

**European Initiative for Exercise in Medicine**  
**3rd Congress**  
**Budapest - Hungary, 15-16 September 2014**

**EXERCISE IS MEDICINE**  
**IN HUNGARY**

# Kunó Klebelsberg 1929

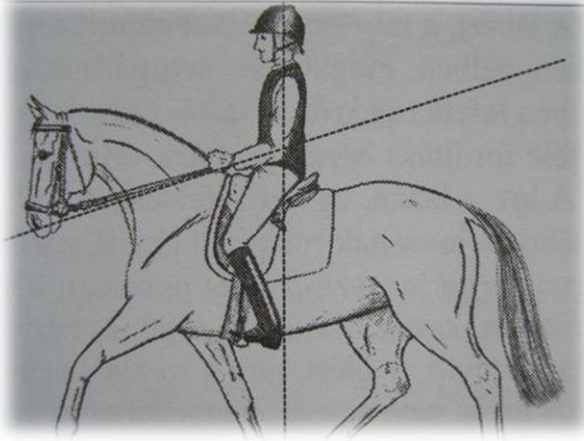


- Culture, physical education and science as means of national defense.....

# **STRONG ROOTS OF EXERCISE IN MEDICINE IN EUROPE AND IN HUNGARY (1)**

- **Heilgymnastik**
- **Krankengymnastik**
- **Swimmingtherapy**
- **Hippotherapy**
- **Physical Therapy**
- **Sporttherapy**
- **Adapted Physical Activity/Education**
- **etc. ...**

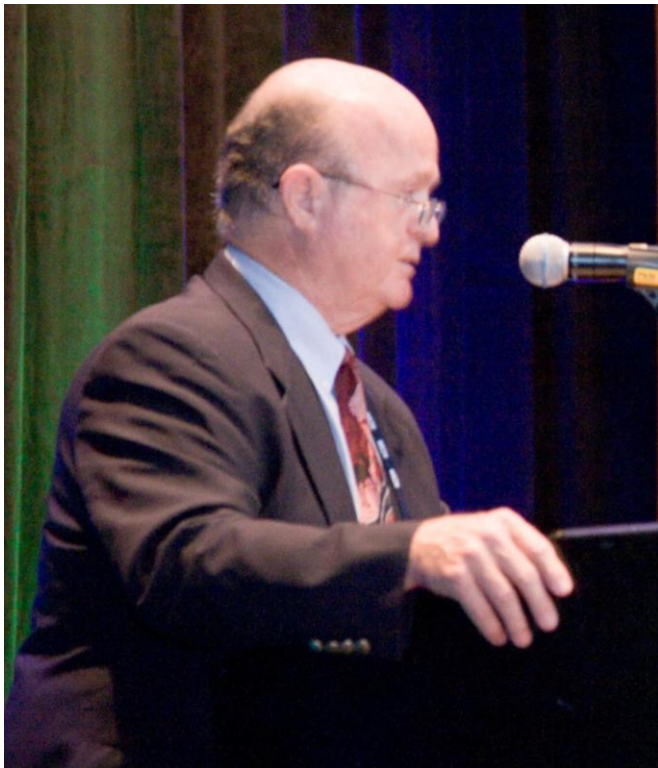
# STRONG ROOTS OF EXERCISE IN MEDICINE IN EUROPE AND IN HUNGARY (2)



# JOINING THE INITIATIVE



**First World Congress on  
EIM, Baltimore, 2010**



**Hungary joined the  
Global and the  
European Initiative**

**Prof. James Skinner**

# **ON THE WAY OF EIEIM**

## **HUNGARIAN TASK FORCE**

- **Joined the European Initiative in 2011,  
Cascais, Portugal**

# Government

- Everyday PE in schools
- Handball, soccer, basketball, water polo, ice hockey
- 16 other sports
- 130 000 000 EUR – community TAX

HSSS 1-4

# 1.

- Educational material
  - Strategies
  - EIM Hungarian e-learning material
  - EIM Kindergarten 2x18 hrs
  - Graduate teaching (medical, PE).....

## 2.

- Road show
- 4-5 towns a year
- 6-8 presentations (half day)
- GP doctors – PE teachers

# 3.

- Sport science book series
- 11 books in 4 years

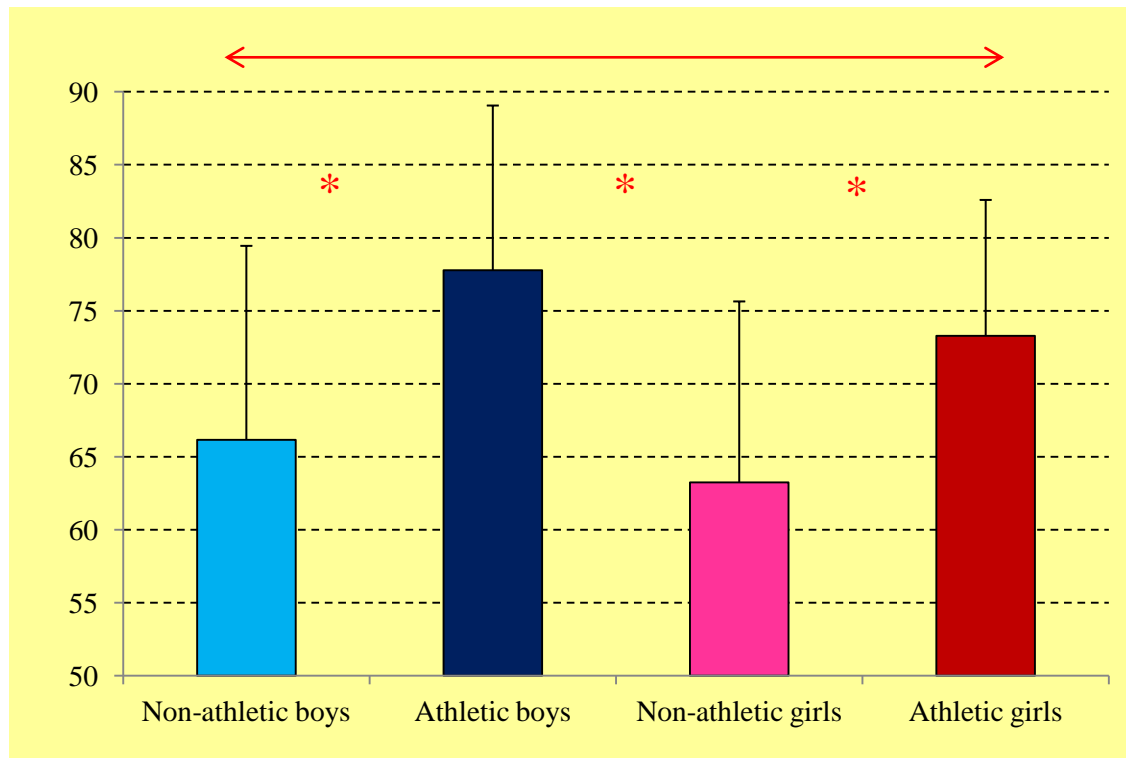
# 4.

