



Healthy diet in practice

# Body Mass Index

Do I look good?

- A common phenomenon is the excessive eating (overeating), conditioned by many factors. It results in overconsumption of energy, resulting in the accumulation of too much fat and overweight or obese.

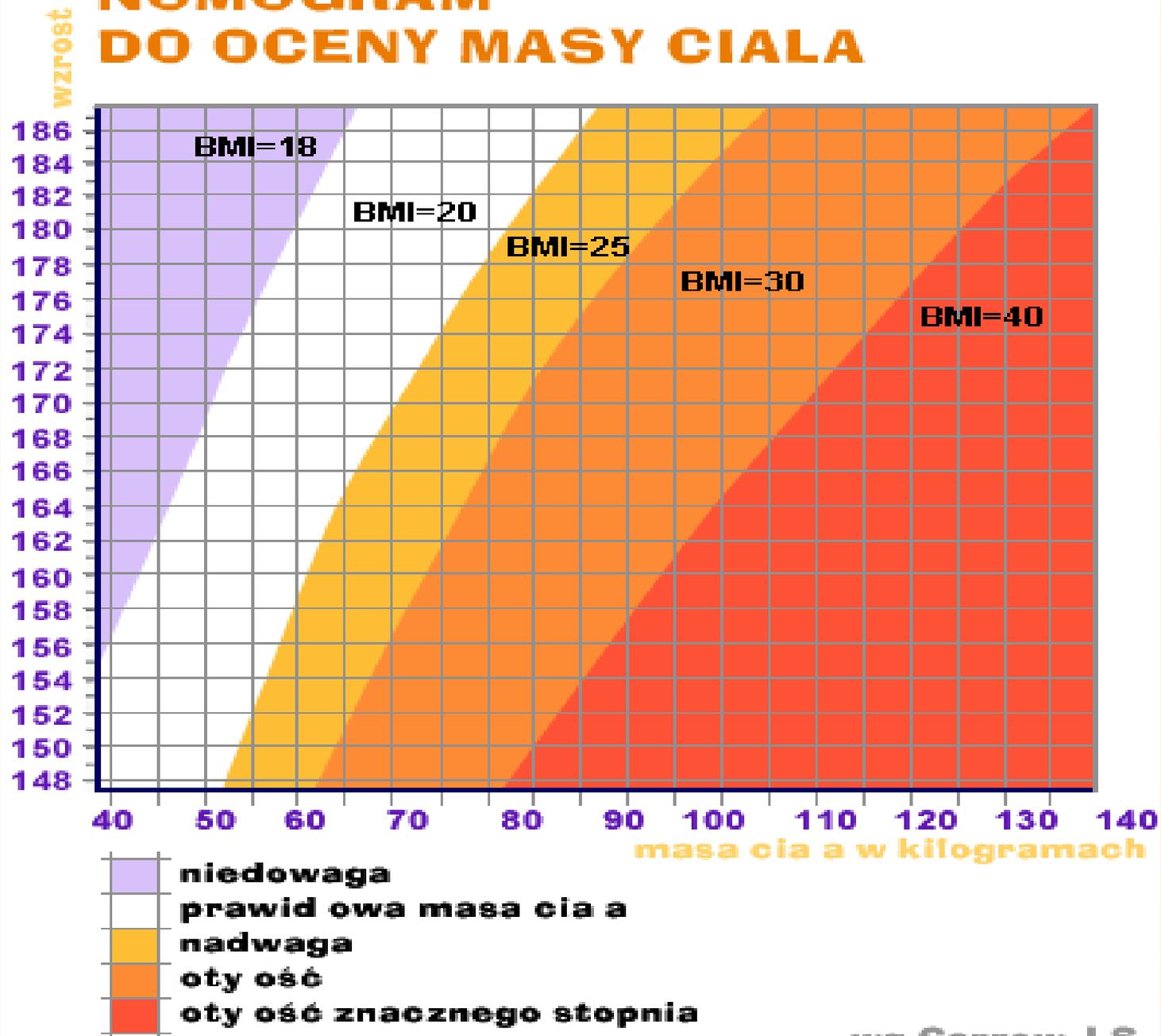


# What is BMI?

- Body mass index (BMI) is currently the most popular and simplest measure, which is used to classify underweight, overweight and obesity in adults.
- BMI is calculated by the following formula:

