Ultra-processed foods increase the risk of cancer

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Two recent studies have established a link between the elevated consumption of processed foods (which are loaded with fat, sugar and salt) and an increase in the risk for many cancers.

About half of the calories currently consumed by the population come from highly transformed foods. These foods are purely industrial creations, originating from a panoply of the least expensive ingredients available (fat, sugar, salt and diverse additives) and methodically devised to be attractive, easy to obtain and to have a shelf life as long as possible. The biggest change caused by these ultra-processed, industrial products has, however, been to increase the amount of energy contained in our diet to unprecedented levels, several times higher than in the foods produced by nature. A simple sweet, swallowed in a couple of seconds at most, is a virtual energy bomb which can contain more calories than a complete meal while a simple fast food trio quickly eaten on the go (sometimes even in the car) can itself provide nearly all the caloric needs for an entire day.

This high caloric density in foods, combined with their nutritional paucity, is responsible for one of the great paradoxes of modern nutrition: it is now possible to overeat to the point of becoming obese while simultaneously having a complete lack of many essential nutrients (vitamins, fibres and minerals) as well as of protective phytochemical compounds (e.g. polyphenols). These foods thus contain empty calories, capable of satisfying our natural inclination towards fat, sugar and salt but bearing nothing useful for health, notably in terms of preventing chronic diseases.

The danger in this type of food is clearly seen in the results of two studies performed in Europe and in the United States. In the first of these, the researchers examined the eating habits of 471,495 adults living in ten European countries and assessed the quality of their diets by using the Nutriscore system[1]. This system allocates a letter between A and E to each processed food (A being the best quality and E being the worst) by taking into account both the levels of good nutrients (fibres, proteins, fruits and vegetables) as well as the content of nutrients which should be limited (saturated fats, sugars and salt).

By using this score, the researchers were able to determine that people who consumed the most foods of poor nutritional quality had an elevated risk of different cancers, particularly those of the stomach (25% increase), upper digestive tract (21%), liver (17%) and colon (11%). Overall, the total risk of cancer is increased by 7% in people who consume the largest quantities of highly processed food of poor quality, which shows the extent to which these foods can be harmful.

CANCERS CAUSED BY EXCESS WEIGHT

In the other study, which followed 15 years in the lives of 92,925 menopausal women aged 50 to 79, the researchers examined the link between the energetic density of food and the risk of developing one of 12 cancers whose risk of incidence is increased by obesity (including cancers of the breast, colon, rectum, uterus, kidney, bile duct, esophagus and pancreas). They observed that greater caloric density was associated with an increased risk of obesity, with a BMI of 29 for those whose diet was richest in foods of high caloric density, and that the excess weight was associated with a parallel increase of 10% in the risk of developing one of the other cancers linked to obesity[2].

DEFENSIVE APPROACH

Cooking meals which begin with natural ingredients remains the best way to reduce the risks associated with the overconsumption of ultra-processed industrial foods. Must we completely eliminate these foods? Certainly not! It is not because a person eats fast food three times each year that he/she becomes obese or sick, but rather because they manage to consume it three times each week! We must simply adopt a defensive approach given the ubiquitous nature of these industrial products in our environment and to consider these foods for what they should be: an occasional treat.

(1) Deschasaux M et al. Nutritional quality of food as represented by the FSAm-NPS nutrient profiling system underlying the Nutri-Score label and cancer risk in Europe: Results from the EPIC prospective cohort study. PLoS Med. 2018; 15: e1002651.

(2) Thomson CA et al. Association between dietary energy density and obesity-associated cancer: results from the Women's Health Initiative. J. Acad. Nutr. Diet. 2018; 118: 617-626.

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