- Scientific work
- School children
- University students
- Exercise outpatients
- Economics

# 1. School children

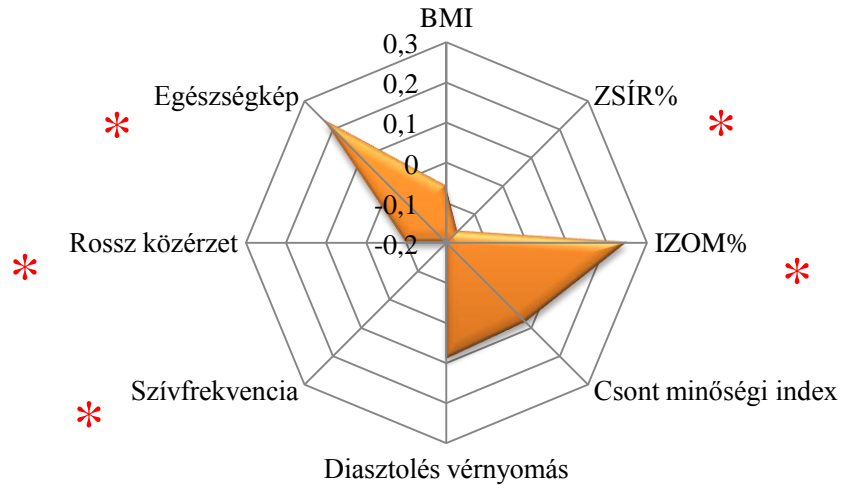
# Quantitative bone parameters and sports

