

BE COMPLEAT

Amadeusz Atleta

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tel.: **+48 668 596 444**

e-mail: **aleksandra.kluba@becompleat.pl**

www: **diagnostyka.becompleat.pl**

100% science
100% data
Zero guessing

Test, don't assume



Compleat REST

This test is considered the “gold standard” for assessing human **metabolic rate**.

It is performed using **indirect calorimetry** method.

Basis of this method lies in the assumption that energy used by the body is obtained through oxidation of nutrients.

During these reactions, oxygen is consumed and carbon dioxide is produced in amounts proportional to the energy expended.

It is precisely the **analysis of gas exchange** that allows us to determine **number of calories your body burns at rest**.



Substrates use

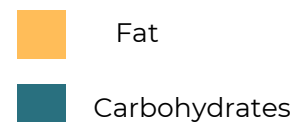
Through resting metabolic rate test using **indirect calorimetry**, you will learn:

- What your **actual resting metabolic rate** is - not just an estimate based on formulas.
- Current state of your **metabolic health**.
- How your body utilizes **main energy substrates** (carbohydrates and fats).

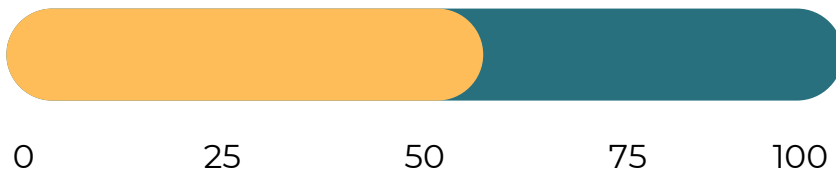
Energy sources

To produce energy required to maintain basic life functions and carry out daily activities, your body relies on mix of **fats and carbohydrates**.

High degree of **fat utilization** as an energy source is one of the most reliable indicators of cellular-level health and strong predictor of maintaining **stable body weight**.



Your body is currently using mix of **57% fats** and **43% carbohydrates**.



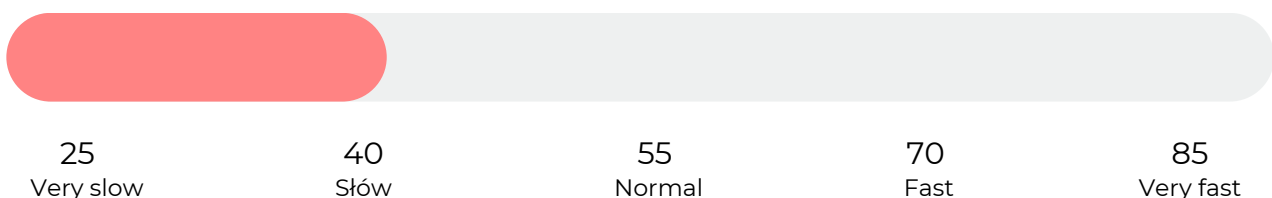
Slow or fast metabolism?

Rate of your metabolism indicates whether your body burns fewer or more calories compared to standard accepted norms.

Chronic, low-energy diets can **slow down your metabolic rate**.

Strength training (increasing lean body mass) and/or increased calorie intake can **stimulate your metabolism**.

Slow metabolism leads to fewer calories burned daily and, consequently, potential difficulties with weight loss or maintaining **steady rate of weight loss**.





Resting Metabolic Rate

Your Resting Metabolic Rate:

