

# AEROBIC EXERCISE

What does the word *aerobic*  
mean?

aer = air

bios = life

> **life with air**

**AEROBIC = WITH OXYGEN**

**A-** = THERE IS NO; WITHOUT;  
LACKING

**A** + AEROBIC = LIFE WITHOUT  
OXYGEN

**> ANAEROBIC = WITHOUT  
OXYGEN**

# What does *aerobic* mean in biology?

- What are *aerobes*?
- Aerobes are organisms that exist **only** in the **presence of oxygen**.
- Anaerobes are organisms that exist in the **absence of oxygen**, e.g. some bacteria.

# What does **physiology** imply under the term *aerobic*?

- The energy process lasting **less than one and a half minutes** develops **anaerobically**, i.e. oxygen is **not** utilized for the production of energy.
- The energy process lasting **longer than one and a half minutes** develops **aerobically**, i.e. oxygen **is** utilized for the production of energy.

# The energy systems in our bodies therefore are:

- the **aerobic** energy system
- the **anaerobic** energy system:
  - a) ***lactic anaerobic*** system (meaning that lactic acid is produced)
  - b) ***alactic anaerobic*** system (meaning that lactic acid is not produced)

LACTIC < lactic acid

# What does **kinesiology** imply under the term *aerobic*?

- kinesiology is interested in the **effects of physical exercise** on human organism
- therefore, aerobic in kinesiology denotes:
  - a) that which **affects (conditions) the cardiorespiratory system**
  - b) that which **burns fat**