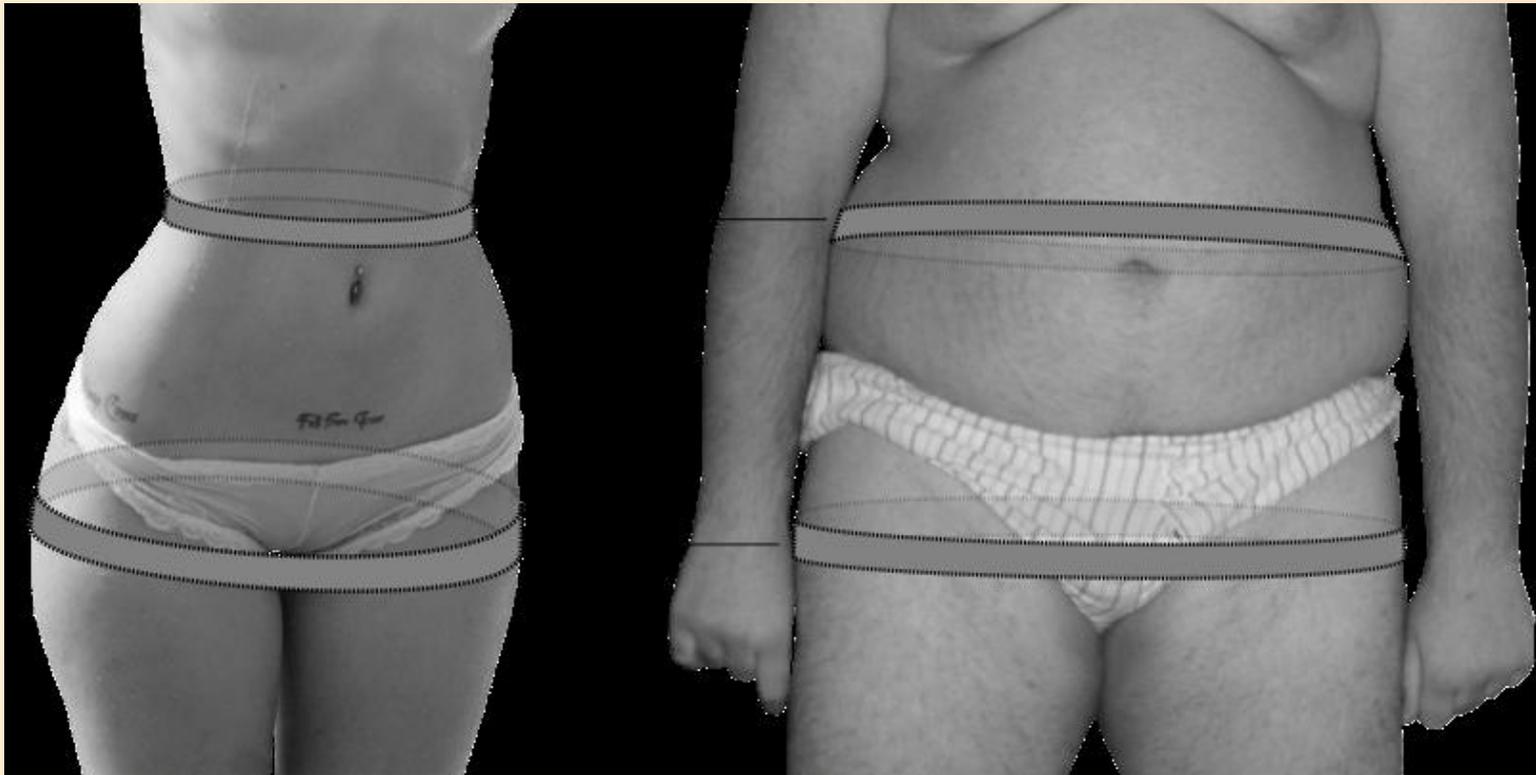
$$\text{BMI} = \text{body weight (kg)} / \text{height (m)}^2$$

# NOMOGRAM DO OCENY MASY CIAŁA



wg Garrow J.S.

WHR = The ratio of waist to hip circumference

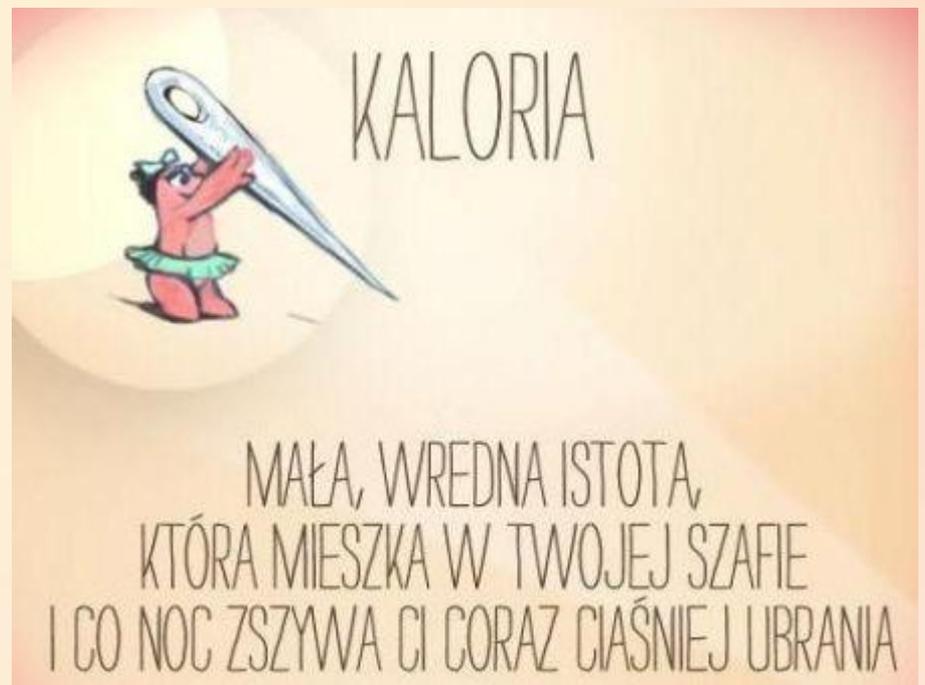


<b>For women</b>	<b>For men</b>
WHR>0.8 - silhouette of an "apple"	WHR>1- silhouette of an "apple"
WHR<0,8 - silhouette of a "pear"	WHR<1- silhouette of a "pear"

