



Mandatory Front-of-Package (FOP) Nutrition Labelling Position Statement on Ground Meats

POSITION

Ground beef and ground pork should be exempt from Health Canada's proposed front-of-package (FOP) nutrition labelling.

RATIONALE

- Ground meats are nutritious foods similar to foods that have exemptions from front-of-package nutrition labels such as non-flavoured whole and partly skimmed milk, whole eggs, vegetables, and fruit.
- Fresh red meats (beef, pork, veal, and lamb, including grinds and burgers) contribute just 9% of saturated fat to the diet of Canadians. The FOP regulations should focus on ultra-processed foods which make up 44% of the saturated fat calories that Canadian adults consume.
- Similar to milk being recognized as a reliable source of calcium, ground red meats should be recognized as a reliable source of bioavailable iron. Canadian dietary guidance recognizes the critical importance of offering iron-rich foods to infants starting at 6 months of age. The nutrition guidance for infants is at odds with the proposed application of FOP labelling to ground meat.
- Iron deficiency anemia during pregnancy has been associated with poor maternal and child health outcomes. In 2021, University of Toronto researchers found half of the pregnant women (52.8%) who were screened for iron deficiency with a ferritin test were iron deficient, and nearly one quarter (23.8%) were severely iron deficient.
- Similar to eggs, ground red meats are nutrient-dense protein foods that contribute iron, zinc, vitamin B12 and other essential nutrients that many Canadians need more of in their diets.
- FOP labelling of whole, single-ingredient foods contradicts the foundational principles of healthy eating and will distract from the real nutrition priority – Canadians need to reduce their consumption of ultra-processed foods.

Mandatory Front-of-Package (FOP) Nutrition Labelling Position Statement on Ground Beef and Ground Pork

POSITION

Ground beef and ground pork should be exempt from Health Canada's proposed front-of-package (FOP) nutrition labelling – like other nutritious foods, such as single ingredient meat, milk, eggs, vegetables and fruits. Ground meats are nutrient-dense protein foods that contribute iron, zinc, vitamin B₁₂ and other essential nutrients that many Canadians need more of in their diets. Approximately half of calories Canadians consume come from nutrient poor ultra-processed foods. Health Canada's proposed mandatory front-of-package (FOP) labelling regulations would require ground beef and ground pork sold at retail to carry a "high in" saturated fat label. FOP labelling of whole, single-ingredient foods contradicts the foundational principles of healthy eating and will distract from the real nutrition priority – Canadians need to reduce their consumption of ultra-processed foods.

SUMMARY: THE CASE AGAINST FOP LABELS FOR GROUND MEAT IN CANADA

- Applying the front-of-pack labels to ground meat distracts from the priority nutrition concerns for Canadians. It is a negative approach to dealing with nutrient-dense whole foods.
- The goal of providing quick and easy guidance to help consumers make informed choices, while well-intended, misses the mark when "high in" FOP warning labels are applied to nutrient-dense, single-ingredient foods, like ground beef and ground pork.
- Nearly half of the calories Canadians consume come from ultra-processed foods, according to Canadian Community Health Survey – Nutrition data.
- The World Heart Federation recommends that the principal message to consumers for FOP labelling be that they should avoid ultra-processed foods and focus on 'real food'.
- Ground meats are a nutritious, convenient, familiar, and affordable staple food for many Canadian families. A relatively small serving of red meat provides many of the essential nutrients Canadians don't get enough of in their diet.
- Red meat consumption is moderate. The consumption of nutrient-dense protein foods such as beef, pork, and milk has steadily declined in Canada.
- Meanwhile, obesity rates have increased dramatically. This is attributed in large part to the over consumption of ultra-processed, energy-dense, nutrient-poor foods.
- Based on the proposed FOP labelling regulations, some nutrient-poor and ultra-processed foods like certain cookies, chips and diet soda would not display a FOP label, since they do not exceed the thresholds for sodium, saturated fats and/or sugars.
- Fresh red meats (beef, pork, veal and lamb, including grinds and burgers) contribute just 7% of total fat and 9% of saturated fat to the diet of Canadians. Foods 'outside' the Food Guide, make up 44% of the saturated fat calories that Canadian adults consume.
- Health Canada recognizes iron as a nutrient of concern. With higher requirements for iron, women of childbearing age and infants are already at risk of iron deficiencies. Beef is well-recognized as a source of bioavailable heme iron. Canadians should be encouraged to choose ground beef as a nutrient-dense food, not be fearful to do so.
- FOP labelling of whole, single-ingredient foods could potentially result in unintended perceptions and behaviours, such as:
 - Unnecessary consumer confusion about healthy food choices, 'food fear'
 - Further increases in consumption of ultra-processed foods not requiring a FOP label