## BQI: Bone Quantity Index

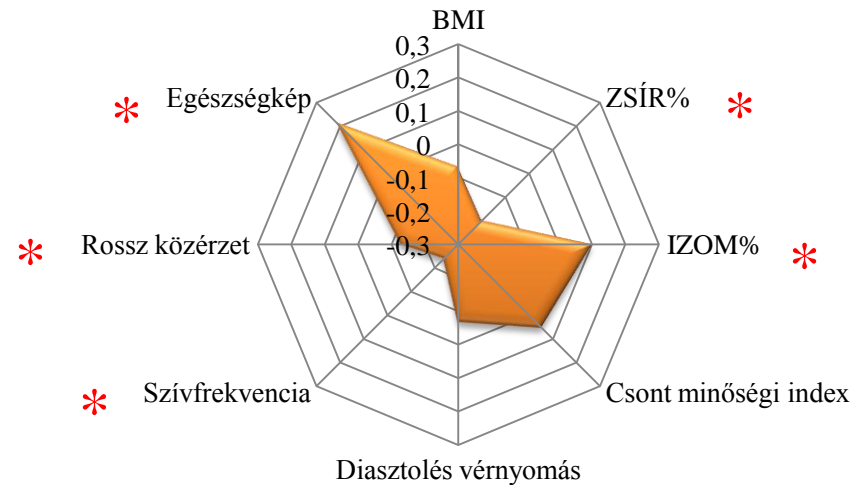


# Weekly sporting time and correlation pattern 11-14 years old

## Felső fiúk

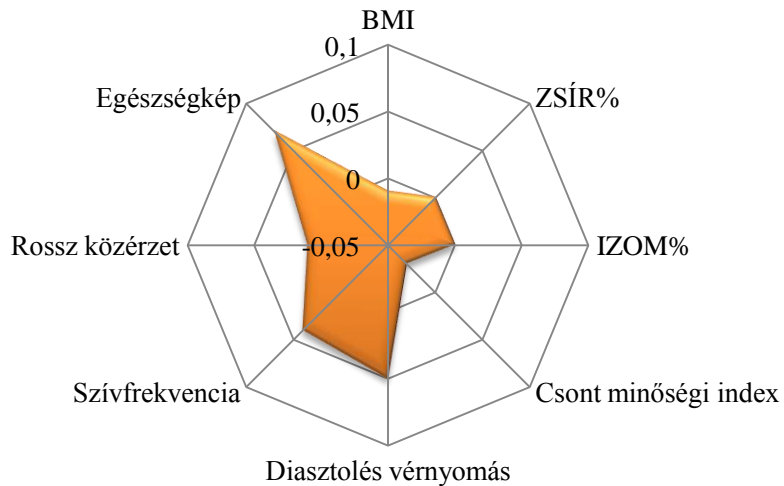


## Felső leányok

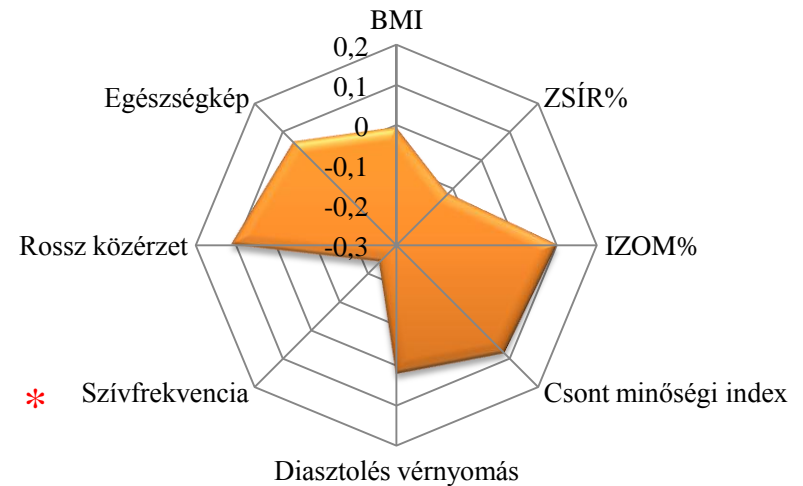


