

The growing importance of fibre for health

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Translated from Le Journal de Montréal, March 18th, 2019

According to a recent combined analysis of research studies performed over the past 40 years on a link between the consumption of fibre and the development of chronic diseases, it has been determined that a minimum daily intake of 30 g, which is double the current average intake, is optimal for health.

When one considers problems in the modern diet, the first words that come to mind are “too much”: too much sugar, too much fat, too much red meat, too much processed food etc. These excesses are quite real and there is no doubt that they contribute to diseases originating from the diet, particularly the development of obesity.

However, it must not be forgotten that too much of one thing strongly implies a deficiency in something else, and in the case of modern diets this overconsumption of calories generally occurs to the detriment of an adequate intake of dietary fibre.

This is particularly true for ultra-transformed processed foods which are designed to be easily and rapidly consumed (often without even the need for utensils!) and are consequently essentially lacking in molecules which present any mechanical resistance to chewing, such as dietary fibre; this is “industrial soft eating.”

This absence has several consequences for health because these fibres are fermented within the colon by the intestinal microbiome to generate beneficial products such as short-chain fatty acids, noted for their anti-inflammatory properties.

In parallel, the fermentation of fibre generates lactic acid which slightly acidifies the intestine, slowing the proliferation of some pathogenic microorganisms which require more clement conditions in order to grow, and thus reducing inflammation at the same time.

Overall, the regular consumption of fibre permits the establishment of a diversified microbiome, composed principally of beneficial bacteria which create an anti-inflammatory environment refractory to the development of an ensemble of chronic diseases.

ALL-ROUND PROTECTION

A study directed by the World Health Organization, and recently published in the prestigious journal *Lancet*, illustrates the great importance of increasing the intake of dietary fibre¹. By combining the results of studies performed in recent years (185 observational



studies and 58 randomized studies, which was equivalent to 135 million people per year), the authors observed that people who consume more fibre are 15 to 30% less likely to develop one of a host of chronic diseases, including heart attacks, strokes, type 2 diabetes and colorectal cancer, compared to those who eat little fibre. Those who consume fibre are also less fat and have arterial pressure and blood levels of cholesterol that are closer to normal.

The analysis showed that these protective effects can be obtained by the consumption of 25 to 29 grams of fibre per day, but the data tended to show that even greater consumption (>30 g per day) could provide additional benefits because a diminution of 15% in the risk of premature death was observed in people who consumed 35 to 49 g of fibre per day. Because the daily intake of fibre by Canadians is only 14 g per day, these results strongly suggest that this deficiency could play an important role in the high incidence of cardiovascular diseases and of colorectal cancer which affects our society.

To increase fibre intake, no miracle is required: we must simply consume more plants and whole grain cereals. And there is no lack of choices! Many grain products (breads, bagels, tortillas, pasta) are available in whole grain versions and can surely contribute to increasing the intake of fibre if they replace those made from refined flour. The same is true for legumes such as lentils or beans as well as for many vegetables (broccoli, Brussels sprouts, asparagus, eggplant and peas) and fruits (berries, figs, mango and avocado). We must, however, beware of both processed foods enriched with fibre as well as of fibre supplements: these foods generally contain a single type of fibre and can never compete with the diversity and complexity of soluble and insoluble dietary fibre naturally present in plants, absolutely essential to the establishment of a balanced microbiome.

⁽¹⁾ Reynolds A et al. Carbohydrate quality and human health: a series of systematic reviews and meta-analyses. *Lancet* 2019; 393: 434-445.