- Decreased protein, iron, zinc and vitamin B₁₂ intakes
- Putting some Canadians at nutritional risk

INTRODUCTION

In February 2018, Health Canada's proposed regulations amending the Food and Drug Regulations (Nutrition Symbols, Other Labelling Provisions, Partially Hydrogenated Oils and Vitamin D) were published in Canada Gazette Part I.¹ The proposed regulations highlight the need to address the growing prevalence of major chronic diseases in Canada, such as cardiovascular diseases (heart disease and stroke), some cancers, and type 2 diabetes. Health Canada recognizes obesity as a key driver of chronic disease (with over one in four adults obese and one in three children overweight or obese) and unhealthy diets as a key risk factor.

BACKGROUND

As part of Health Canada's Healthy Eating Strategy,² which aims to make healthy eating easier for Canadians, Health Canada is proposing to require a FOP nutrition symbol on foods high in saturated fat, sugars and/or sodium.¹ According to Health Canada's 2015 Evidence Review for Dietary Guidance Technical Report, "many Canadians need to eat differently to improve the quality of their diet."³ Among other findings, about one-third of total calories in the diet of Canadians were found to come from foods higher in fat, sugar, or salt.³

Health Canada is proposing the new FOP labelling strategy with the goal of helping Canadians to quickly and easily identify prepackaged foods that are high in saturated fat, sugars, and/or sodium.⁴ Health Canada considers these as nutrients of concern based on associations with chronic diseases.³ The ultimate goal is to improve diet quality and promote the health of Canadians.

THRESHOLDS FOR FOP LABELS

Based on Health Canada's proposed regulations, FOP labelling will be triggered if the saturated fat, sugars and/or sodium, as declared on the Nutrition Facts table (NFt) of a prepackaged food, exceeds the threshold of 15% of the daily value (DV) per reference amount of the food, as sold.⁴

For example, for ground beef, the amount of saturated fat listed will be based on 100 grams (the reference amount) of raw ground beef. If the amount of saturated fat (which includes saturated plus trans fat) in the reference amount exceeds 3 grams, then a FOP label would be required.

PROPOSED EXEMPTIONS

Health Canada is proposing to exempt certain foods from mandatory FOP nutrition labelling.⁴ Many nutrient-dense, unprocessed or minimally processed, single ingredient, whole foods will not be required to display FOP symbols, such as vegetables and fruits, plain milk (whole and partly skimmed), eggs, and raw single ingredient meats, with the exception of ground meats.

Health Canada is also proposing exemptions for most vegetable oils, sweetening agents such as table sugar, honey and syrups, as well as table salt and flavoured salts (e.g., garlic salt).⁴

CONCERN RE: GROUND MEAT

Like all meat, ground beef and ground pork are nutrient-dense, whole, single ingredient protein foods. However, based on the proposed FOP regulations, since ground meat packaging must display a NFt, ground beef and ground pork will be required to carry a FOP label identifying it as high in saturated fat.

According to nutrient values displayed on the NFts, all ground meats have a saturated fat level that exceeds the 15% daily value (DV) threshold. Based on the proposed FOP nutrient thresholds:

- FOP labelling is triggered if > 3 g saturated fat (or 15% DV) is declared on the NFt, based on the reference amount for the food as sold (i.e., 100 grams raw ground meat).
- The measure of saturated fat for FOP labelling is based on the total of NFt values for both saturated fat plus trans fat.

Calculations for saturated fat (based on saturated + trans fat) in 100 grams raw (as sold):

Extra Lean Ground Beef = 3.3 g (based on Saturated + Trans fat levels).

Therefore, Extra Lean Ground Beef (CNF code 4996) will not qualify to be FOP exempt.

Lean Ground Beef = 5.5 g (based on Saturated + Trans fat levels).

Therefore, Lean Ground Beef (CNF code 2683) will not qualify to be FOP exempt.

Lean Ground Pork = 6.0 g (based on Saturated + Trans fat levels).

Therefore, Lean Ground Pork (CNF code 6119) will not qualify to be FOP exempt.

71% of ground beef sales are extra-lean and lean and 76% of ground pork sales are extra-lean and lean.