# Weekly sporting time and correlation pattern 15-19 years old

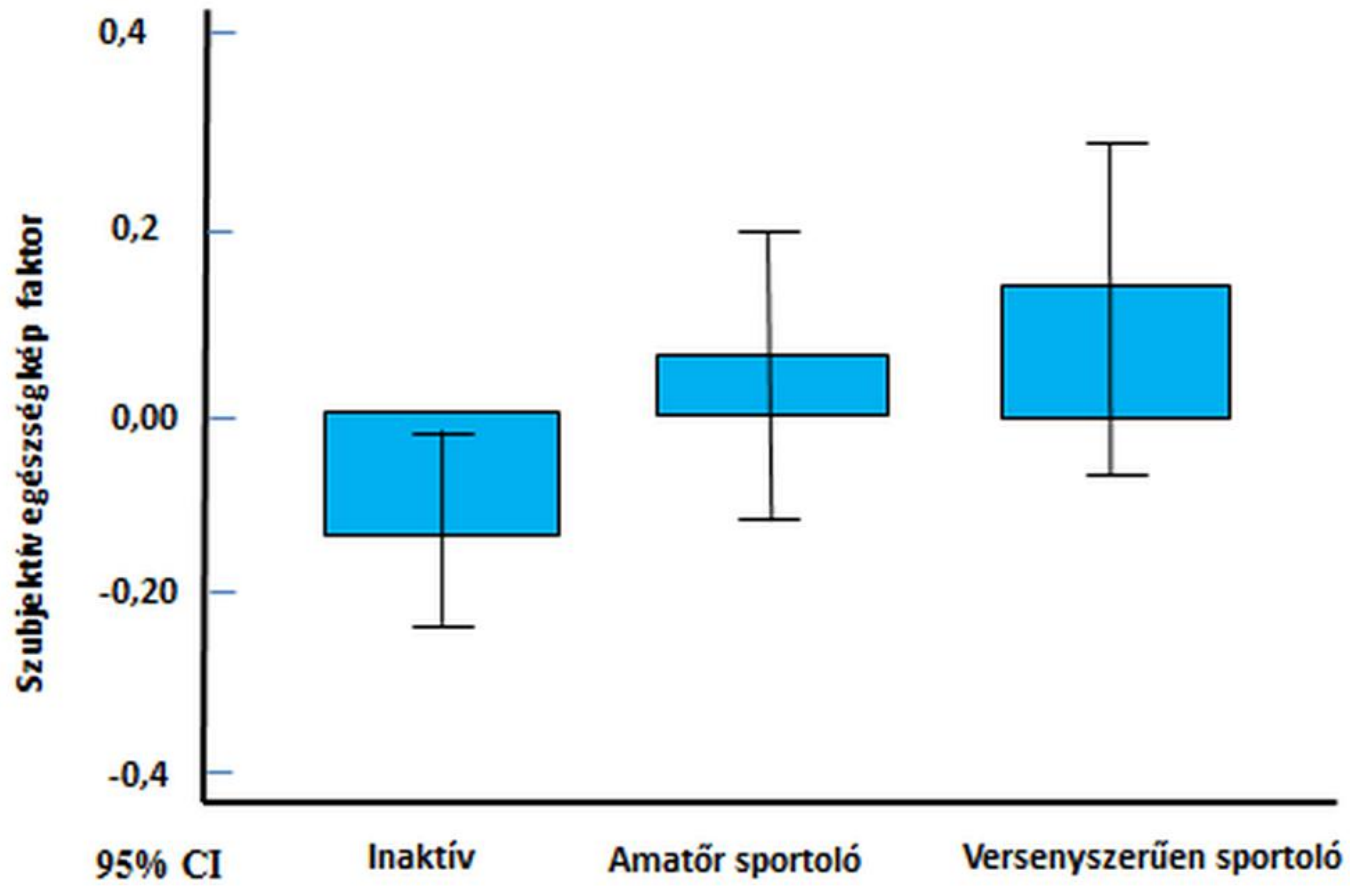
## Középiskolás fiúk



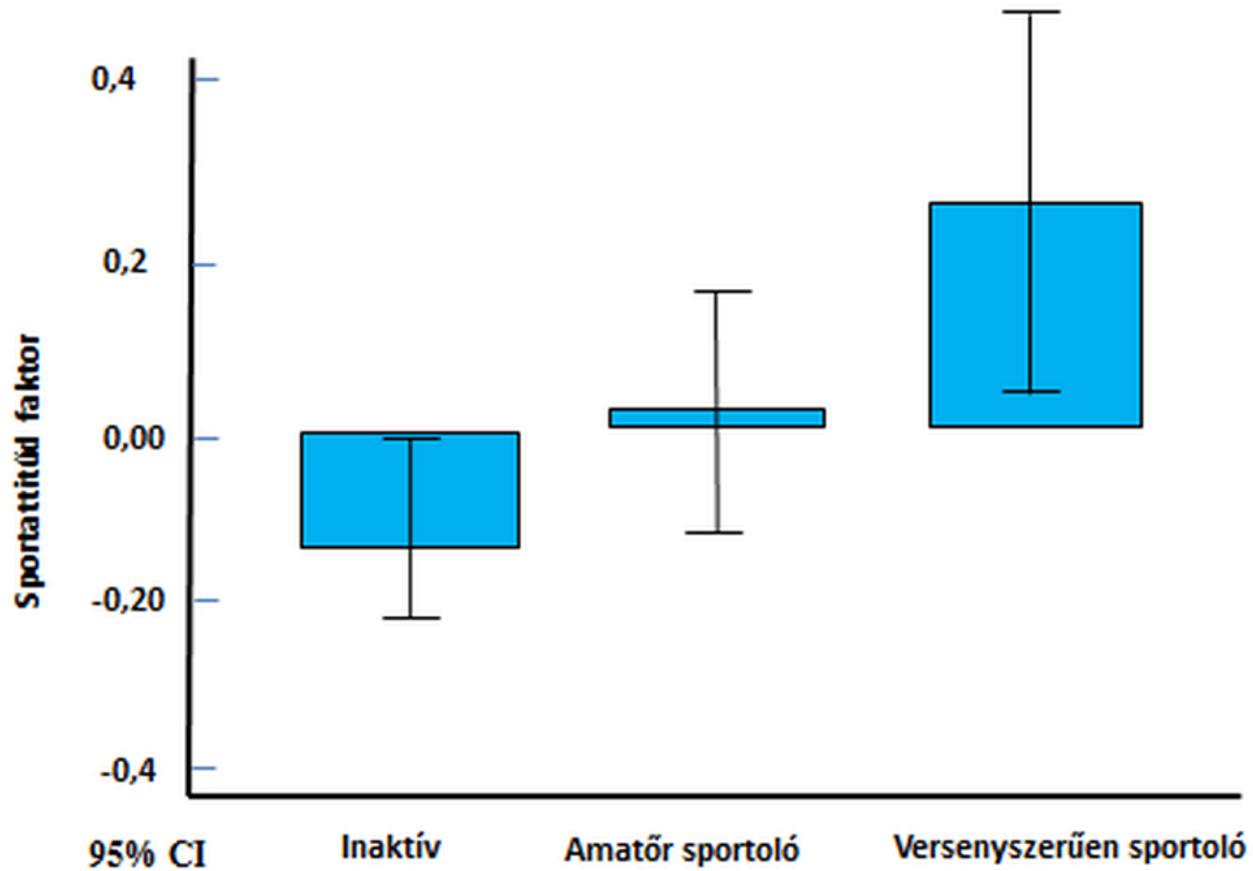
## Középiskolás leányok



# Self assessment of health status in school children



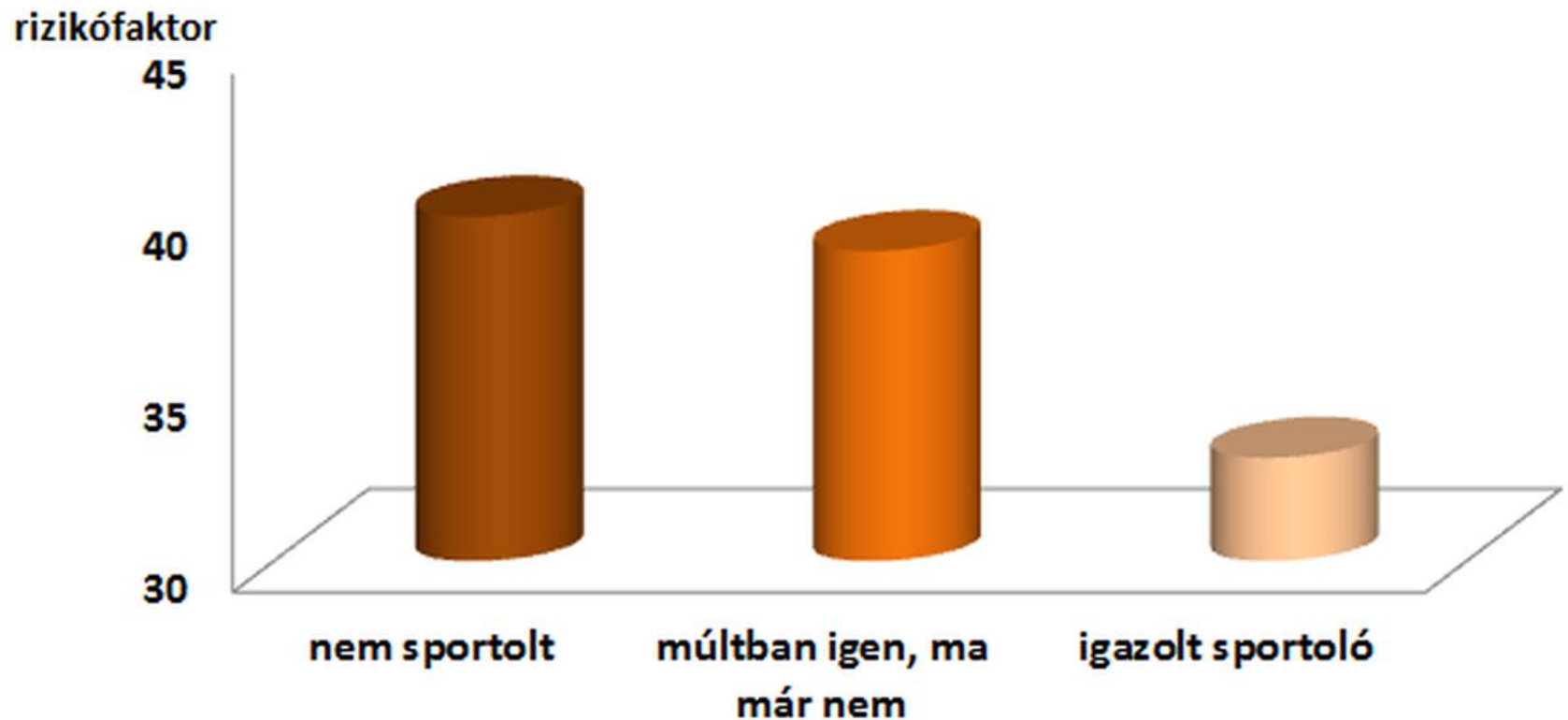
# Sport attitude factor (children and parents)