All those calories

# What are calories?

- 1 kcal (that is 1000 calories) is the amount of heat required to heat 1 g of water having a temperature of 1 degree Celsius and a pressure of 1 atmosphere.
- To put it simply is a unit of measuring the amount of energy contained in the food or beverage.



# Where are the calories hidden?

- **1 g protein is a 4 kcal**
- **1 g of carbohydrate is 4 kcal**
- **1 g of fat is 9 kcal**
- **1 g of ethyl alcohol is 7 kcal**
- **In order to lose 1 kg you must burn 7,000 calories! Therefore, it should be spread over a few days. It is virtually impossible for one day all kg, and only a few in a few days. First of all, when it is a restrictive diet a person loses water and not fat,**

# How many calories does my body need?

- Every body is different and has different needs. Our caloric needs are affected by the age, height and current weight and sex.
- Everyone has a so-called PPM (basal metabolic rate), which, when combined with physical activity ratio shows us the CPM (total metabolism).



# Step 1: Calculate your PPM

The formula of HARRIS BENEDICT :

$$\text{Men} = 66 + (13,7 \times W) + (5 \times H) - (6,8 \times A)$$

$$\text{Women} = 655 + (9,6 \times W) + (1,7 \times H) - (4,7 \times A)$$

- W- weight
- H- height
- A- age

## Step 2: Determine your PAL

The factor	Activity during the day
1,4	Mainly sedentary lifestyle
1,6	Regular fast walking, average activity
1,75	Active lifestyle
2	Very active lifestyle
2,2-2,4	Competitive sports

Multiply your PPM by the corresponding number

# Proteins, carbohydrates and fats

- Each depending on body weight has also INDIVIDUAL need for nutrients. A well-chosen diet in terms of performance sports and well-being.
- Carbohydrates provide the energy your muscles. The best are carbohydrates from whole grains: groats, pasta, brown rice; and fruits and vegetables. Inadequate amount of carbohydrates in the diet influences the slowdown in glycogen storage and muscle building protein breakdown. It is associated with including too rapid fatigue during exercise.



- The amount of protein eaten depends on the type of discipline. Athletes, vegetarians replace meat course relevant products containing vegetable protein. The protein has come primarily from the food and not the nutrients powder.
- In the case of team sports demand for protein is 1,4-1,6g / kg

The factors deteriorating results	Possible causes of habits	Suggested solutions
fatigue	lack of food / drink from the activity or during it, iron deficiency, calorie deficiency	meal / drink 30-60 minutes before and regularly during sports activities, provide the number of calorie
muscle cramps	insufficient or excessive intake of fluids; insufficient amount of sodium	supplying an appropriate amount of sodium beverage, and those having a salty perspiration (with symptoms of loss of salt in the marks on clothing)
failure to gain weight	insufficient number of calories just eating protein after exercise of power	larger and more frequent meals throughout the day, intake of protein and carbohydrates before exercise and after exercise
No loss of body fat	skipping meals too many calories from beverages eating too much food after exercise	eating at regular intervals taking into account the variety of foods fat-free fats, proteins and carbohydrates in each meal composition of restricting calories consumed in drinks consumption after exercise snack rather than a full meal

# Which nutritional values are missing among sportspeople?

- Vitamins: B1, B2, B3
- Sodium and electrolytes
- Antioxidants - A, C, E
- Calcium Folic acid, iron and vitamin B12

# How to eat on a daily basis

Practical advice

# Portions of a day for sportspeople

- 3-5 servings of vegetables
- 2-4 servings of fruit
- 4-6 servings of grain products
- 2-4 servings of protein-rich



# Liquids and electrolytes

- Hydration before exercise
  - 2 hours before exercise: approx. 500-700 ml
  - 30 minutes before exercise: approx. 350-450 ml
  - every 20 minutes during exercise: approx. 150-250 ml
- If the effort lasts longer than 1 hour we should have an isotonic drink
  - Home isotonic drink: lemon, 2l of water, 4 tablespoons of honey, 1/2 teaspoon of salt

# Meals of sportspeople

- 3 main meals and 2-3 snacks
- The intervals between meals 3-4 hours
- A hearty meal 2-4 hours before exercise. Earlier start of training can cause various symptoms of indigestion.



# Intensive training and competitions

- If you train intensively over 1h, then you should take care of providing the body with carbohydrates. After such a workout you should have on hand snacks such as rice waffle with jam, whole wheat bread with honey or peanut butter, fruit or freshly squeezed juice or smoothie, fruit and yoghurt.

Thank you for your  
attention