DETAILED CONCERNS

- 1. Targeting nutritious, single-ingredient whole foods, like ground beef and ground pork, with FOP labels misses the mark and distracts from the real priority – i.e., limiting the consumption of prepackaged ultra-processed foods high in saturated fat, sugars and/or sodium.**

Health Canada's intent with the proposed FOP program is to steer Canadians towards nutrient-rich, wholesome foods that lead to healthful dietary patterns - and away from nutrient-poor, calorie-dense, poor-quality foods that Canadians consume in excess.

Given this goal, the proposed FOP program, while well-intended, misses the mark when applied to nutritious, single-ingredient, whole foods. Some nutritious foods, like ground meats, would have to display a FOP label, even though nutrient-dense protein foods such as meat are part of the foundation for healthy eating. This approach will have unintended negative consequences.

While governments around the world have considered a range of different FOP labelling approaches, the Codex Committee on Food Labelling has identified issues related to setting "high in" criteria.⁵ One issue is whether to use a nutrient focus and single-cut off versus considering the overall nutrient profile of the food. A single-nutrient approach in defining "high in" levels may be applicable to discretionary foods (energy dense non-

nutritive foods) but not to all foods, especially foods in the core food groups. Potato chips versus ground beef, for example. Codex is considering whether to exempt nutrient-rich foods and foods that nourish vulnerable groups from “high in” nutrition labelling.

According to the World Heart Federation (WHF) policy brief on FOP labelling (which “provides evidence-based, practical guidance that can be adapted to local contexts.”):⁶

The principal message to consumers should be:

Consumers should avoid ultra-processed foods and instead focus on “real foods”; that is, less processed, high-nutrient, preferably fresh foods.

Due to the negative impact of excess consumption of ultra-processed foods on cardiovascular health, obesity, diabetes, hypertension, and other conditions.

What foods should be labelled?

Pre-packaged processed and ultra-processed food products (UPP).

Manufacturers apply several persuasive elements to labels that drive consumers to buy products with excessive critical nutrients, reducing the relevance of nutrition information and consumer’s capacity to make informed decisions.

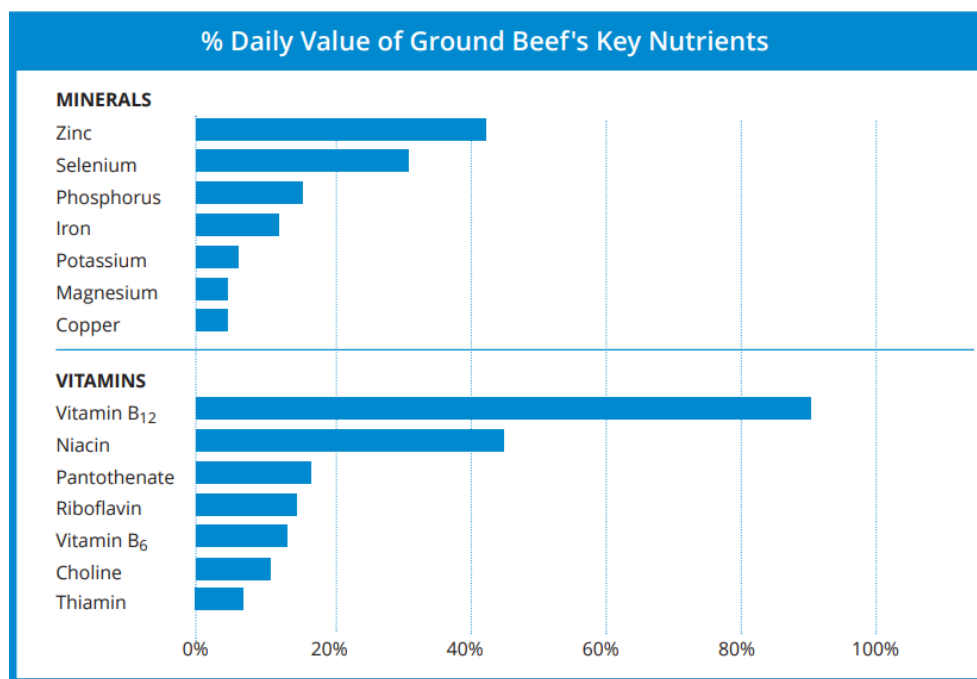
FOP labelling systems should:

- “be aligned with national public health and nutrition policies (dietary guidelines) and food regulations, as well as with relevant WHO guidance and codex guidelines.”
- “allow for easy and quick identification of ultra-processed and processed products that have an excess of key nutrients of concern, including sugar-sweetened beverages and high-fat or salty snacks, to contribute to the prevention of overweight and obesity and diet-related NCDs [chronic diseases].”