## 2. University students

# University students Combined risk factor (7)

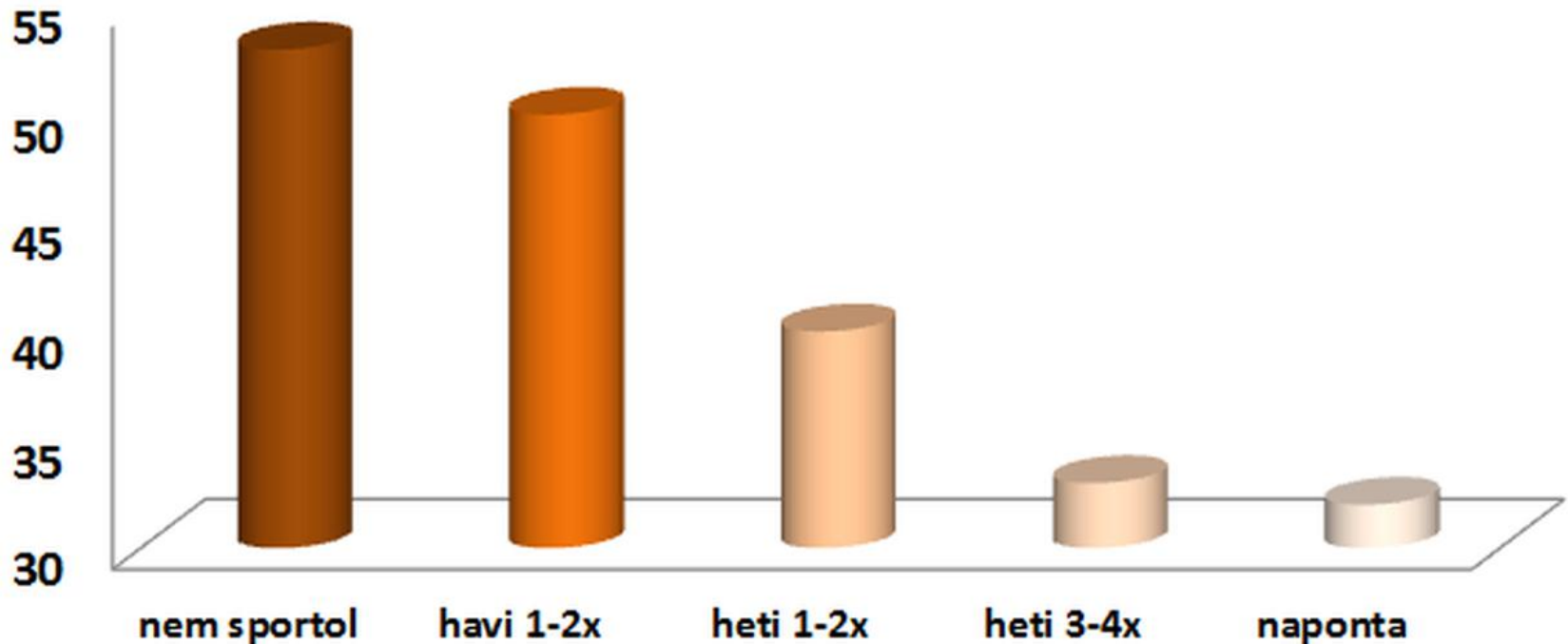
body weight, BP, smoking, inactivity, depression, nutrition, family background)



# University students Combined risk factor (7)

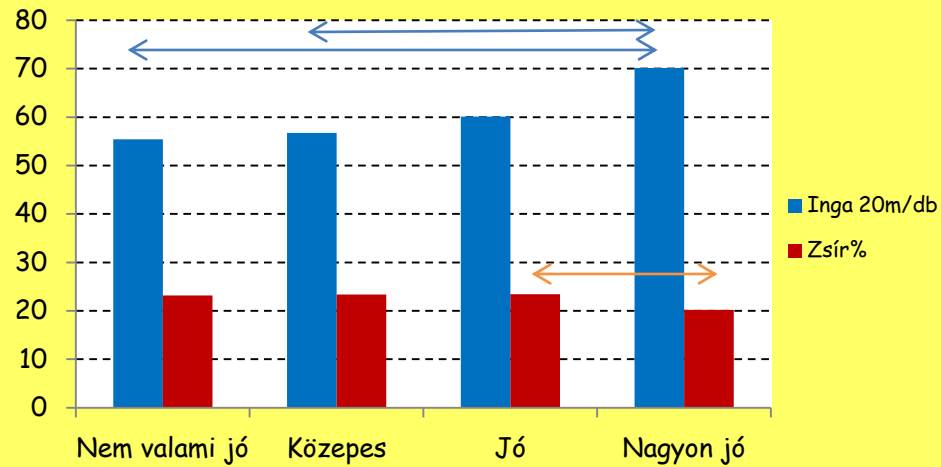
body weight, BP, smoking, inactivity, depression, nutrition, family background)

