We would like to offer some suggestions on changes that can be made in the lifestyle now in vogue in our society, changes that truly have the potential to decrease your risk of being stricken by cancer. We have seen that the principal characteristic of the Western diet is its extreme quality, in its excesses as well as in what it lacks: too much sugar, too many fats, and too many red meats on one hand, and too few fruits and vegetables and too little dietary fibre on the other. Re-establishing a balance in dietary intake of these two extremes while avoiding selected ‘bad’ foods as much as possible can only have beneficial consequences on the prevention of chronic diseases such as cancer. But changes in diet, however essential, form only part of a bigger picture; other changes in lifestyle may also have an enormous impact on the risk of being affected by cancer.

**THE OPTIMAL CANCER PREVENTION DIET**

A close relationship exists between the nature of diet and the risks of developing several types of cancers; we can use our knowledge about this relationship to effect important changes in lifestyle, thereby preventing cancer at the source, before it becomes too formidable an enemy.

It is important to grasp that none of the foods described in this book are in and of themselves miracle cures against cancer. The very concept of «miracle cure», so popular and pervasive in society, is responsible for the lack of interest shown by people in the impact of their own lifestyle choices on the development of serious diseases, such as cancer. We believe that cancer should be approached in a more realistic manner, by admitting that even given our current scientific and medical knowledge, this disease is too often a fatal one, one that we must do everything in our power to fight with the tools at our disposal. We should be afraid of cancer; however, instead of paralyzing us or invading our thoughts obsessively, this fear should be “constructive,” pushing us to adopt the behaviours that are most likely to counter the disease. In the same way that a person chooses to control her fear of a fire by installing a smoke detector in every room in her house, our fear of cancer may incite us to react by modifying lifestyle, so as to protect ourselves from this disease as best we can.
Once again, cancer prevention is made possible by changes in diet, such as including foods that constitute abundant sources of anti-cancer compounds. By referring to all the available scientific data on the anti-cancer potential of compounds of dietary origin, we can put together what may be called an optimal cancer prevention diet, a diet based in large part on the daily intake of foods known to be exceptional sources of anti-cancer molecules.

No one food contains all of the anti-cancer molecules able to act on these processes as a whole; this is why incorporating the greatest possible variety of foods into diet is so important. Eating cruciferous vegetables, for example, as well as vegetables belonging to the garlic family, helps the body eliminate carcinogenic substances, thus reducing the ability of these substances to cause mutations in DNA that may lead to the appearance of cancerous cells. In the same vein, the absorption of green tea, berries, and soy prevents the formation of the new blood vessels necessary for microtumour growth; the microtumours remain blocked at a latent stage of development.

We have only to think of the resveratrol in grapes, which can act on all three stages of cancer, or the genistein in soy, which in addition to being a phytoestrogen that weakens the sometimes harmful effects of sex hormones is also a powerful inhibitor of several proteins involved in uncontrolled cancer cell growth. This diversity of anti-cancer molecules in food is crucial because cancer cells can exploit many different pathways in order to grow; it is misguided to attempt to control their talent at bypassing obstacles by using anti-cancer molecules that only interfere with a single process.

MUCH, MUCH MORE THAN ANTIOXIDANTS!

Before describing the ways in which phytochemicals can be beneficial in the prevention of cancer, an important point must be made. These compounds are much more than “simple” antioxidants. It is impossible nowadays to talk about the beneficial properties of any food without someone mentioning the “antioxidant potential” of that food or its high antioxidant content. In fact, the term is used so often, and with such little meaning, both by the science press and the popular media, that one might think the only function of foods is to provide a source of antioxidants (vitamins, too, but since most vitamins also have antioxidant properties...)

One might be forgiven for thinking that the antioxidant label is what makes a particular food good or bad for health (see chart).
To be sure, many phytochemicals, notably polyphenols, have a chemical structure that is ideal for absorbing free radicals; such substances are much more powerful antioxidants than vitamins. A medium-sized apple, for example, which contains a relatively small amount of vitamin C (about 10 milligrams), boasts an antioxidant activity that is the equivalent of 2,250 milligrams (2.25 grams) of vitamin C! In other words, there is a much greater correlation between the presence of phytochemicals such as polyphenols in fruits and vegetables and their antioxidant properties than there is between these properties and vitamin content.