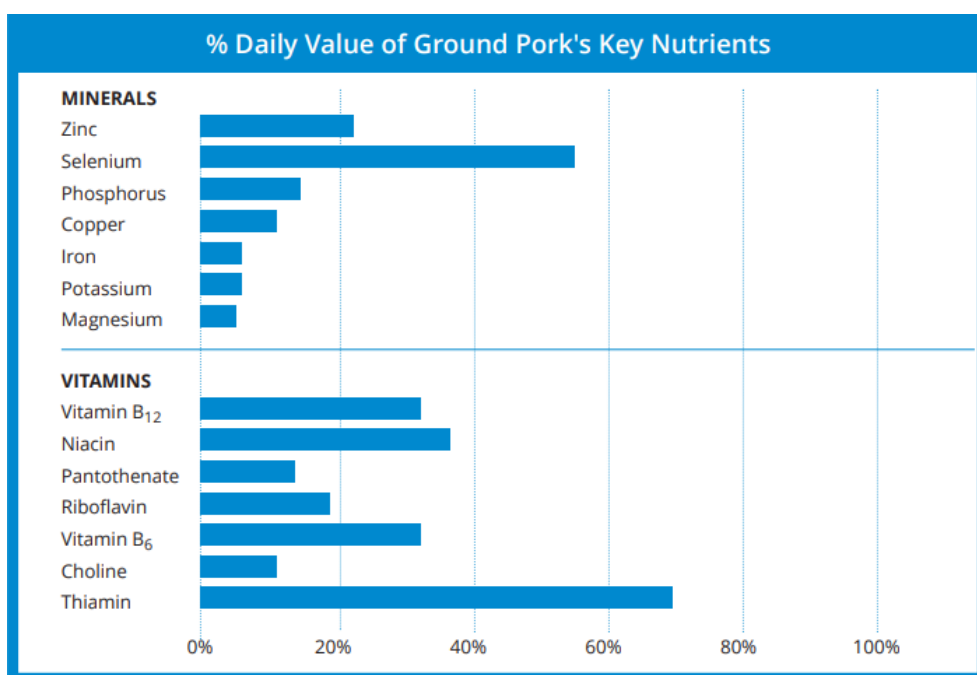
Canada’s Food Guide encourages Canadians to “**eat plenty of vegetables and fruits, whole grains and protein foods.**”⁷ Nutrient-dense, single ingredient, whole foods such as vegetables, fruit, whole grains, meat, poultry, fish, eggs, legumes, nuts and milk are recognized as the foundation for healthy eating. The Food Guide also recognizes it is important to eat a variety of healthy foods each day and to limit highly processed foods.

Ground meats are a mainstay for families as it is an affordable, quick, and easy to prepare family favourite. Like all beef and pork, the grinds are a nutritious source of complete protein that contains bioavailable heme iron and is an excellent source of niacin and vitamin B₁₂.⁸

These nutrients are essential to all Canadians and are of particular concern for certain demographics, such as women of childbearing age,⁹ including during pregnancy¹⁰ and lactation, infants¹¹ and toddlers¹² to name a few. In addition, research suggests people who eat red meat also tend to eat more vegetables and have lower body weights.¹³



Source: Health Canada. Canadian Nutrient File. 2015. Food Code Ground Beef 4996 (100 g, Extra lean, raw).



Source: Health Canada. Canadian Nutrient File. 2015. Food Code Ground Pork 6119 (100 g, Lean, raw).

As highlighted by the Heart and Stroke Foundation's 2015 position on Saturated Fat, the real nutrition concern for most Canadians lies in the over-consumption of nutrient-poor, ultra-processed foods.¹⁴ While public health efforts are needed to address this issue, these efforts should not distract or confuse consumers by labelling foods that are not part of this problem. As we will outline, Canadians do not currently consume too much red meat, while they do consume too many poor-quality pre-packaged foods. In fact, based on current research and nutrition guidance, certain groups, notably women of childbearing age^{9,10} and infants^{11,12} could benefit from eating more red meat, not less.

2. The diet quality of the average Canadian is poor. Nearly half of the calories Canadians consume come from ultra-processed foods.

Ultra-processed food consumption is alarmingly high, accounting for nearly half of Canadians' calorie intake based on Canadian Community Health Survey (CCHS) data.¹⁵ The ultra-processed food category includes fast food, sugary drinks, snacks, chips, candies, cookies, sweetened milk products, sweetened cereals, sauce and dressings. Key Statistics Canada findings based on the 2015 and 2004 CCHS data follow.¹⁵

Ultra-processed Food (UPF) intakes:

- “On average, UPF contributed just under half of total daily energy intake among Canadians both in 2004 (48%) and in 2015 (46%).”
- “Consumption of UPF was highest among children and adolescents. In these groups, UPF contributed over 50% of total daily energy in both survey years.”
- “Among adults aged 55 or older, UPF contributed a greater share of total daily energy in 2015 compared with 2004.”