RMR according to **Harris-Benedict** formula

RMR according to **Mifflin** formula

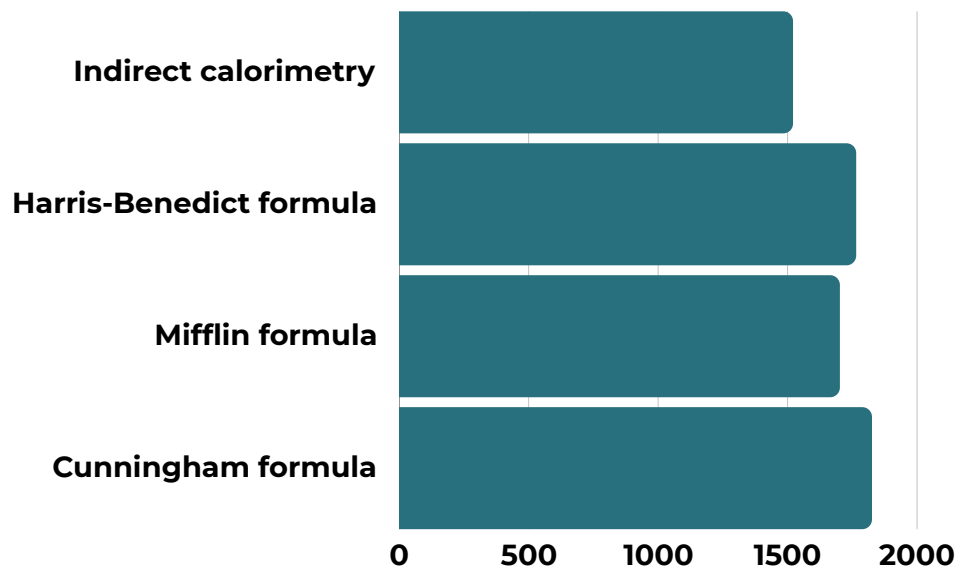
RMR according to **Cunningham** formula

1521 kcal

1765 kcal

1702 kcal

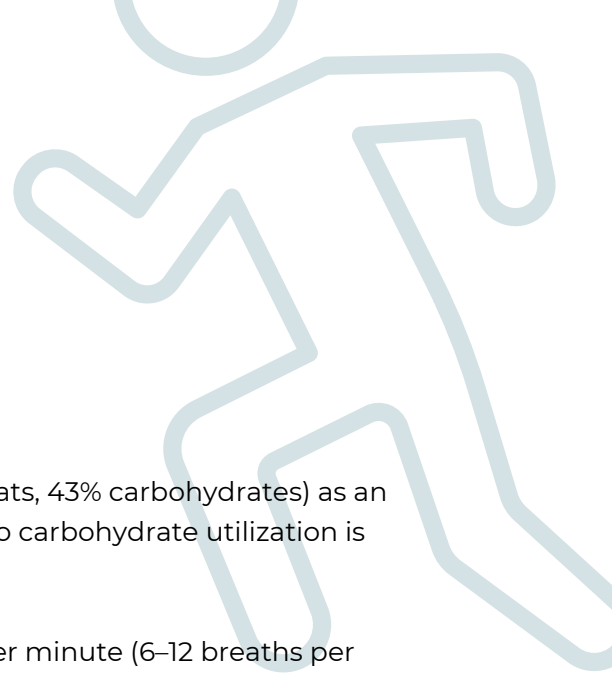
1826 kcal



Your **resting metabolic rate** serves as the starting point for analyzing your **total daily energy expenditure**. To accurately determine **energy expenditure during exercise**, we analyze results of the **ACTIVE test**.



