

PROTEIN REQUIREMENTS

Healthy diet includes a variety of plant proteins

TEAM RESOURCES



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Daily intake of meat or plant-based protein is ideal for optimum health. A diet focused mainly on meat-based protein may be lower in dietary fibre and the many nutrients found only in vegetables and grains and higher in fat.

A plant-based protein regime will have more variety in nutrients, will have a good source of dietary fibre and may be lower in fat.

Proteins are a macronutrient made up of amino acids that are essential to the well-being of a healthy body and necessary for almost all cellular activity.

Some act as enzymes and are vital to metabolism. Others have structural or mechanical functions, such as the proteins that maintain cell shape. Proteins are important in immune responses and controlling inflammation.

The body can make some of the 22 amino acids occurring in foods but there are eight it cannot make, and children cannot make 10 of them. They are called the essential amino acids and must come from the foods we eat.

Meat is called a complete protein



Good sources of plant protein include chickpeas, lentils, nuts and beans. | GETTY PHOTO

because it contains all of the essential amino acids, but eating a wide variety of plant products can also supply the essential amino acids. No one plant contains all of the essential amino acids so we need to eat a wide variety.

The old school of thought recommended eating complementary plant products such as beans with rice, so that all essential amino acids were present at each meal. This is no longer the case.

Scientists now know that through digestion the body will break down proteins and store amino acids from one meal to the next over the

day but not longer.

It is a myth that animal protein is superior to plant protein but the structure of amino acids in both is identical.

Poor quality is confused with lower quantity. Plant products are lower in protein, but the quality is equal.

Meat is a highly concentrated protein foods but has fewer of the other nutrients the body needs. We may be lacking in other nutrients by consuming only meat for our protein needs.

I expect the new Canada Food Guide will place a greater emphasis

on proteins from plant sources.

Balanced, healthy diets are more easily achieved when there is only a moderate emphasis on meat-based protein with good fats, unrefined carbohydrates, adequate dietary fibre and a variety of nutrients.

Good sources of plant protein include lentils, chickpeas, black beans, peanuts, almonds and cashews.

Even one medium sized potato has four grams of protein. One cup of cooked wild rice has 6.5 grams, and 1/4 cup of dry steel cut oatmeal has five grams.

Health Canada recommends 0.8 to 1.3 grams of protein per kilogram of body weight. This equates to 10 to 15 percent of our total caloric intake to be from protein. Needs are based on age, gender and activity level.

There is no recommendation in the Canada Health Dietary Reference Intake for adults older than 50 but recent research has found that a higher protein intake is beneficial to aging adults.

Age-associated conditions such as sarcopenia (the gradual loss of muscle mass with aging), osteoporosis and immune system impairments are hampered by a lack of protein. New studies are showing that older adults need more dietary protein than younger adults to support good health and recovery from illness, changes in metabolism and offset inflammation.

One reason is that the protein is not as readily available to the body

due to changes in digestion.

New research recommends that older adults have one to 1.2 grams of protein per kilogram of weight every day. Older adults with acute or chronic diseases need even more protein.

Only those with severe kidney disease would be an exception to this recommendation, according to the Prot-Age Study Group founded by the European Union Geriatric Medicine Society.

Protein is also important in the prevention or treatment of obesity. Protein digests more slowly than carbohydrates and therefore keeps hunger pangs away longer. This is an important part of a weight control regime.

One gram of protein has the same calories as one gram of carbohydrates and half the calories of a gram of fat.

Although solid food is generally more satisfying, even high protein drinks have shown a positive effect in keeping away hunger. Studies have shown that more protein in the diet has helped with greater weight loss, fat mass loss and lowered lean mass loss.

Lowered blood sugar levels, blood pressure and waist circumference has resulted from a higher protein diet, reports the *American Journal of Clinical Nutrition*.

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SAVING MONEY

How to lessen the sting of airline baggage fees

TALES FROM THE ROAD



ARLENE & ROBIN KARPAN

Few things get air travellers more irritated than baggage fees and constantly changing rules. Yet airlines seem quite content to let customers stew about fees because they have become so lucrative.

Costs can add up. While there are variations, it's usually around \$25 each way for flights in Canada, the United States and other destinations.

A family of four, with each person having one checked bag, ends up forking over an extra \$200 plus taxes.

Want to break up your journey with a few days stopover along the way? You'll pay separate fees for each leg of the trip.

How airlines charge for checked bags can be confusing. For travel within Canada or to the U.S., it's almost universal that airlines charge for bags.

Travelling farther afield gets complicated, and rules are constantly in flux. When we went to Mexico City earlier this year, Air Canada allowed one checked bag free, but now they charge.

The airline charges for baggage for most, though not all, Caribbean destinations. However, if you're on an Air Canada Vacations package, you may be allowed a free bag.

For Europe, Air Canada generally allows the first checked bag free, yet for parts of South America, Asia or Africa, it's two free checked bags.

Other airlines have their own spin on the rules, though most are equally convoluted. At least with Air Canada, it's reasonably easy to look up the rules on its website. You can enter your departure point and destination and see the baggage allowance and cost.

On an international ticket using different airlines, things can get murky. As a general rule, for flights originating or ending in Canada or the U.S., it is usually the first airline you fly with that determines the baggage rules.

For much of the world, baggage rules are set by the most significant carrier for multi-airline tickets. It's not always straightforward, so for complex itineraries, it's best to get clarity from an airline or travel agent.

Travellers can sometimes avoid or lessen the sting of baggage fees using co-branded credit cards. The most useful one in Canada is the WestJet Mastercard, issued by RBC, which allows one free checked bag for the card holder and up to eight other people travelling on the same reservation.

The card has a yearly fee (\$119 as of Nov. 1), so you have to balance

this against the saving from not paying baggage fees.

The card also comes with 250 introductory WestJet dollars, so it is almost always worth getting if you plan to fly WestJet.

You also get a free first bag with certain Aeroplan credit cards, such as those issued by CIBC and TD Canada Trust. However, they are much more restrictive.

The baggage fee is waived only if you fly on Air Canada, and in some cases, only if you're flying on an Aeroplan ticket.

In addition, it only applies to the card holder, and not to anyone else on the same ticket.

For a couple travelling together, it is advantageous for each to book separate tickets using their own Aeroplan accounts, and for each to pay with their own Aeroplan-

Some co-branded credit cards allow a free checked bag

branded credit card.

Some U.S.-based airlines have co-branded credit cards that offer a free checked bag, but none are available in Canada.

With many airlines, the baggage fee is waived if you buy a more expensive fare or if you have status with the airline's frequent flyer program. The latter is usually only available to those who fly a significant amount with an airline and who don't always book

the cheapest fares.

When you can't avoid a baggage fee, another strategy is for a couple to check one large bag (assuming of course that you can stay within the size and weight limit), rather than each person checking a smaller bag.

So-called no-frills or low-cost airlines usually have different rules again.

On Flair Airlines, which flies to a few western Canadian cities, the only free luggage is one small personal carry-on that fits under your seat and weighs less than 10 kilograms.

Even a regular carry-on bag that fits in the overhead compartment triggers a fee. Interestingly, it costs less for a 23 kg checked bag than for a 10 kg carry-on bag.

For some airlines, it may cost slightly less if you pay for your bags in advance online rather than at the airport. For Flair, the difference in paying on its website or at the airport is significant.

Baggage rules and fees will likely continue to change. Some critics argue that they are purposely complex, so that it's difficult for travellers to know upfront what the final tab will be.

When we're looking for the best airfare deal, it's important to research the baggage rules and ask questions when things aren't clear, so that we don't end up with nasty and expensive surprises.

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