Research commissioned by the Heart and Stroke Foundation, published in 2017 also found ultra-processed food consumption to be alarmingly high.¹⁶ Earlier analysis of food consumption trends in Canada, published by Moubarac et al. in 2014, also concluded that the most important factor that has driven changes in the dietary patterns of Canadians over the last century from 1938 to 2011 is the replacement of nutrient-dense foods classified as unprocessed or minimally processed foods (such as meat, milk, eggs, vegetables, fruit, nuts and seeds) with ultra-processed ready-to-eat food products.¹⁷ They found that the caloric share of ultra-processed food products rose from 29% to 62% during the study period, while the availability of dietary energy from unprocessed or minimally processed foods fell. These authors highlighted that these changes in food consumption patterns and the trends in obesity in Canada during the same period raise important concerns regarding obesity and chronic disease prevention.

We are concerned that despite this nutrient-poor food “crisis”, based on the proposed FOP labelling strategy, it appears some nutrient-poor ultra-processed foods (such as certain cookie brands, chips and diet soda for example) would not have to display a FOP label since they do not exceed the thresholds for saturated fat, sugars and/or sodium.

Furthermore, while Health Canada is proposing FOP labelling exemptions for other nutrient-dense, single ingredient protein foods such as milk, eggs, and cuts of meat, based on the proposed regulations, FOP symbols would be applied to all ground beef and ground pork.

3. Meat consumption is moderate and per capita availability has declined over time.

Most Canadians consume red meat in moderate amounts. On average, Canadians (1+ years) eat 41 grams of cooked unprocessed red meat per day (or 288 grams per week), according to Statistics Canada customized analysis of the 2015 CCHS-Nutrition data.¹⁸ Based on a 100 gram serving, this means that of the 21 meal occasions in a week, less than 3 include fresh red meat. In other words, fresh red meat, such as beef, pork, veal or lamb (including ground meat and burgers) is included in just 14% of weekly meals.

Statistics Canada annual food availability data indicates that the per capita availability of red meat and fluid milk have continued to decline over the last decade (from 2009 to 2019): “Beef availability was down 15.4% from 2009, to 15.5 kilograms, while pork availability was down 6.0% to 16.2 kilograms of boneless weight per person.”¹⁹

Earlier evaluation of food availability in Canada published by Slater et al. in 2009 indicates that while the estimated amount of energy available per capita from naturally nutrient-dense protein foods such as beef, milk and eggs declined since the 1970s, this has not led to better diet quality.²⁰ They documented a growing ‘energy gap’ in energy intake versus expenditure over the same period, with a net increase of 18% in the per capita availability of food energy. They found this has largely been driven by increases in calories from a few ingredients used in the manufacturing of energy-dense, nutrient-poor convenience foods including oils, shortenings, refined wheat flour, as well as soft drinks. Finally, they conclude that the rising prevalence of obesity in Canadian adults, which increased almost threefold from 1985 to 2003, correlates with this growing energy gap.

4. Ground meat makes a relatively small contribution to Canadians’ saturated fat intake. Whereas “other foods” are major contributors of saturated fat in the Canadian diet.

Using the 2015 CCHS-Nutrition data, researchers from Laval University analyzed where saturated fats are coming from in the diet of Canadian adults.²¹ Nearly half (44.3%) of calories from saturated fat came from foods not included in the Food Guide (“All other foods”).²¹ These are the very foods that FOP labels should call out. Manufacturers can reformulate these processed foods to fall below the thresholds for saturated fat, sugars and/or sodium, helping in part to fulfill the purpose of the proposed regulation.

Overall, this study found that on average, adults derive approximately 10% (10.4%) of their total daily energy intake (calories) from saturated fat; and, this has remained stable for the last 20 years. The World Health Organization (WHO) recommends that saturated fat intake not exceed 10% of calories.²²

Of the 10.4% of total daily energy from saturated fat, meats and alternatives accounted for approximately 25% of calories from saturated fat (i.e., 2.5% of total daily energy intake).²¹ It is important to note that this study examined saturated fat intakes in meat and alternatives as defined in the 2007 Food Guide (i.e., including all red meat, poultry, fish, eggs, beans, peas, lentils, peanut butter, nuts and seeds, tofu and soy products).

