

WORRIED ABOUT NUTRITION?

BEEF'S ROLE IN A HEALTHY DIET

The Importance of Protein

Proteins are part of every cell in your body, necessary to build and repair muscle. They are also an important part of the immune and circulatory systems, organ function, bones, hormones and enzymes. When digested, proteins are broken down into amino acids.

Our bodies only make 11 of the 20 amino acids critical to human health. The others we must get from our diet. Protein from animal sources, such as beef, contains all of the essential amino acids we need in our diet. Most plant protein sources have to be mixed and matched in order to ensure adequate essential amino acid intake.

How does beef compare?

ONE SERVING (75 g) OF COOKED BEEF PROVIDES ABOUT 26 g OF PROTEIN.¹



BEEF

1 SERVING

• a suggested serving size is about the size of a deck of cards.

• 26 g protein
• 184 calories



TOFU

1 3/4 SERVINGS

• a suggested serving size is about the size of a tennis ball.

• 26 g protein
• 240 calories



BLACK BEANS

2 1/3 SERVINGS

• a suggested serving size is about the size of a baseball.

• 26 g protein
• 391 calories



ALMONDS

3 2/5 SERVINGS

• a suggested serving size is about the size of a golfball.

• 26 g protein
• 715 calories

The Importance of Iron

Iron is a mineral that carries oxygen in the blood. Beef contains "heme" iron, which is more easily absorbed than the "non-heme" iron found in plants.

Low iron can lead to anemia, fatigue, weakness, shortness of breath, irregular heartbeat, pregnancy complications and delayed growth and development in children.

Iron is particularly important for babies, young children and menstruating women.

16-19% of Canadian adult women between ages 19-50 consume inadequate amounts of iron.⁷



How does beef compare?

ONE SERVING (75 g) OF COOKED BEEF PROVIDES 2.5 mg OF IRON.¹



BEEF

1 SERVING

• a suggested serving size is about the size of a deck of cards.

• 2.5 mg iron
• 184 calories



RAW SPINACH

5 1/4 SERVINGS

• a suggested serving size is about the size of a baseball.

• 2.5 mg iron
• 37 calories



PORK LOIN

4 SERVINGS

• a suggested serving size is about the size of a computer mouse.

• 2.5 mg iron
• 563 calories



SALMON FILLET

6.5 SERVINGS

• a suggested serving size is about the size of a hockey puck.

• 2.5 mg iron
• 836 calories

The Importance of B12

Vitamin B₁₂ helps to regulate the nervous system, and also plays a role in growth and red blood cell formation. It is found only in meat and dairy products, unless a food has been specifically fortified with vitamin B₁₂.

A vitamin B₁₂ deficiency can lead to neurological effects like tingling in the extremities, poor reflexes and muscle function, difficulties with movement, and in the long-term, dementia, paranoia, or depression. If left untreated, some of these effects can be permanent.

The Importance of Zinc

The body uses zinc to fight off infections and produce new cells. It is also required to produce testosterone and for healthy fetal development.

Inadequate zinc intake can cause wounds that won't heal, a loss of appetite, decreased sense of smell and taste, undesired weight loss, and delayed growth in children.

How does beef compare?

ONE SERVING (75 g) OF COOKED BEEF PROVIDES ABOUT 1.8 MICROGRAMS (µg) OF VITAMIN B₁₂.¹



BEEF | 1 SERVING

• a suggested serving size is about the size of a deck of cards.

• 1.8 µg B₁₂ • 184 calories



SHRIMP | 1.5 SERVINGS

• a suggested serving size is about 15 medium shrimp.

• 1.8 µg B₁₂ • 131 calories



CHICKEN BREAST | 7 SERVINGS

• a suggested serving size is about the size of a hockey puck.

• 1.8 µg B₁₂ • 873 calories



PORK LOIN | 3 4/5 SERVINGS

• a suggested serving size is about the size of a computer mouse.

• 1.8 µg B₁₂ • 515 calories

10-35% of Canadians aged 19 and older have inadequate intake of vitamin B₁₂.²

How does beef compare?

ONE SERVING (75 g) OF COOKED BEEF PROVIDES 6.5 mg OF ZINC.¹



BEEF | 1 SERVING

• a suggested serving size is about the size of a deck of cards.

• 6.5 mg zinc • 184 calories



SALMON FILLET | 17 SERVINGS

• a suggested serving size is about the size of a hockey puck.

• 6.5 mg zinc • 2172 calories



CHICKEN BREAST | 8 2/3 SERVINGS

• a suggested serving size is about the size of a computer mouse.

• 6.5 mg zinc • 1075 calories



EGGS | 5 3/5 SERVINGS

• a suggested serving size is two large eggs.

• 6.5 mg zinc • 790 calories

10-35% of Canadians aged 19 and older, and **41%** of Canadian men over the age of 70, have inadequate intakes of zinc.²

A SERVING (75 g) OF COOKED BEEF PROVIDES^{1,3}



ABOUT 26 g OF PROTEIN
= About **50%** of a healthy adult's recommended daily protein intake.

2.5 mg OF IRON
= About **30%** of a healthy male's and **15%** of a healthy female's recommended daily iron intake.

ABOUT 1.8 µg OF VITAMIN B₁₂
= **75%** of a healthy adult's recommended daily intake of B₁₂

6.5 mg OF ZINC
= **60-80%** of a healthy adult's recommended daily intake of zinc.