Summary

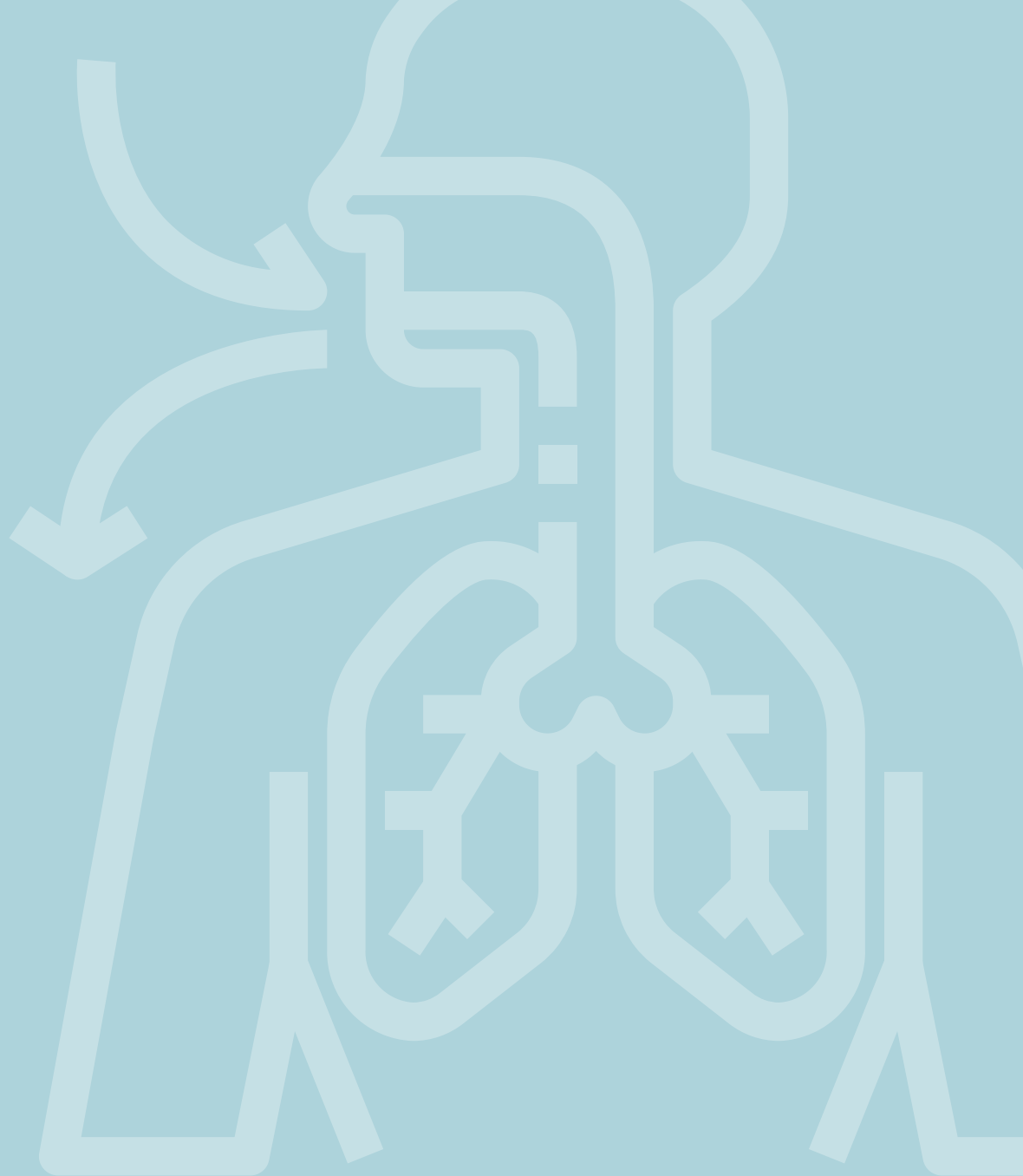


Compleat REST

- Predominance of fat utilization over carbohydrates (57% fats, 43% carbohydrates) as an energy substrate at rest. Optimal percentage ratio of fat to carbohydrate utilization is approximately 70/30.
- Optimal resting heart rate – 67 beats per minute.
- Variable resting respiratory rate averaging 7–16 breaths per minute (6–12 breaths per minute is within the normal range).
- Variable tidal volume ranging from 0.49 to 1.48 L per breath (~0.54 L is considered optimal).
- Resting Metabolic Rate is lower than estimated by formulas (1521 kcal).

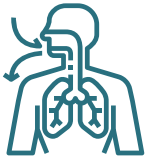
Recommendations

- Breathing – practice diaphragmatic breathing at rest. The goal is to use this technique both at rest and during low-intensity training (zones 1 and 2).
- Use of the Pro Metronome app to develop an optimal resting respiratory rate.
- Include in your daily schedule low-intensity cardio sessions (e.g. running, cycling, swimming) in order to improve metabolic health (fat oxidation during rest).



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Breathing



Breathing training (rest, zone I & II)

At rest:

- focus on breath depth, approx. 6–12 breaths/min

During training:

- Zone I / active recovery – focus on breath depth, approx. 18–22 breaths/min
- Zone II – focus on breath depth, approx. 22–26 breaths/min

Use the PRO Metronome app to monitor breathing frequency:

Download the app:

- **Apple:**
 - <https://apps.apple.com/us/app/pro-metronome-tempo-beat-subdivision-polyrhythm/id477960671>
- **Google:**
 - <https://play.google.com/store/apps/details?id=com.eumlab.android.prometronome&hl=pl&gl=US>