According to Statistics Canada analysis of 2015 CCHS survey data, unprocessed red meat intake (i.e., beef, pork, lamb and veal including ground meat and burgers) accounts for just 5% of Canadians’ total daily calories, 7% of total fat, and 9% of saturated fat.¹⁸ Importantly, ground beef would account for only a fraction of this amount.

Over the past 20 years, Canadians have demonstrated that they consistently tend to choose the leanest ground beef options - with Lean or Extra Lean ground beef representing 71% of the ground beef sold at retail.²³

5. Health Canada recognizes iron as a nutrient of concern for Canadians. Women of childbearing age and infants are particularly vulnerable to iron deficiency.

Red meats, such as beef, are well recognized as important sources of bioavailable iron and zinc as well as vitamin B₁₂. Ground beef can help Canadians meet their needs for these essential nutrients as an affordable, well-liked, convenient protein choice that’s

easy to incorporate into home cooked meals. Current research and recommendations suggest that many Canadians would benefit from eating more red meat, not less.

An analysis of the 2015 CCHS-Nutrition data published in 2021 by University of Toronto researchers concluded that “A significant number of Canadian adults may not be meeting recommendations for several essential nutrients, contributing to nutrient inadequacies.”⁹ Among other findings, their analysis indicates that certain Canadian adults, especially women, are at risk of inadequate intakes of iron, zinc and vitamin B₁₂ from the foods in their diet.

Prevalence of inadequate intakes from foods:

- **Iron** - Nearly 30% of women 19 to 50 years
- **Zinc** - At least 30% of women and 20% of men
- **Vitamin B₁₂** - As many as 21% of women

Moreover, another study published by University of Toronto researchers in 2021 indicates that iron deficiency may affect as many as half of pregnancies in Ontario, yet many pregnant women are not screened with a ferritin test.¹⁰ Only 59.4% of patients had their ferritin levels checked during pregnancy. Half of the pregnant women (52.8%) who were screened for iron deficiency with a ferritin test were found to be iron deficient, and nearly one quarter (23.8%) were severely iron deficient. These findings suggest that iron deficiency, the most common cause of anemia, is prevalent and under recognized in pregnant women. The authors note that iron deficiency anemia during pregnancy has been associated with poor maternal and child health outcomes. Women need even more iron during pregnancy to meet requirements for healthy fetal development.²⁴

Iron and zinc are particularly important for certain population groups, like infants, teen girls and women of childbearing age. Deficiencies can have permanent negative health consequences. For this reason, for example, Health Canada and other health authorities also recognize the critical importance of offering iron-rich complementary foods such as meat as first foods for infants, starting at 6 months,¹¹ and through the toddler years.¹² Ground beef is an ideal choice for making nutritious iron-rich meals for baby at home.

Health Canada’s 2015 Evidence Review for Dietary Guidance Technical Report, corroborates that some Canadians – especially women and older adults – already have inadequate intakes of iron, zinc, and vitamin B₁₂.³ Other groups, for example older adults over 70 years of age and adolescent girls, were identified with a high prevalence of inadequate intakes for *most* nutrients and low intakes from most of the food groups.

Health Canada’s Evidence Review for Dietary Guidance Technical Report also found that a significant number of Canadians consume less than the recommended number of servings for meat and alternatives:³

- 48% of women 31-50 years of age
- 69% of females older than 70 years of age
- 57% of adolescent males

Further reductions in red meat consumption by these population groups may lead to deficiencies affecting mental health, energy levels, and infant growth and development. **A modest serving of cooked red meat goes a long way - delivering many of the key nutrients needed for good health.** It is well recognized that iron, zinc and vitamin

B₁₂ play a role in protecting good health. These essential nutrients have been identified as shortfall nutrients for many Canadians, and women in particular. Given that red meats contribute to Canadians' essential nutrient intakes, we think that ground beef and ground pork should be exempt from FOP labelling.

6. All grinds are not created equal – they offer unique nutrient contributions.

It's important to note that there appears to be a mistaken 'health halo' in the assumption that ground beef can be equally substituted by ground poultry or plant-based formulated products. Each food has its unique nutrient profile, and these are not equal substitutions. Ground poultry and plant-based products formulated to simulate ground beef offer Canadians more choice; not better nutrition.

Ground beef has approximately twice as much iron, zinc and vitamin B₁₂ than ground poultry on average, with a difference of only 2 grams in saturated fat (an average of lean and extra lean ground beef – the most popular types of ground beef).²⁵ To get the same amount of these micronutrients, will require eating twice as much ground poultry.