For references and more information about raising beef, please visit the consumer section of albertabeef.org



BEEF IS A COST-EFFECTIVE, NUTRIENT-DENSE FOOD

FOR ABOUT 22 g OF PROTEIN^{1,10}



1 serving of pan-fried lean ground beef
 (75 g) = \$0.83



About 1^{1/2} servings of tofu
 (220 g) = \$0.96



About 2 servings of black beans
 (245 g) = \$1.20



About 2^{4/5} servings of almonds
 (103 g) = \$2.14

FOR ABOUT 2.1 mg OF IRON^{1,10}



1 serving of pan-fried lean ground beef
 (75 g) = \$0.83



About 4^{2/5} servings of raw spinach
 (141 g) = \$2.16



About 2^{1/3} servings of pan-fried lean ground pork
 (173 g) = \$1.63



About 3 servings of cooked lean ground chicken
 (227 g) = \$3.50

FOR ABOUT 2.4 µg OF B12^{1,10}



1 serving of cooked top sirloin steak
 (75 g) = \$2.48



About 2 servings of shrimp
 (143 g) = \$5.06



About 9 servings of chicken breast
 (683 g) = \$13.55



About 5 servings of pork loin
 (370 g) = \$4.08

Let's talk beef, cancer and heart disease

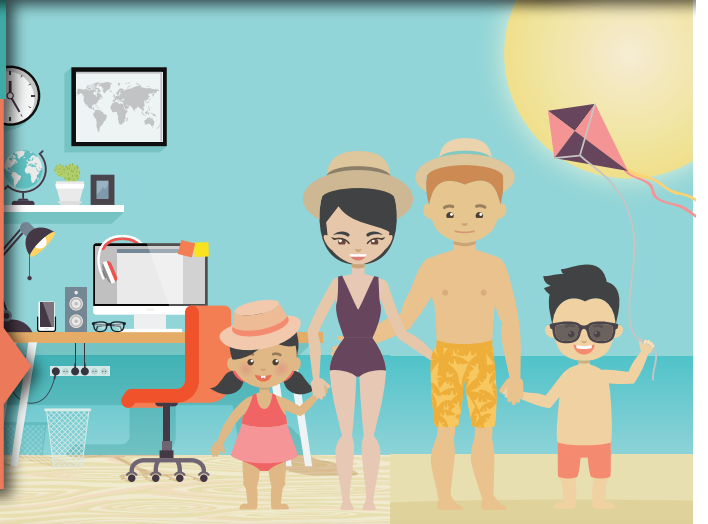
In 2015, The International Agency for Research on Cancer (IARC) classified fresh red meat as probably carcinogenic to humans - Group 2A.⁴ Out of over 1,000 items, IARC has only one, a type of nylon, classified as probably not carcinogenic to humans.⁵

HAZARD DOES NOT EQUAL RISK

How can that be?

IARC EVALUATES HAZARD, NOT RISK. Think of it this way: the sun's UV rays can be hazardous. Your risk of sun exposure inside your house is small. Your risk of sun exposure at the beach is much greater. The hazard of the sun's UV rays doesn't change; your exposure to the sun's UV rays does. IARC does not quantify how your overall dietary patterns, lifestyle and genetics may affect your risk of developing cancer.

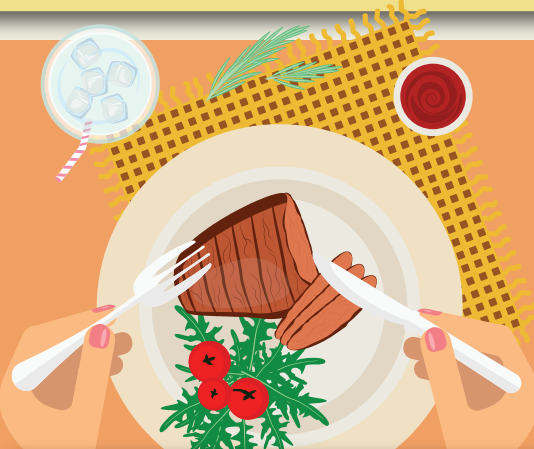
Of course, moderate sun exposure, just like including beef as part of a balanced diet, has health benefits as well.



ABOUT HALF THE FAT IN BEEF IS THE SAME TYPE OF MONOUNSATURATED FAT FOUND IN OLIVE OIL, WHILE OVER 85% OF THE FAT FOUND IN COCONUT OIL IS SATURATED FAT!

A large study in Europe⁶ (almost 500,000 people) found no association between unprocessed red meat and any cause of death, including heart disease or cancer, while a recent meta-analysis concluded that red meat did not significantly increase cardiovascular risk when consumed in recommended amounts.⁷

The term "**lean**" is defined by the Canadian Food Inspection Agency (CFIA) as a **maximum of 17% fat**. This means the maximum fat content is the same for lean ground beef, poultry and pork.¹¹

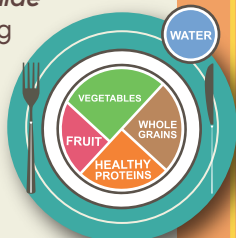


HOW MUCH RED MEAT DO CANADIANS BUY?

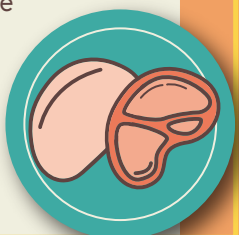
In 2016, Canadians purchased about 98 g per day of red meat compared to almost 152 g per day in 1980.⁸

Further, a 2017 study suggested that the removal of animals from the food production system would result in diets that were unable to meet the nutritional needs of the U.S. population without supplements.⁹

Eating Well with Canada's Food Guide recommends eating a variety of foods from all four food groups, including healthy proteins like lean meat.



75 g of trimmed sirloin steak has almost the same amount of fat as the same amount of boneless, skinless chicken breast - only 1 gram more.¹



BEEF IS PART OF A HEALTHY, BALANCED DIET.



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