



la lotta al cancro non ha colore

Food  
Health comes  
from food

# Why this booklet?

The number of overweight and obese adults in developing countries has almost quadrupled since 1980. Today it has reached about a billion of people in these countries (from 250 to 904 million people) compared to 557 million of the developed nations. North Africa, Middle East and Latin American regions have seen a significant increase, reaching levels similar to those of Europe (58%). Australasia and southern Latin America have now reached 63%.

## **Overweight it is not only a beauty problem.**

The extra pounds and poor nutrition increase the risks of developing a cardiovascular disease or cancer. More than 30% of all tumors are related to a poor nutrition, both in quantity and quality of food.



## Who we are

The **Insieme Contro il Cancro** Foundation is a non-profit organization born to fight against cancer all around, by implementing communication and education campaigns, research activities, prevention (including healthy lifestyle, screening), diagnosis and treatment, rehabilitation and social reintegration of people affected by cancer.

# Weight problems?



According to the World Health Organization (WHO) overweight adults (aged over 20) are almost 1 billion and a half. Of these, 200 million men and 300 million women are obese.

## ✓ What is the main cause of extra pounds?

The excessive food intake due to improper eating habits or an eating disorder. This is often combined with a **wrong lifestyle** (especially alcohol intake).

## ✓ What about physical inactivity?

Another risk factor for overweight and obesity is a sedentary lifestyle, with no differences between males and females.

## ✓ How to calculate your ideal weight?

The most used system is the **Body Mass Index (BMI)**. It is obtained by dividing the body weight (kg) by the square of height (meters). The ideal range is between the values of 18.5 and 24.9. The index of overweight is between 25 and 30, while over 30 is considered obesity.

## Checking the waist circumference ✓

You can determine the degree of overweight by measuring your waist circumference. It's simple, you must:

1. Always use a tape measure (not elastic)
2. Place yourself in front of a mirror with naked abdomen
3. Make sure to position the measuring tape at the waist level, horizontally, parallel to the floor. The reference point is the navel.

The waistline must be less than 88 cm in women and 102 in men. Besides these thresholds the health risk is high.



## ✓ What are the health risks?

Overweight is responsible for some types of cancer, cardiovascular diseases and hypertension, type 2 diabetes, respiratory diseases, osteoarthritis, psychological problems and impaired quality of life. The risk is also influenced by the relative amount of overweight and the location of body fat. A relatively small weight loss (10-15%), especially when combined with an increase of physical activity, can help reduce most of these risks.

## ✓ Which types of cancer are due to overweight or obesity and why?

The body fat constitutes a cholesterol deposit which is the essence of the synthesis of some sex hormones to which several tumors are sensitive. The risk of cancer increases not only for those suffering from obesity but also for those with a little overweight. The types of cancer which are most affected by these risk factors are the colorectal, breast, pancreas, liver, ovary, kidney, esophagus, cervix and uterus cancer.

# The importance of a

A healthy diet is important for a good health during all stages of life. A good diet with an active lifestyle and without excess are the fundamentals of cancer prevention. A good and balanced diet should provide a variety of foods.

**Foods contain several chemicals called nutrients. The main ones are:**

### CARBOHYDRATES

To be used by the human body, carbohydrates need to be transformed into sugars. They have an 'energy' function and we find them in bread, rice, pasta, potatoes, fruit, milk, sugar and honey.



### PROTEINS

Proteins are used for the creation of tissues and body cells. They have a 'constructive' function. Fish and meat are the main sources of proteins but we can also take them by eating legumes, soy and nuts.



### FAT

Fat provides energy to the body with a greater extent than any of the other nutrients. It has a 'reserve' function and it can have animal (butter, cream, lard) or vegetable (olive oil or seed oil) origin.



# good diet

## Others substances are important for a good diet:



- ✓ **vitamins** should be taken daily through fresh fruit and vegetables
- ✓ **mineral salts** such as calcium, magnesium, phosphorus, iron, sodium and potassium, iodine, fluorine, chlorine, zinc, copper, chromium and selenium
- ✓ **fibres** have a 'healing' function and reduce the risk of outbreak of some diseases such as diabetes and colorectal cancer
- ✓ **water** it is required to drink at least 1,5/2 litres per day

Hormone-dependent tumors (i.e. breast, prostate, endometrial), colorectal and lung cancers are very popular both in Western and developing countries. This is due mainly to high calorie foods, rich in animal proteins, fat, refined carbohydrates and poor in vegetables and fruit.



