To live longer, eat plants!

Richard Béliveau

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A recent study has confirmed, in remarkable fashion, that the regular consumption of certain fruits and vegetables specifically diminishes the risks of cardiovascular diseases and of cancer, and improves life expectancy.

All of the organizations dedicated to the **prevention** of chronic diseases recommend the consumption of a minimum of five portions (400 g) of fruits and vegetables each day in order to reduce the incidence and mortality associated with these diseases, whether they are cardiovascular diseases, diabetes or cancer. Unfortunately, the large majority of inhabitants of industrialized countries follow a diet that markedly undershoots these recommendations, even without taking into account that the types of vegetables they consume are not particularly diversified and do not let them take advantage of the benefits associated with these foods.

NOT ALL EQUAL

For the prevention of chronic diseases, it is not sufficient to only increase the quantity of vegetables consumed in our diet, as we must also choose those which exhibit the strongest preventive actions.

This last point is very important, because we often erroneously consider fruits and vegetables as a homogeneous class of foods, whose positive actions on the human body are limited to their content of vitamins, minerals and fibre.

This reductionist vision is completely out of date because scientific research of the past few years has revealed that plants are living organisms of great complexity, producing a battery of highly reactive phytochemical molecules which influence several processes involved in the development of diseases.

These molecules are essentially produced by the plants in response to attacks from bacteria or insects, or are essential in adaptation to variations in their environment, e.g. aridity, flooding, cold or heat.

Driven purely by the challenges of evolution, out of the tens of billions of molecules produced by these plants there are several which affect the enzymes involved in the development of human diseases such as cancer or cardiovascular diseases.

These molecules are only found in a few plants and, for this reason, we must show some discrimination in our choice of vegetables in order to prevent these diseases.

PREVENTING DEATH

This concept is well illustrated by the results of a meta-analysis of results obtained by 95 prospective studies performed in recent years on the association between the consumption of fruits and vegetables and the risks of chronic diseases and premature death[1].

The scientists first confirmed that people who regularly eat plant-based foods are at less risk of developing cardiovascular diseases or cancer.

This protection depends directly on the quantity consumed, with a maximal preventive effect observed at 10 portions (800 g) of fruits and vegetables. In other words, 5 portions is good but 10 is even better!

More precisely, the people who consume 10 portions daily have 24% less risk of developing coronary disease (such as a heart attack), 33% less risk for stroke and 13% less risk of developing cancer.

The impact of these protective effects is considerable, since they translate into a 31% lower risk of premature death.

Globally, the authors estimate that nearly eight million premature deaths could be avoided if the world population consumed 10 portions of fruit and vegetables daily.

Not all plant products are associated with a reduction in risk. By separately analyzing the different classes of fruits and vegetables, the authors observed that the risk of cardiovascular disease was particularly diminished by certain fruits (apples, pears, citrus fruits) and vegetables (green leafy legumes, cruciferous vegetables) whereas the reduced risk for cancers was particularly diminished in people who consumed the most cruciferous vegetables and yellow-green vegetables (carrots, celery, beans, spinach).

In other words, it is primarily the consumption of plant-based foods which contain the greatest quantities of phytochemical molecules which can really influence the risk of developing these diseases.

These results illustrate again just how important it is to regularly consume fruits and vegetables in order to reduce the risk of chronic diseases and to increase the chances of a long life in good health.

(1) Aune, D et al. Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality – a systematic review and dose-response meta-analysis of prospective studies. Int. J. Epidemiol. Published online Feb. 23, 2017.

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