

*Focus on...*

# obesity

▶ FOCUS HEALTH



**IBSA FOUNDATION**  
*for scientific research*

**It is not just  
about  
physical  
appearance,  
it is about  
health!**

Obesity is a **complex pathology**, and almost always caused by the interaction of multiple factors. It is only very rarely caused by a real disease.

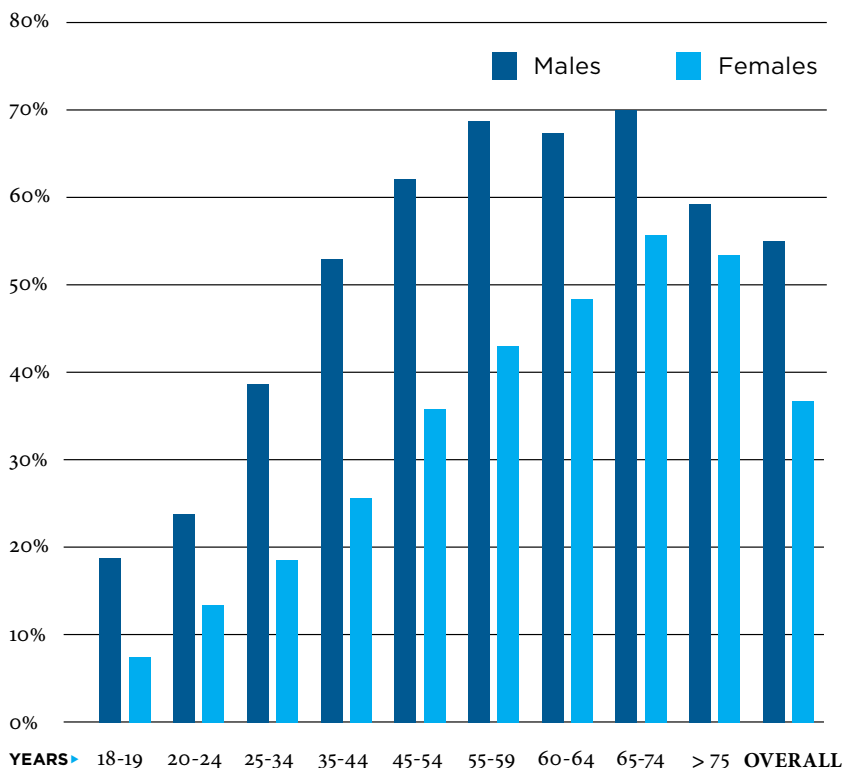
The World Health Organization defines obesity as a “**chronic condition** characterized by excessive fat accumulation that may impair health”. Practically speaking, **more calories are consumed than are used** and we gain weight when incoming calories exceed outgoing ones!

The only way to avoid accumulating fat is to maintain the **right balance** between consumed energy (food) and used energy (physical activity and metabolism).

## HOW WIDESPREAD IS OBESITY?

The most recent scientific evidence indicates that overweight and obesity, in both children and adults, are increasing dramatically worldwide. Overweight is considered one of the most common problems linked to contemporary life.

### Percentage of people aged 18 and over who are either overweight or obese, divided by sex and age\*



\*2013. Individuals aged 18 and over with the same characteristics.

**SOURCE:** ISTAT (Italian National Institute of Statistics). "Indagine Aspetti della vita quotidiana".

## OBESITY OR OVERWEIGHT?

BMI (Body Mass Index), which measures the relationship between weight and height, is a key reference for understanding the difference between being overweight and being obese.

BMI is calculated by dividing a person's weight in kilograms by the square of their height in metres ( $\text{kg}/\text{m}^2$ ). For example, an adult who weighs 70 kg and is 1.75 m tall will have a BMI of 22.9 [ $70/(1.75 \times 1.75)$ ].

**Healthy individuals** have a **BMI** between **18.5 and 24.9**. Whereas a person is classified as **over weight or obese** if he or she has a BMI equal to or above, respectively, **25.0 or 30.0**.

The risk of developing **correlated pathologies** (co-morbidity), which is very high in people who are obese, corresponds to BMI.