Health Canada found many new 'plant-based' products introduced to Canadian grocery stores since the 2019 Canada's Food Guide was launched are high in saturated fat, sugar and/or sodium, and are not in line with Food Guide recommendations.²⁶ Many formulated plant-based protein products entering the market are highly processed and are arguably not healthier alternatives to animal-based protein foods such as beef. Recent studies indicate that there are large differences in the nutrients and metabolites found in ground beef versus plant-based grinds that are formulated to simulate meat.²⁷ Thus, they should not be considered as nutritionally similar or interchangeable.

It is also important to consider the bioavailability of essential nutrients such as iron and zinc. The benefit of meat is two-fold, (1) it supplies heme iron that is in a more bioavailable form than the non-heme iron found in plant sources, and (2) meat protein (commonly known as the meat protein factor) also enhances the absorption of non-heme iron. Research conducted in infants showed that adding ground beef to a vegetable meal enhances the absorption of non-heme iron from the meal by 150%.²⁸

Ground beef is a nutritious mainstay of home cooked meals for many, as a familiar and traditional protein food for generations of Canadians. Accounting for 83% of the grinds sold at retail, ground beef represents the largest portion of meals made with grinds.²³

Ground Meat Nutrient Comparison Chart

	Ref. Amount	Saturated fat g	Trans fat g	Total Sat + Trans fat g	%DV (sat + trans)	Iron mg	Iron %DV
Extra Lean Ground Beef, Raw (CNF 4996)	100g	3.0	0.3	3.3	17%	2.0	11%
Lean Ground beef, Raw (CNF 2683)	100g	5.0	0.5	5.5	28%	1.75	10%

Extra Lean Ground beef, Cooked (CNF 4998)	60g	2.5	0.2	2.7	14%	1.75	10%
Lean Ground Beef, Cooked (CNF 5009)	60g	3.5	0.3	3.8	19%	1.75	10%
Medium Ground Pork, Raw (CNF 6121)	100g	8.0	0.2	8.2	41%	0.75	4%
Medium Ground Pork, Cooked (CNF 6122)	60g	5.0	0.1	5.1	26%	0.75	4%
Lean Ground Pork, Raw (CNF 6119)	100g	6.0	0.2	6.2	31%	1.0	6%
Lean Ground Pork, Cooked (CNF 6120)	60g	3.5	0.1	3.6	18%	0.75	4%
Extra Lean Ground Chicken, Raw (Product Data*)	100g	2.0	0.0	2.0	10%	0.75	4%
Lean Ground Chicken, Raw (CNF 918)	100g	2.5	0.1	2.6	13%	0.75	4%
Lean Ground Chicken, Cooked (CNF 919)	60g	2.0	0.0	2.0	10%	0.50	3%
Ground Turkey, All Classes, Raw (CNF 815)	100g	2.0	0.1	2.1	11%	1.0	6%

Ground Turkey, All Classes, Cooked (CNF 816)	60g	1.5	0.0	1.5	8%	0.75	4%
--	-----	-----	-----	-----	----	------	----

* Nutrition information is from Maple Leaf Extra Lean Ground Chicken NfT.

Note: data in the above chart is rounded per Canadian nutrition labelling regulations.

7. FOP labelling may lead to consumer confusion and have unintended consequences.

FOP labelling is not new to Canadians and a variety of symbols exist in the marketplace today.⁶ Some research suggests that FOP programs can be confusing to consumers and lead to inconsistencies in the perception of the healthfulness of foods.²⁹ For example, when testing two systems side by side, one system resulted in lower perceptions of the healthiness of a group of foods, while the other system resulted in higher perceptions of healthiness for the same products.

In the proposed FOP program, it appears based on our calculations that certain ultra-processed, poor-quality foods (such as some ready-to-eat cookies, chips, diet sodas) would not exceed the nutrient thresholds required to trigger a FOP symbol. In addition, based on the proposed exemptions vegetable oils, table sugar and salt will not have to carry a FOP symbol, while nutrient-dense foods like ground beef and ground pork would have to. Unless the system will have methods to compensate for this incongruence, this definitely appears to contradict the purpose of Health Canada's FOP labelling program, Codex considerations, and the World Heart Federation FOP labelling policy recommendations as previously outlined.