rizikófaktor

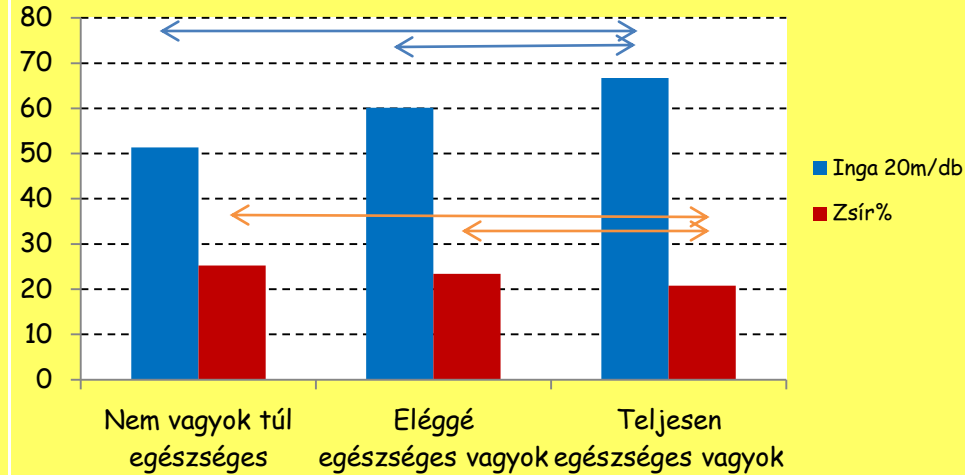


# Self assessment of well being and health, motoric probes, relative fat content in university students

Közérzet összefüggése a motoros próbával és a relatív zsírral



Az egészség megítélésének összefüggése a motoros próbával és a relatív zsírral

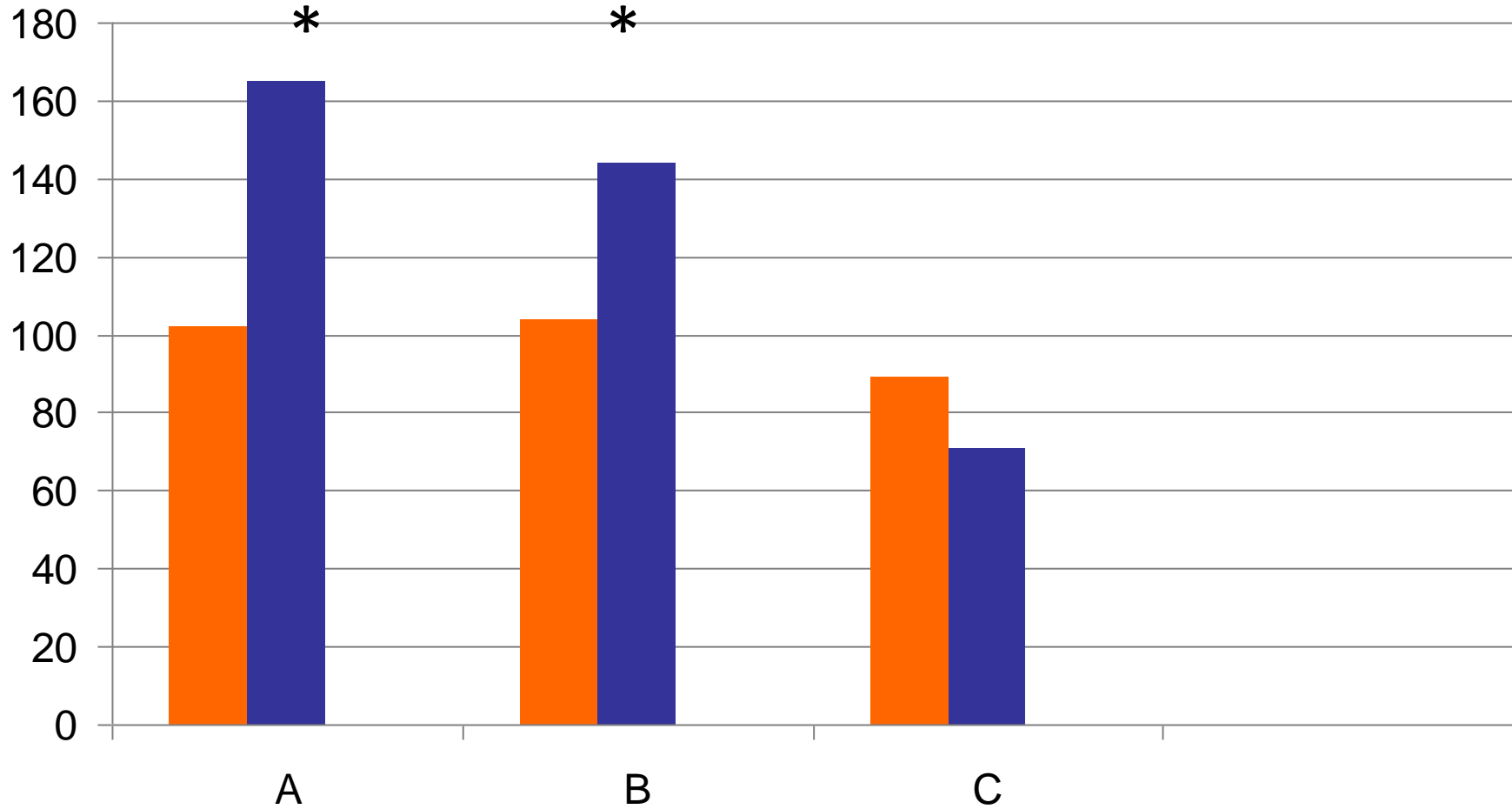


# 3. EIM outpatients

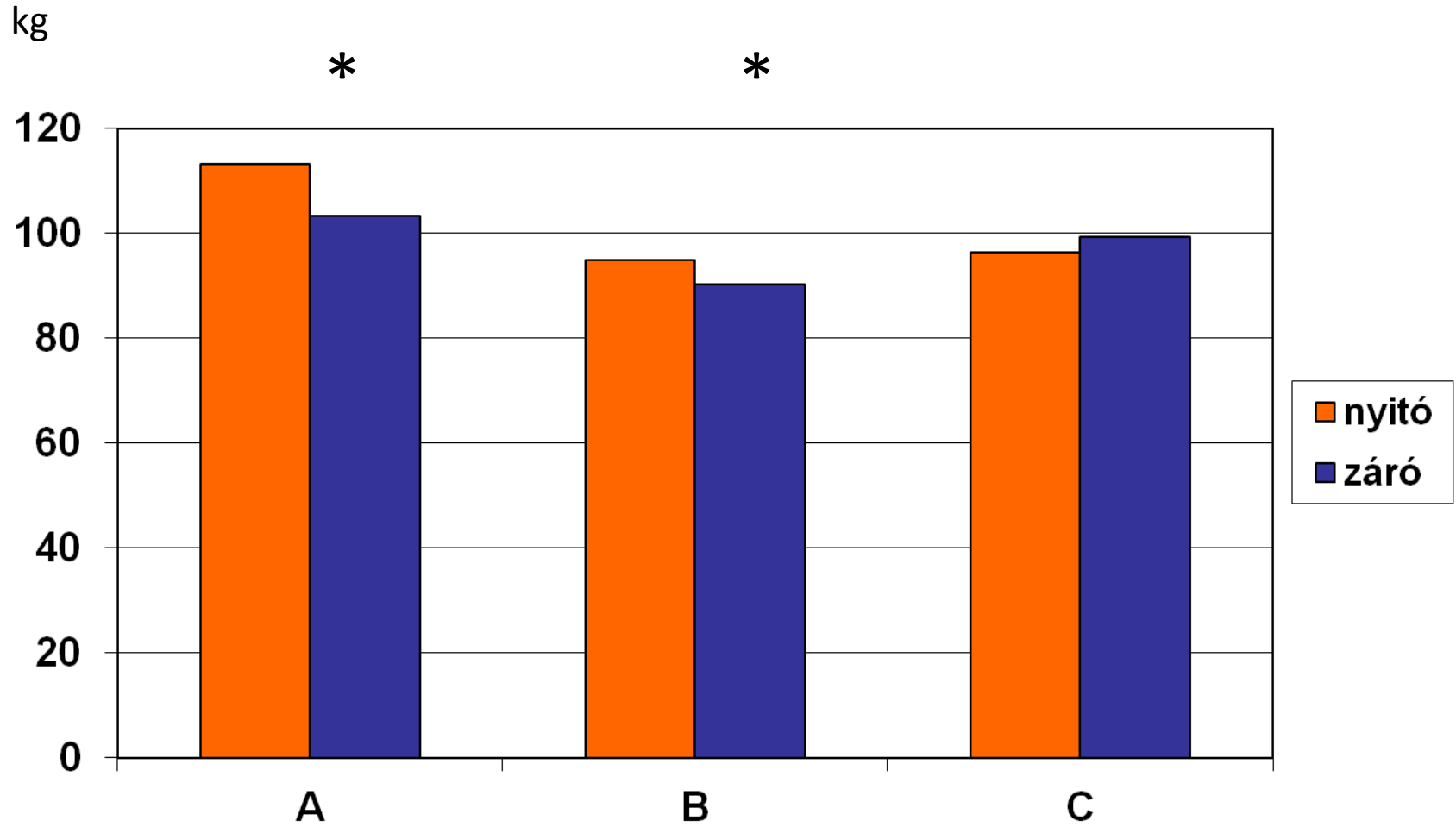
	<b>RA2 (%)</b>	<b>RA1 (%)</b>
performance	+ 62,2	+ 38,0
Body weight	- 8,7	- 5,0
cholesterine	- 15,6	-8,9
LDL	- 40,8	- 32,5
HDL	+ 19,5	+ 3,3
TRIGLICERID	- 23,9	- 23,3
Blood sugar	- 14,3	- 10,7
HR	- 9,3	- 4,2
Systolic BP	- 7,2	- 5,5
Diastolic BP	- 3,8	- 2,5