## 10 tips for a perfect diet

1. **During meals vary foods to ensure an adequate energy and nutrients intake**
2. **Have always breakfast and avoid skipping meals**
3. **Eat at least 5 servings of fruit and vegetables every day**
4. **Eat grains daily (bread, pasta, rice,..)**
5. **Eat fish (fresh or frozen) at least twice a week**
6. **Eat legumes because they provides a good quality of proteins and fibers**
7. **Limit as much as possible fat consumption, especially that of animal origin**
8. **Eat less salt and use always the iodized one**
9. **Limit sweets and avoid sugary drinks**
10. **Drink plenty of water every day**

A nutritional model that reflects well these guidelines is the **Mediterranean diet**.

# The princess of all diets

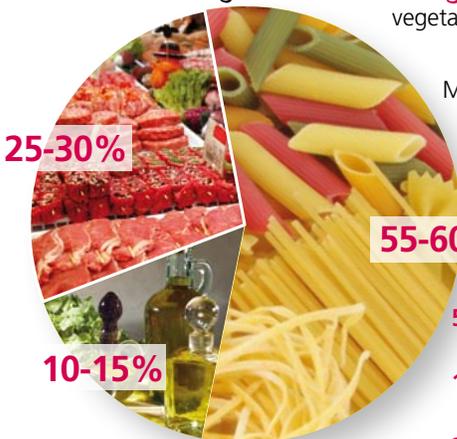


It is mainly based on fruit, vegetables, legumes, cereals, olive oil and fish, but also milk, dairy products, meat and eggs. There aren't forbidden foods, but it gives advices about quantity and frequency. We are talking about the Mediterranean diet, which is a real food culture, born and developed over the centuries in the countries bordering the Mediterranean sea. In 2010 it has been recognized as a world heritage by UNESCO.

Several scientific studies have shown a strong link between the Mediterranean diet and a reduced cancer risk. The main reasons of the protective effect of this diet on the organism are:

- ✓ The large amount of fruit and vegetables, which are able to provide vitamins and mineral salts
- ✓ The limited consumption of saturated fats and cholesterol
- ✓ The intake of valuable polyunsaturated fatty acids omega-3 derived from oily fish and omega-6 from vegetable oils (corn and sunflower).

The Mediterranean diet contains on average:



Meals are **five**: three main meals (breakfast, lunch and dinner) and two of 'support' (mid-morning and afternoon snack).

**55-60%** of carbohydrates, of which 80% are complex and 20% simple sugars

**10-15%** of proteins, of which 60% have animal origin and 40% have vegetable origin

**25-30%** of fat.

# Anti-cancer foods



✓ **Legumes:** are very rich in vegetable proteins, iron, B vitamins, fiber, saponins. They also contain the isoflavones (phytoestrogens) which prevent tumor growth by modulating the action of sex hormones.



✓ **Whole** foods are antioxidant nutrients which stabilize blood sugar and cholesterol and reduce estradiol (estrogen hormone). Table foods should include wheat, rice, oats, barley, corn and their whole wheat which provides cellulose, B vitamins and minerals (selenium and iron).



✓ **Seeds and nuts:** walnuts, almonds, prunes are rich in potassium and anti-cancer compounds (like laetrile of almonds, phytosterols of peanuts, omega 3 fatty acids of walnuts, selenium of Brazilian nuts or A and E vitamins of sunflower, pumpkin, sesame seeds).



✓ **Fish:** especially the fat type, such as oily fish (sardines, anchovies, mackerel), provides antioxidant substances such as polyunsaturated fatty acids omega-3, coenzyme Q10 and selenium.

THE BEST  
EVER CONDIMENT

Olive oil is essential in the 'Mediterranean diet'. It contains a high amount of monounsaturated fat, especially oleic acid, which helps lower the cholesterol level and creates a substrate resistant to oxidation. Because of that, it helps maintain a healthy cardiovascular system. Mainly due to the virtues of lipid-lowering and antioxidant oleic acid, olive oil represents a good protection against some types of cancer.

# 5 portions of well-being



Fruit and vegetables are valuable antioxidants for the body that eliminate free radicals, which are responsible of cellular degeneration. We must consume every day five portions of it, preferably fresh and seasonal.