CONCLUSION

Canada's Food Guide plate and dietary guidance promotes whole and minimally processed foods while encouraging Canadians to avoid highly processed foods. Ground beef and ground pork are single ingredient, minimally processed foods that contribute many essential nutrients, like iron, zinc and vitamin B₁₂ to the Protein Foods portion of the plate. Like other nutrient-dense whole foods, including unflavoured milk, and eggs, ground beef and ground pork should be exempt from mandatory front-of-package nutrition labelling.

REFERENCES

1. Government of Canada. 2018. [Regulations amending certain regulations made under the Food and Drugs Act \(nutrition symbols, other labelling provisions, partially hydrogenated oils and vitamin D\)](#).
2. Health Canada. 2016. [Healthy eating strategy](#).
3. Health Canada. 2015. [Evidence review for dietary guidance technical report](#).
4. Health Canada. 2018. [Summary of proposed amendments published in Canada Gazette, Part I: nutrition symbols, other labelling provisions, partially hydrogenated oils and vitamin D](#).

5. Codex. 2019. [Discussion paper on criteria for the definition of 'high in' nutritional descriptors for fats, sugars and sodium](#),
6. World Heart Federation. [Policy brief: Front-of-pack labelling](#). Global Heart 2020;15(5):70.
7. Health Canada. 2019. [Canada's food guide](#).
8. Health Canada. 2015. Canadian Nutrient File. Food Codes for raw Ground Beef 4496 (extra lean), 2683 (lean), 2690 (medium), 2786 (regular) and raw Ground Pork 6119 (lean).
9. Ahmed M et al. [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.
10. Teichman J et al. [Suboptimal iron deficiency screening in pregnancy and the impact of socioeconomic status in a high-resource setting](#). Blood Adv 2021;5(22):4666-4673.
11. Health Canada. 2012. [Nutrition for healthy term infants: Recommendations from birth to six months](#). A joint statement of Health Canada, Canadian Paediatric Society, Dietitians of Canada and Breastfeeding Committee for Canada.
12. Health Canada. 2014. [Nutrition for healthy term infants: Recommendations from six to 24 months](#). A joint statement of Health Canada, Canadian Paediatric Society, Dietitians of Canada and Breastfeeding Committee for Canada.
13. Kappeler R et al. [Meat consumption and diet quality and mortality in NHANES III](#). Eur J Clin Nutr, 2013; 67(6):598-606.
14. Heart & Stroke Foundation. 2015. [Position statement: Saturated fat heart disease and stroke](#).
15. Polsky JY et al. 2020. [Consumption of ultra-processed foods in Canada](#). Statistics Canada health reports.
16. Moubarac JC. 2017. [Ultra-processed foods in Canada: consumption, impact on diet quality and policy implications](#). Montréal: TRANSNUT, University of Montreal.
17. Moubarac et al. [Processed and ultra-processed food products: Consumption trends in Canada from 1938 to 2011](#). Canadian Journal of Dietetic Practice and Research 2014;75:15–21.
18. Statistics Canada. 2018. Customized analysis of 2015 Canadian Community Health Survey - Nutrition data.
19. Statistics Canada. 2019. [Food availability](#).
20. Slater J et al. [The growing Canadian energy gap: more the can than the couch?](#) Public Health Nutr 2009;12(11):2216-2224.
21. Harrison S et al. [Consumption and sources of saturated fatty acids according to the 2019 Canada Food Guide: Data from the 2015 Canadian Community Health Survey](#). Nutrients 2019;11(9):1964.
22. World Health Organization. 2018. [Draft guidelines on saturated fatty acid and trans-tatty acid intake for adults and children](#). World Health Organization; Geneva, Switzerland. p. 103.
23. AC Nielsen data. Feb 2020. Includes all fresh ground beef sales reports at retail excluding burgers and patties and Costco sales. (Note: Costco only sells Lean Ground Beef).
24. Institute of Medicine. 2001. [Dietary Reference Intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc](#). Washington, DC: The National Academies Press.
25. Health Canada. 2015. Canadian Nutrient File. Food Codes for Ground Beef 2683 (lean) and 4996 (extra lean), Ground Chicken 918, Ground Turkey 815.
26. Health Canada. 2021. [Annual report: Food and nutrition highlights 2020](#).
27. van Vilet S et al. [A metabolomics comparison of plant-based meat and grass-fed meat indicates large nutritional differences despite comparable Nutrition Facts panels](#). Sci Rep 2021; 11(1):13828.

28. Engelmann M et al. [The influence of meat on nonheme iron absorption in infants.](#) Pediatric Research 1998;43(6):768-773.
29. Savoie N et al. [Consumer perceptions of front-of-package labelling systems and healthiness of foods.](#) Can J Public Health 2013;104(5):e359-e363.