

# Animal Protein in Healthy Diets, Making Every Bite Count

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Lean meats, poultry, fish, eggs, dairy products, beans, lentils, nuts and seeds are all important to healthy eating according to Canada's food guide. These protein-rich foods each have unique nutritional characteristics. During a recent University of Manitoba Special Seminar organized by the National Centre for Livestock and the Environment and the Department of Animal Science, Dr. Teresa Davis used sound scientific data to support a discussion on the nutritional importance of animal protein in the diet. Dr. Davis is a professor of pediatrics with the United States Department of Agriculture/Agriculture Research Service, Children's Nutritional Research Center at Baylor College of Medicine in Houston, Texas.

Proteins are the building blocks of life and are involved in almost every function inside our bodies including building muscles, contributing to bone health and more. Proteins are made up of two types of amino acids, non-essential and essential. Our bodies can produce the non-essential amino acids but we cannot produce any of the essential amino acids. As a result, we need to find these in our diet.

## All proteins are not created equal

According to Davis, proteins derived from animal products are also known as complete high-quality proteins and contain all the essential amino acids. Most plant proteins lack one or more of the essential amino acids. As a bonus, animal sourced foods are packed with an abundance of nutrients including iron, zinc, vitamin B12, selenium, phosphorous and others. According to the Academy of Nutrition and Dietetics, the body absorbs 2 to 3 times more iron from animal than from plant sources. Increasing iron in the diet helps to alleviate anemia and other health conditions related to iron deficiency, specifically in women, infants and young children.

## Healthy body weight

Making sure that we fuel our bodies with the correct amounts of calories can be a challenge. In developed countries like Canada and the US, excess caloric intake is associated with obesity and poor health. Approximately one third of adults and children in the United States are overweight or obese. Eighty percent of the obese children will remain obese as adults and will be at a greater risk for developing cardiovascular disease, diabetes, osteoporosis and cancer; Canada is not far behind this trend. Davis says that consumption of lean meat is associated with fewer calories in the diet and is part of the solution to battling obesity. Three ounces of lean beef provides half of the daily requirement for protein but only 10% of calories and fat.



Exercise is another tool used to battle obesity. Resistance exercise, also called strength training, promotes muscle protein synthesis and muscle mass. Davis says that eating animal protein enhances the positive impact that resistance exercise has on building muscle.

## **Important at any age**

In infants and older children, consumption of meat and dairy products promotes growth. Davis points out that increased consumption of cow's milk by kids compared to milk substitutes improves body protein balance while promoting lean muscle tissue mass and greater height in young children.

Currently 20% of our population is 65 and over. By 2050 this figure will grow to 25%. As we age, our bodies require more protein and extra nutritional assistance to stay strong and healthy. According to Davis, consumption of animal protein foods has a positive effect on preserving skeletal and muscle mass while improving function, performance and independence in older adults.

Malnutrition is a major health crisis worldwide with 45% of child deaths resulting from poor nutrition. Davis highlighted research suggesting that just small amounts of protein sourced from animal products are superior to plant-sourced protein foods in helping to fight the effects of malnutrition.

## **Is there a negative side to the story of animal proteins?**

Davis explores an alternative view on animal-based proteins. One message in the media is that increased consumption of meat is associated with a 14% increased risk of colorectal cancer.

Causal effects in studies on chronic disease are difficult to measure, primarily because numerous dietary and lifestyle choices are also contributing to the cause of the chronic illness. To put this figure into perspective, consider a greater than 1000% increased risk for lung cancer from smoking cigarettes. Davis states that as a result of many research studies and approximately 1.5 million participants, it was concluded that there is a low to very low certainty of evidence for adverse health outcomes of consuming red and processed meats.

During the seminar and question period Davis provided the narrative, heavily reinforced by scientific evidence, that supported the nutritional benefits of animal sourced foods. She emphasized that it is important to share information and scientific data with public and governments to ensure there is no misinformation regarding the key role of animal sourced foods in a healthy diet.

At the end of the day, both US and Canadian dietary guidelines agree on consuming nutrient dense foods to maintain a healthy diet, and animal-sourced foods are truly nutrient dense. We as consumers in developed countries have the privilege to choose the foods we eat. Let's think about nutritional value, scientific evidence, and make every bite count.