Fruit is a great and healthy snack to eat mid-morning or in the afternoon. About vegetables, be careful not to abuse of condiments (just half a teaspoon of oil) while it is not necessary to add sugar to the fruit. A serving of fruit corresponds to about 150 grams, while one of vegetables to 250 grams.

On **cancer prevention** (especially colorectal cancer), vegetables, in particular the extremely fresh ones, are effective: in fact, broccoli are rich of anti-tumor principles. It is useful to prefer **every kind**

**of cabbage**, because rich of protective substances, dark green leafy vegetables (spinach, chard) and those yellow-orange (carrots, pumpkin), that contain carotenoid and C vitamins which have an antioxidant function.

Bulbs, such as onion, garlic, leek, are also very useful. Among fruits it is preferable the orange variety, but avoid those that are too sugary.





## Not recommended foods

✓ **Red meat and charcuterie:** must be eaten only once a week. If grilled, meat is harmful for your health: fat dripping and high temperatures release all the carcinogens substances of the steak. The barbecue increases the risk of prostate and stomach cancer. Be careful also to charcuterie: red meat processed and treated with preservatives, such as nitrites, and mixed with other types of meat, such as sausages, bacon and similar products, can also lead to about 20% increase of being affected by tumor.



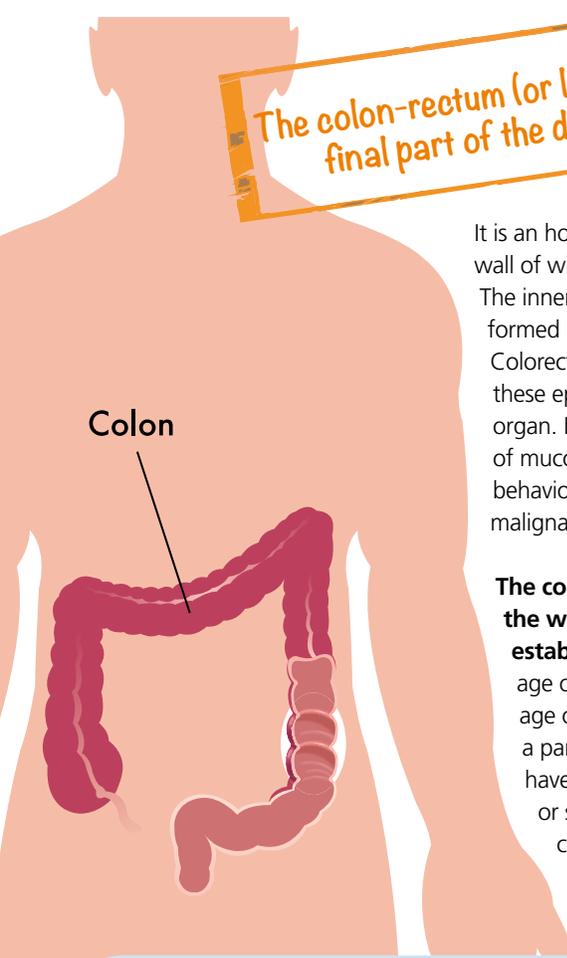
✓ **Salt:** is the main responsible for hypertension and some tumors (stomach and pancreas). About 5 grams per day are enough. Attention: a sandwich already contains 1 gram! It is much better to use low sodium salt or fine herbs and spices. Dice-based monosodium is to banish from the kitchen.



✓ **Alcoholic beverages:** alcohol is a highly toxic and potentially carcinogen substance. Its consumption increases the risk of being affected by oral cavity, pharynx, esophagus, larynx, liver, bowel and breast cancer. Alcohol can be addictive much more than others drugs. Experts have established a limit of 1 drink per day for women and 2 for men.



# Colorectal cancer



The colon-rectum (or large intestine) is the final part of the digestive system.

Colon

It is an hollow organ, about 1,5 meters long, the wall of which consists of several concentric layers. The innermost part is called mucosa, rich of glands formed by epithelial cells, which secrete mucus. Colorectal cancer is a malignancy that arises from these epithelial cells of the mucosal surface of the organ. Most tumors originate from small protrusions of mucosa called 'polyps' that have initial benign behavior, but if left in place, they can turn into malignancies over time.