# Performance

watt

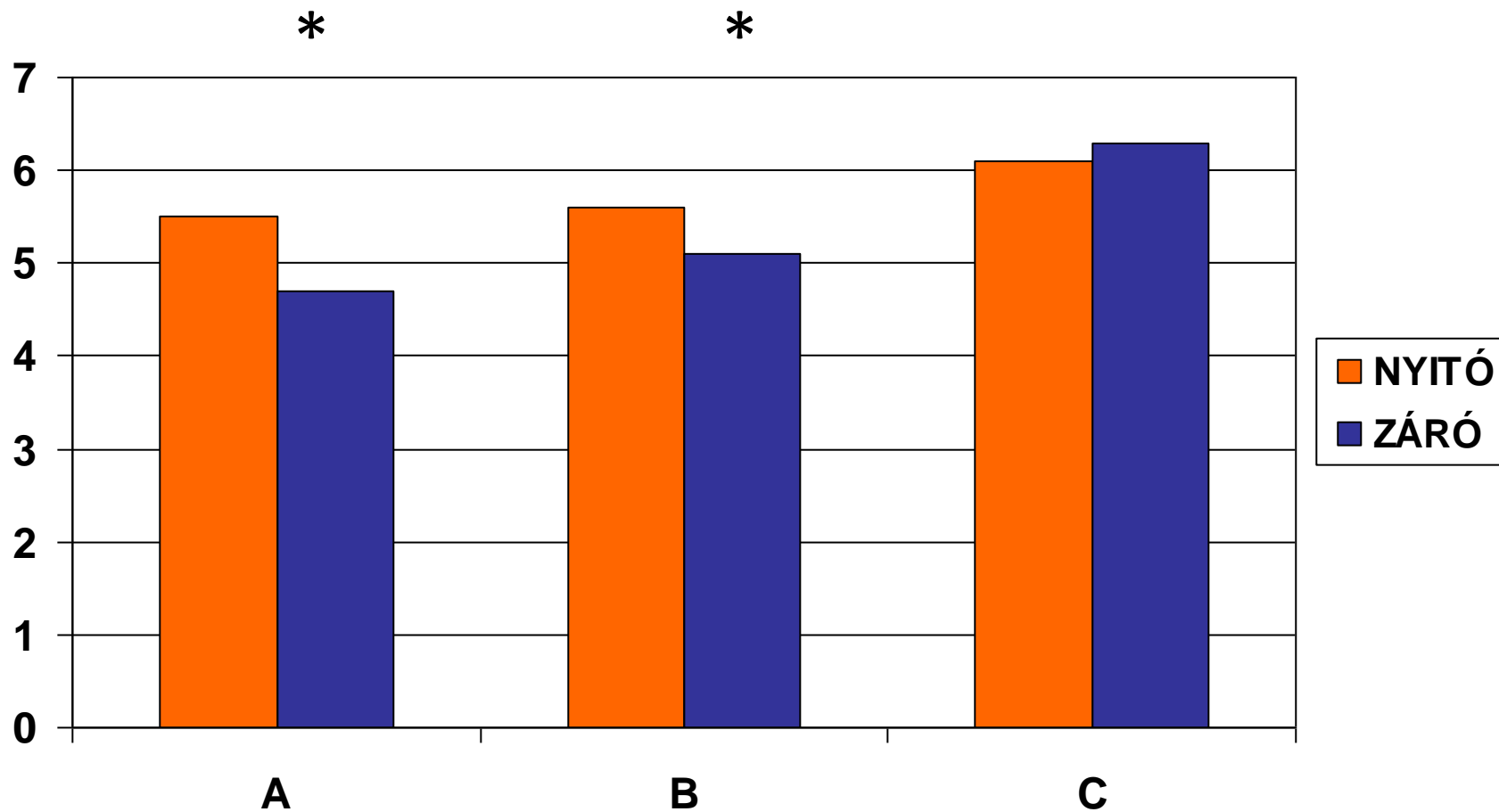


# Body weight



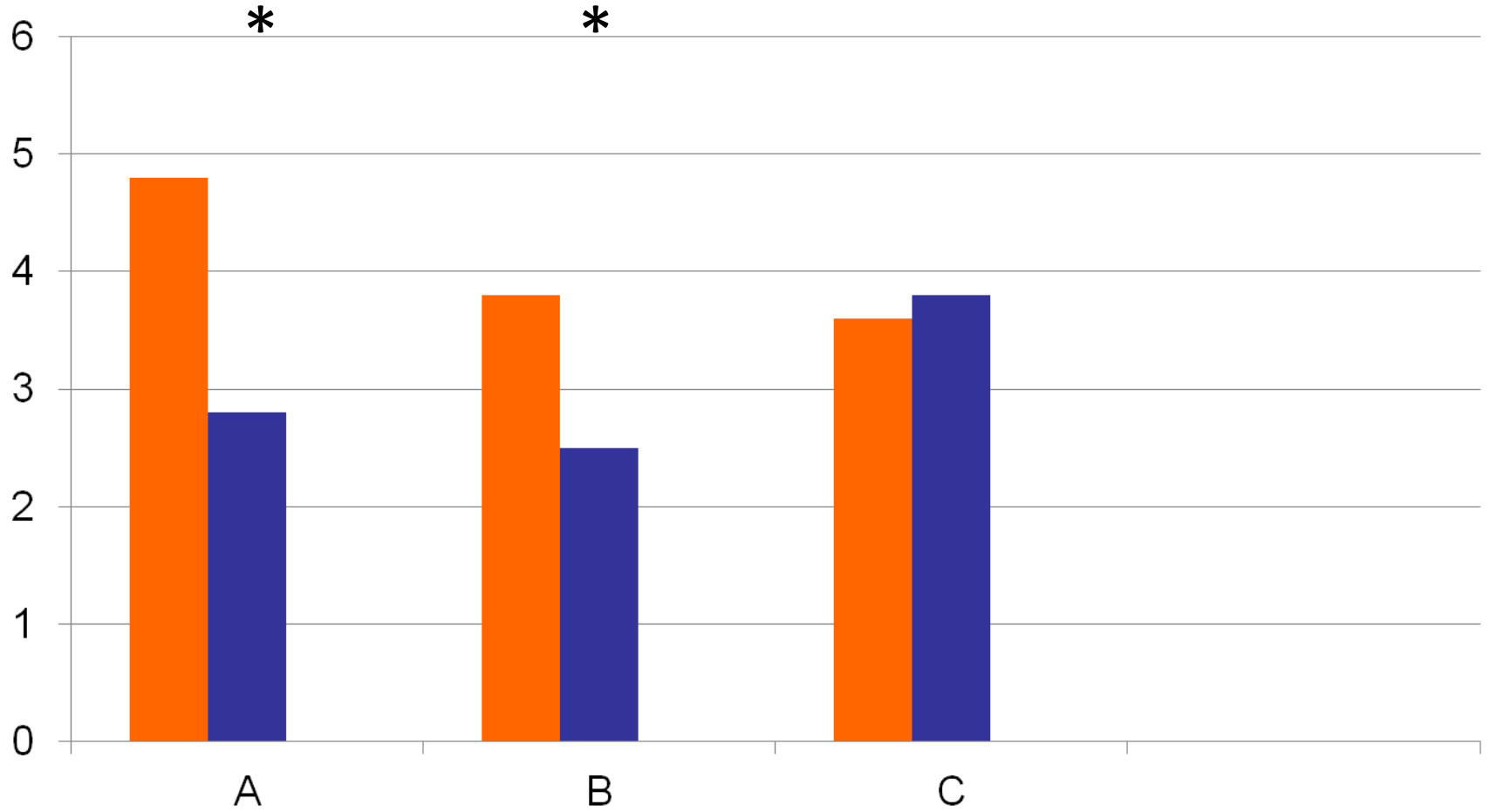
# Cholesterol

mmol/l



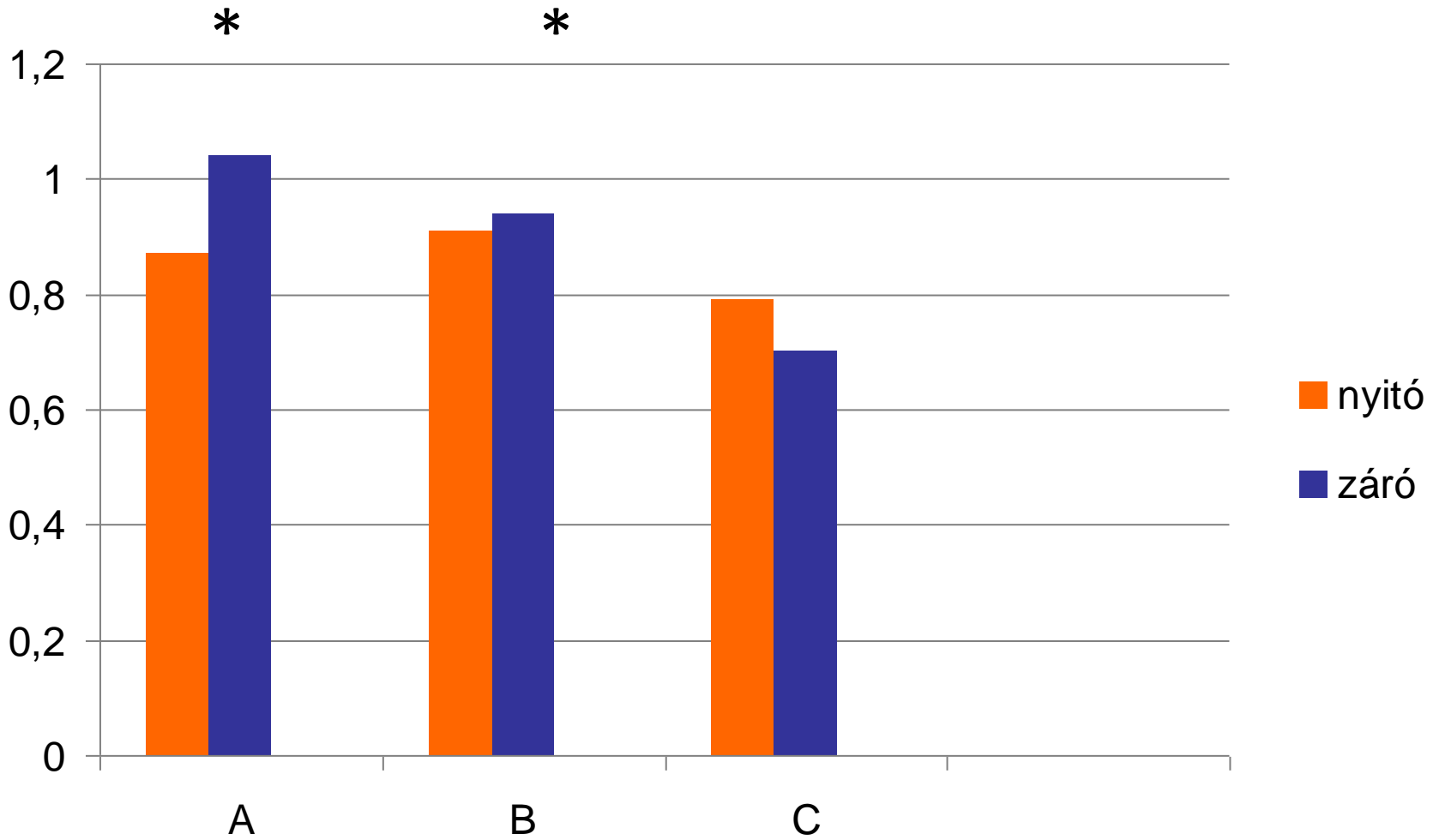
# LDL

mmol/l



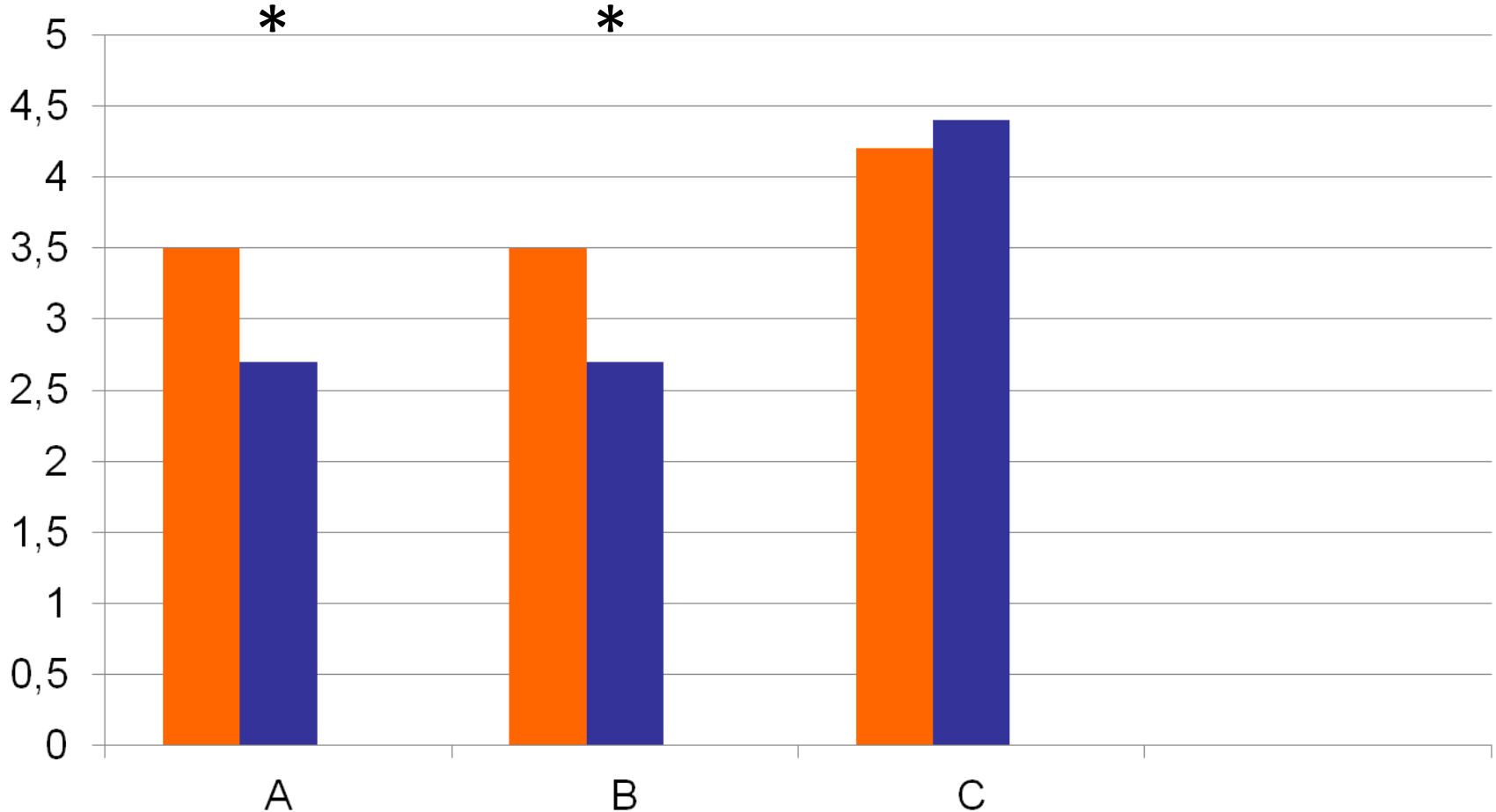
# HDL

mmol/l



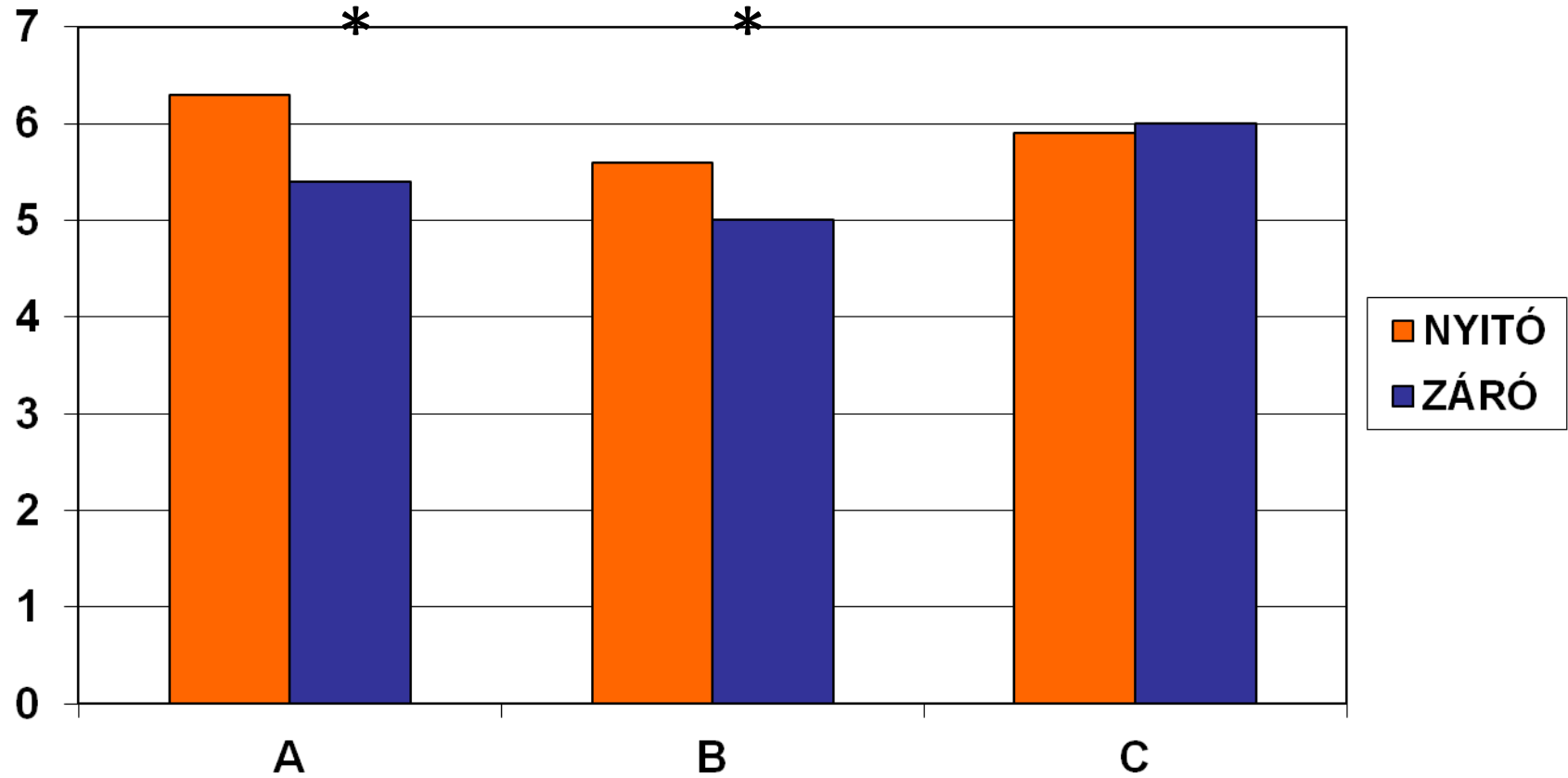
