

Colon cancer: the risks of being overweight

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Excess body fat is associated with a large increase in the risk factor for at least seven forms of cancer, including colon cancer.

A recent study has shown that this increased risk is also observed in overweight people whose metabolism is normal.



Individuals suffering from obesity have a 45% higher risk of having precancerous lesions in the colon than people of normal weight.

TAKING BIG RISKS

Over the past few decades, the average body weight in the population has increased in a phenomenal way, with two thirds of Canadians actually considered overweight, i.e. with a body mass index (BMI) greater than 25. Recalling that the BMI can be easily calculated by dividing the weight (in kg) by the squared height (in m²), then if the BMI is between 25 and 29 the person is overweight, whereas she/he is obese if the index is 30 or more.

There is no longer any doubt that this increase in the number of overweight people is responsible for a large proportion of the chronic diseases which plague our society.

Increased fat in the body tissues is an abnormal condition which perturbs the homeostatic equilibrium of the organism and favours the development of several diseases. Type II diabetes,

cardiovascular disease as well as several types of cancer are the diseases which are more likely to affect overweight people and which drastically diminish their quality of life and their life expectancy.

THE MYTH OF BEING OVERWEIGHT AND IN GOOD HEALTH

Surprisingly, scientists have observed that a small proportion of obese people do not show any of the characteristic disturbances in metabolism due to their extra weight. These people have normal blood glucose and insulin levels, normal blood pressure and the blood lipid profiles are also normal.

Consequently, despite their obesity, they do not seem to be at risk of being affected by Type II diabetes or heart disease more than individuals of normal weight. But are these individuals also protected against cancer?

To examine this question, scientists have looked for the presence of adenomatous polyps (adenomas) in the colons of 18,000 people with an average age of 40⁽¹⁾. These adenomas are precancerous lesions which progressively evolve into colorectal cancer and thus represent a very precise marker for the risk of developing this disease over the course of several years.

They found that overweight people, in whom the metabolism was normal, were 17% more likely to have adenomas than people of normal weight, while this risk was 45% greater in the obese. For adenomas of advanced grade, which are more likely to advance to cancer, the risk was even greater, reaching 50% for overweight and 60% for obese.

In other words, even though an overweight person can be in apparently good health in terms of metabolism, without showing early warning signs of diabetes, hypertension or heart disease, they remain at higher risk of developing certain types of cancer than people of normal weight.

FIGHTING EXCESS WEIGHT

People tend to have a fatalistic attitude towards being overweight, somewhat as if it were normal and inevitable to accumulate these pounds with age. In reality, this weight gain much rather reflects poor eating habits and the reduction in the level of physical activity that accompanies aging, often in reaction to the busy hours of modern life that don't leave much time for taking care of our health.

Yet the potential to prevent cancer by maintaining a normal body weight is absolutely extraordinary and it is truly worth the effort of avoiding excess weight throughout the adult lifetime.

In the case of colon cancer, the second most common cause of cancer death in Canada, it is estimated that maintaining a normal body weight, combined with a diet rich in certain fruits and vegetables, moderate consumption of red meat and regular physical exercise, would reduce colon cancer by 75%.

⁽¹⁾ Yun, K.E. et al. Impact of body mass index on the risk of colorectal adenoma in a metabolically healthy population. *Cancer Res.* 2013; 73:4020-4027.