**The colorectal cancer is the fourth cancer in the world. Its connection with the diet is well established.**

It is a fairly rare disease before the age of 40 and more and more frequent from the age of 60. In colorectal cancer, family history is a particularly relevant risk factor. For those who have a first-degree relative (e.g. father, mother or sibling) already suffering from this form of cancer, the risk increases by 2-3 times; the danger grows by 3-4 times if more first-degree relatives are

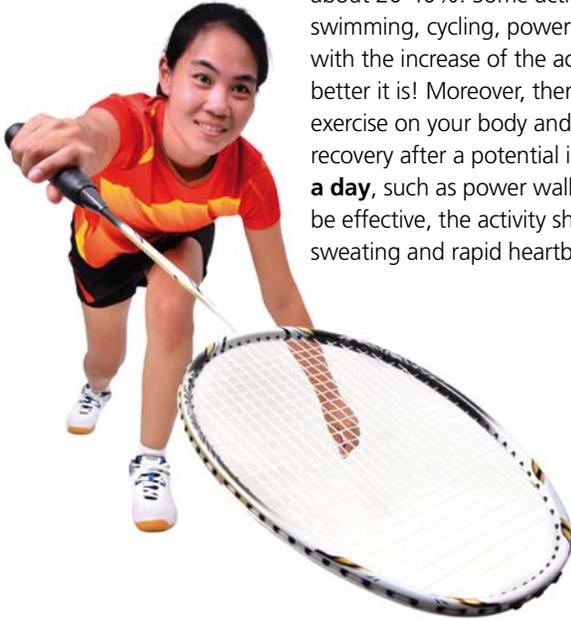
sick, or if the cancer has occurred at a particularly early age (before age of 50).

## Prevention is the first weapon against cancer

Several scientific studies have demonstrated the protective properties of certain foods in preventing colorectal cancer formation and growth. Among them, many are the typical products of the Mediterranean diet, such as olive oil, tomatoes, vegetables, citrus fruits, oily fish. Besides a healthy diet, it is necessary to have periodical examinations because our body needs 'check ups' to verify that everything is working well. Colorectal tumors typically occur with not visible blood loss, but they can be identified with a stool test called 'fecal occult blood test' (FOBT). If we find cancer when it is still very small, we can cure it permanently. Who is 50 years old should undergo this test every two years, because this simple technique, along with colonoscopy, can save many lives.

## The importance of physical activity

Regular sport training and practice help you maintain the right healthy weight and reduce the chances to be affected by tumors by about 20-40%. Some activities are suitable for everyone: jogging, swimming, cycling, power walking. The protective effect increases with the increase of the activity. The more sports you practice the better it is! Moreover, there are also undoubted benefits of moderate exercise on your body and your mood, especially in promoting recovery after a potential illness. **At least 30 minutes of exercises a day**, such as power walking or a bike ride, are recommended. To be effective, the activity should have an intensity to produce some sweating and rapid heartbeat.



## Say no to smoking

Tobacco is one of the most hazardous substances for health: those who smoke are more likely to develop over 50 serious diseases, including cancer. Carcinogenic substances contained in cigarettes are responsible for nine every ten cases of lung cancer! If you smoke it is important to stop as soon as possible: each week with a cigarette in your mouth is equivalent to one day of life lost. The consumption of cigarettes in the world has doubled from the 60's until today. But in the last two decades smoking has declined in Western countries, while in developing regions it increases by 3.4 % each year.

**Be careful also to passive smoking**, that, like the active one, has more than 4,000 chemical substances in the form of particles and gases. It is probably the most dangerous kind of smoke because it has a high concentration of toxic products. The partner of a smoker has a 20-30% greater chance of developing lung cancer.



- Overweight it is not only a beauty problem. Extra pounds and poor nutrition increase the risks of developing cardiovascular disease or cancer.

- A healthy diet is essential for a good health during all stages of life. Proper intake of food together with an active lifestyle, are the basis of cancer prevention, especially colorectal, a disease increasingly widespread

- The Mediterranean diet is the ideal dietary pattern: it recommends to eat fruit and vegetables, to limit red meat and foods with high saturate fat consumption and favoring fish, especially the oily one

- To stay healthy it is also essential to exercise, not to smoking and limiting alcohol consumption to no more than one/two glasses of wine per day