### BMI categories and ranges

Classification	BMI ( $\text{kg}/\text{m}^2$ )	Risk of co-morbidity
Normal weight	18.5-24.9	Average
Overweight	25.0-29.9	Increased
Class I obesity	30.0-34.9	Moderate
Class II obesity	35.0-39.9	High
Class III obesity	> 40.0	Very high

# COMPLICATIONS OF OBESITY

## ➤ **Cardiovascular Complications**

Increased risk of cardiovascular disease (for example, coronary heart disease, coronary or vascular insufficiency and arterial hypertension) and, over the long-term, sudden death and stroke.

## ➤ **Metabolic Complications**

The major disease in this category is Type 2 diabetes: around 80-90% of Type 2 diabetes patients are obese.

## ➤ **Respiratory Complications**

The lungs are always working under strain, with the result that one becomes tired even when making only slight effort, for example climbing just a few steps

## ➤ **Endocrine Complications**

Women may suffer menstrual dysfunction or irregularity and problems with fertility. While in the case of men, total testosterone levels are reduced, which is one of the main causes of erectile dysfunction.

## ➤ **Bone and Joint Complications**

Excess weight increases the burden on the joints, especially those of the hips and knees, causing premature wear, frequent inflammation and pain.

## ➤ **Psychosocial Consequences**

The obese encounter a great many problems in everyday life, including in the work environment, often due to the stereotype that overweight people are lazy, slovenly and emotionally unstable. These commonplaces, together with difficulty of movement and, from a practical point of view, the challenging and complex search for clothing that covers and

“doesn’t hide”, can discriminate against an obese individual and cause him or her discomfort. Discomfort that also inevitably conditions the sex lives and relationships of the obese, sometimes leading to isolation.

### ➤ **Increased Risk of Tumours**

A number of clinical studies have shown that people with pathological obesity can also develop certain forms of cancer more easily than people of normal weight: in men, there is increased risk of colorectal and prostate cancer, while in women there is a higher incidence of uterine, ovarian, breast and gallbladder cancer. Recently, the term **adiponcosis** was introduced into the scientific community: derived from the combination of the Latin term *adiposis* (fat accumulation) and the Greek term *oncosis* (tumour formation), it was adopted to describe, in a single word, how **excess body fat can contribute to the development of neoplasia**.

## **THE CAUSES OF OBESITY**

Recent studies have confirmed that **genetic factors** can cause obesity and influence the regulation of body weight. However, genetic factors only explain about 33% of body weight variations. This means that **environmental factors** are heavily influential. Socio-economic status, for example, plays a fundamental role, since it strongly conditions both food consumption and energy expenditure: having a low **socio-economic status** from birth is a major risk factor. Disproving the widespread cliché, obesity is not a “problem of the rich”: the most potentially disadvantaged socio-economic brackets in fact tend to consume more fats and carbohydrates and to pay less attention to their health.

Another extremely important environmental factor is the **sedentary lifestyle** characteristic of western society and caused by the increasingly static nature of much work activity, changes in use of transportation means and growing urbanisation.

## **NUTRITION AND LIFESTYLE**

Proper nutrition and a healthy lifestyle are not only an aesthetic goal, but above all a **target for people who want to stay healthy**.

But what does healthy eating mean?

- limiting consumption of high-calorie foods;
- avoiding sugary drinks;
- choosing vegetable-based foods, unrefined cereals, legumes, low-starch vegetables and fruit (at least 5 portions per day);
- limiting consumption of red meat and avoiding preserved meats (tinned meats, salami, cured ham);
- limiting consumption of alcoholic drinks;
- limiting use of salt (no more than 5 grams per day);
- varying foods to ensure consumption of all of the essential nutrients.

Eating “well”, however, is not enough, since lack of physical exercise leaves our energy reserves (fat!) unused, establishing a **vicious cycle**. In fact, inactivity causes an increase in weight that, in turn, makes it harder to engage in even moderate physical exercise.

