of reproductive age.⁷ Based on its estimates, about one in four women aged 19 to 50 years has low iron.

LEAN PORK: This meat contains five essential nutrients many Canadians don't get enough of in their diet, including iron, zinc, vitamin B₁₂, vitamin B₆, and thiamin.^{5,6,8}



Leveraging the Meat Factor

Meat contains heme iron which is better absorbed by the body than the non-heme iron found in plant source foods such as legumes and leafy greens. Research shows as little as 50 grams of pork can significantly increase non-heme iron absorption from meals rich in phytate, found in grains, legumes, nuts and seeds.⁹ This phenomenon known as the “meat factor” can help to counteract the effects of phytate - a plant compound that inhibits non-heme iron absorption.¹⁰



HOW PORK CONTRIBUTES TO A HEALTHY DIET

- Including meat, such as lean pork, on the plate along with plant-based foods, can help increase the amount of iron and zinc absorbed from meals.^{9,10}
- Choosing lean pork can help improve intakes of protein and key essential nutrients (e.g., iron, zinc, B vitamins), while also minimizing energy, as well as saturated fat and sodium.¹¹
- Lean pork is an affordable source of high-quality protein with a smaller carbon footprint compared to several other protein options (including soy products).¹²

Striking a Healthy Balance

Canada's Food Guide recommends protein foods, including lean meats such as pork, as part of the foundation for healthy eating.^{1,13} With unique nutrient profiles, animal- and plant-based foods play complementary roles in meeting nutrient needs.² Pairing protein-rich foods, such as lean pork, chicken, and fish with plant foods such as vegetables, fruit, whole grains, legumes, nuts and seeds can help Canadians strike a healthy balance.

BETTER TOGETHER: Animal and plant foods bring complementary nutrient profiles to the table, helping to meet people's nutrient needs.

REFERENCES

1. Health Canada. 2019. [Canada's Food Guide - Canada's dietary guidelines](#).
2. Fabek H et al. [An examination of contributions of animal- and plant-based dietary patterns on the nutrient quality of diets of adult Canadians](#). *Appl Physiol Nutr Metab* 2021;46:877-886.
3. FAO. 2023. [Contribution of terrestrial animal source food to healthy diets for improved nutrition and health outcomes - An evidence and policy overview on the state of knowledge and gaps](#). Rome, FAO.
4. FAO. 2023. [Meat, eggs and milk essential source of nutrients especially for most vulnerable groups, new FAO report says](#).
5. Ahmed M, Ng AP, and L'Abbe MR. Nutrient intakes of Canadian adults: results from the Canadian Community Health Survey (CCHS)-2015 Public Use Microdata File. *Am J Clin Nutr* 2021;114(3):1131-1140.
6. Ng A, Ahmed M and L'Abbe M. 2021. [Nutrient intakes of Canadian children and adolescents: Results from the Canadian Community Health Survey \(CCHS\) 2015 - Nutrition public use microdata files](#).
7. Cooper M et al. [Population iron status in Canada: Results from the Canadian Health Measures Survey 2012-2019](#). *J Nutr* 2023;153(5):1534-1543.
8. Health Canada. 2015. Canadian Nutrient File. Pork, composite cuts, leg, loin and shoulder, lean, cooked. Food Code 6945. Nutrient values per 100 g.
9. Bösch S et al. [Nonheme-iron absorption from a phytate-rich meal is increased by the addition of small amounts of pork meat](#). *Am J Clin Nutr* 2003;77(1):173-179.
10. Gonzalez F et al. [The effect of the meat factor in animal-source foods on micronutrient absorption: A scoping review](#). *Adv Nutr* 2022;13:2305-2315.
11. An R et al. [Fresh and lean pork consumption in relation to nutrient intakes and diet quality among US adults](#). *NHANES 2005-2016*. *Health Behavior and Policy Review* 2019;6(6):570-581.
12. Drewnowski A. Perspective: [The place of pork meat in sustainable healthy diets](#). *Adv Nutr* 2024;15(5):100213.
13. Health Canada. 2019. [Canada's Food Guide](#).



**PICK
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