# TRIGLICERID

mmol/l



# Blood sugar

mmol/l



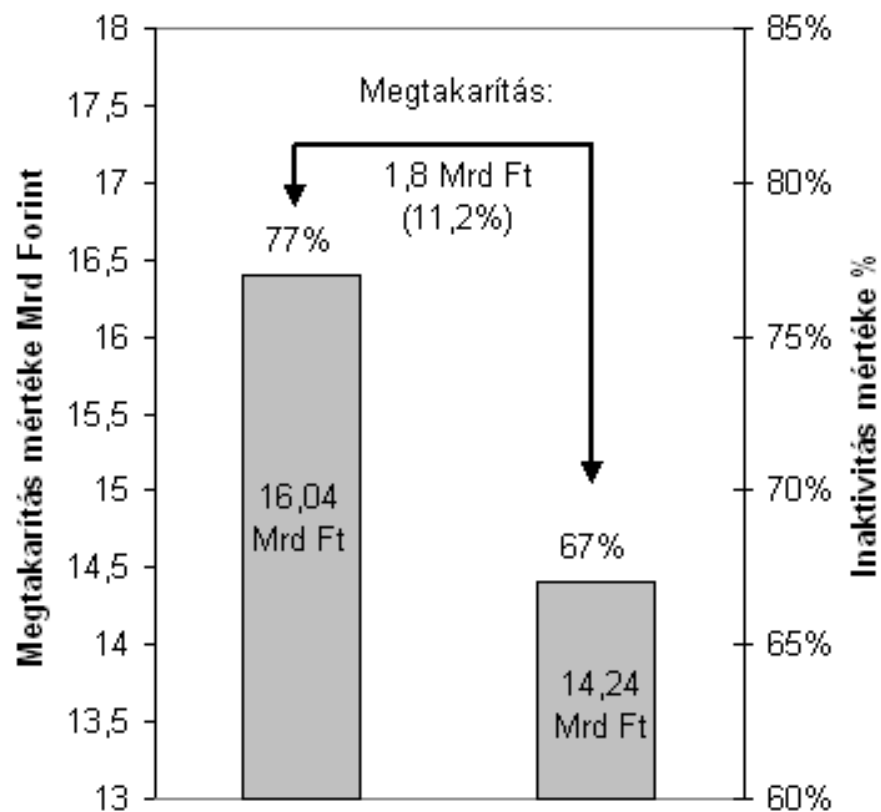
# Score $p < 0,05$

group	before	after
A	3,4	1,61
B	3,3	1,58
C	3,0	3,0

# 4. Economics

## Savings by reducing inactivity

10 % reduction – 60 million EUR savings in primary care



- Thank you for your attention!