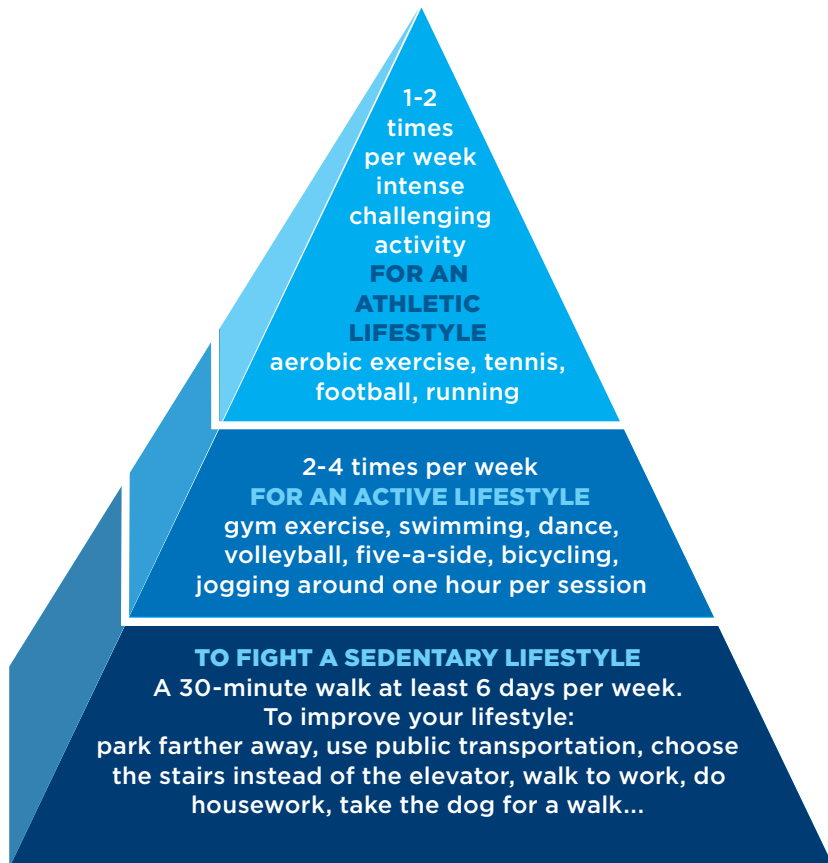
And yet, **just 20 minutes per day are enough to make the difference** and bring significant benefits:

- keeps the body “in shape”;
- reduces appetite and the desire for fatty foods;



- boosts the metabolism;
- achieves a state of psychological wellness, reducing stress and anxiety and increasing self-esteem and self-control.

## The Italian Physical Activity Pyramid



**FONTE:** “Piramide Alimentare Italiana. Guida settimanale per uno stile di vita salutare” (The Italian Food Pyramid. A Weekly Guide for a Healthy Lifestyle), published by the Nutrition Science Section of the Department of Medical Physiopathology, Sapienza University of Rome.

## WHO TO CONSULT FOR HELP?

Sticking to a diet and changing your own habits is no easy task and that is why it is necessary to consult an **expert** (nutritionist, endocrinologist, psychologist), or even better, a multi-disciplinary team, to help you face the challenges and difficulties linked to inevitable relapses into unhealthy behaviour.

Turning to a specialist, with whom you can build a **solid alliance**, is as valuable as medicine, if not more so!

### IMPORTANT

- **Get informed** about why it is necessary to change an aspect of your own behaviour: collect material and read it attentively. The more you are convinced of being on the right path, the easier it will be to make sacrifices and accept inconveniences
- **Ask** family members to share the changes in eating habits with you: healthy eating is hard when the rest of the family is filling up on sweets and fried foods!
- **Set up** a series of appointments with your family doctor to assess your progress
- **Take action** gradually: someone who has never so much as moved a finger cannot all of a sudden start doing hours of sport each week. It is better to set up a programme that increases effort over time
- **Treat yourself** to a present when you achieve a goal: for example, buy something new to wear after you have lost extra weight

*Texts by the scientific editorial staff of Carocci Editore  
in collaboration with the IBSA Foundation.*

