

## Książka Streszczeń

### Redakcja

Jacek Wąsik Janusz Szopa















### Komitet naukowy

### **Przewodniczący**

dr hab. prof. AWF Janusz Szopa, Akademia Wychowania Fizycznego w Katowicach *Wiceprzewodniczący* 

dr hab. prof. AJD Jacek Wąsik, Akademia im. Jana Długosza w Częstochowie

prof. dr hab. Roman Maciej Kalina, AWFiS Gdańsk

prof. dr hab. Stanisław Sterkowicz, AWF Kraków

prof. Anatolij Tsos, Uniwersytet Lesi Ukrainki w Łucku, Ukraina

prof. Milada Krejčí, Wyższa Szkoła Wychowania Fizycznego i Sportu PALESTRA,

Praga, Czechy

prof dr hab. Krzysztof Konecki, Uniwersytet Łódzki w Łodzi

prof. dr hab. Wiesław Pilis, Akademia im. Jana Długosza w Częstochowie

dr hab. prof. AWF Lesław Kulmatycki, Akademia Wychowania Fizycznego we Wrocławiu

dr hab. prof. UŚ Anna Gomóła, Uniwersytet Śląski w Katowicach

dr hab. prof. AJD Eligiusz Małolepszy, Akademia im. Jana Długosza w Częstochowie

dr hab. prof. AWF Małgorzata Grabara, AWF Katowice

dr hab. prof. PO Zbigniew Borysiuk, Politechnika Opolska

dr hab. prof. UPS Klaudia Zuskova, Uniwersytet Pavla Safarika w Koszycach, Słowacja

dr hab. prof. nadz Natalija Bielikowa, Uniwersytet Lesi Ukrainki w Łucku, Ukraina

dr Stefan Balko, Jan Evangelista Purkyně Uniwersytet w Ústí nad Labem, Czechy

dr Alena Bukowa, Uniwersytet Pavla Safarika w Koszycach, Słowacja

dr Agata Horbacz, Uniwersytet Pavla Safarika w Koszycach, Słowacja

dr Michał Dziadkiewicz, Politechnika Częstochowska, Polska

### Komitet organizacyjny

#### <u>Przewodniczący</u>

dr hab. Jacek Wąsik, prof AJD Częstochowa

dr Michał Dziadkiewicz, PCz Częstochowa

dr Agnieszka Ulfik, AWF Katowice

dr Dorota Ortenburger, AJD Częstochowa

mgr Tomasz Góra, AJD Częstochowa

mgr Aleksandra Budzisz, AWF Katowice

mgr Agnieszki Kmiecik, AWF Katowice

mgr Weronika Gawrys, PCz Częstochowa

## Spis treści

mental health
Anatolii Tsos, Olga Andrijchuk, Nataliia Bielikova, Svitlana Indyka, Dorota Ortenburger, Jacek Wąsik6
<b>Zarys genezy sportów walki</b> Jacek Wąsik7
Co klasyczna joga indyjska oferuje współczesnemu człowiekowi ? Janusz Szopa7
<b>The effect of an extreme long-term physical load on runners health - a review</b> Martin Nosek, Jan Adamec, Dagmar Partlová, Štefan Balkó, Radek Zákon8
Health-related quality of life, physical activity and sedentary behavior of Ukrainian children and youth  Juliia Pavlova8
Lifestyle related risk factors of adults in towns of the Košice region Alena Buková, Agata Horbacz, Dana Dračková9
The effect of the application of dynamic and PNF stretching on explosive strenght abilities of the lower limbs in warm-up Hana Kabešová, Jitka Vaněčková, Nicole Tarantová, Josef Heidler, Barbora Šišáková, Jana Žikavská9
Influence of different light intensity on reaction time during physical activity Štefan Balkó, Samuel Repiar, Marek Jelínek10
Analysis of common techniques of different types of martial arts and yoga Serhii Tsymbaliuk11
Podwyższenie fizycznej aktywności dziewcząt 16-17 lat z wykorzystaniem fitnessu siłowego
Liudmiła Waszczuk, Olga Roda, Ołena Demianczuk, Nina Dedeluk, Switlana Kalytka, Wenera Krendielewa, Ninel Mackiewicz11
Application of karate breathing techniques as an alternative form of autogenic drainage for people with cystic fibrosis – comparative analysis of both techniques  Dariusz Mosler
<b>Wizerunek instruktora hatha jogi a jego otoczenie prawne</b> Michał Dziadkiewicz, Paweł Cichowski13
Fizjologiczne i fizyczne wymagania meczowe młodych polskich piłkarzy nożnych Karol Pilis13
Znaczenie ćwiczeń jogi dla jakości życia słuchaczy Uniwersytetu Trzeciego Wieku oraz osób chorych onkologicznie - badanie porównawcze Joanna Górna, Janusz Szopa14
Czy karate pomoże przygotować dziecko do nauki w szkole? Iwanna Bodnar

# The effect of an extreme long-term physical load on runners health - a review

# Martin Nosek<sup>1</sup>, Jan Adamec<sup>1</sup>, Dagmar Partlová<sup>2</sup>, Štefan Balkó<sup>1</sup>, Radek Zákon<sup>1</sup>

<sup>1</sup>Department of Physical Education and Sport, Jan Evangelista Purkyně University in Ústí nad Labem, email: martin.nosek@ujep.cz

<sup>2</sup>Department of Clinical Biochemistry, Masaryk Hospital in Ústí nad Labem, email: dagmar.partlova@kzcr.eu

**Objective:** An article contains a knowledge on the effect of an extreme long-term physical load on runners health. It is mainly focused on an influence of long-term physical load on a heart function. The main thought is coming out from a fact which is not unambiguously proven effect of long-term physical load on a heart function and inflammation biomarkers such as troponin T (cTnT), troponin I (cTnI), creatine kinase (CK) and C-reactive protein (CRP). These types of biomarkers are described as biomarkers which show myocardial necrosis. There are some cases where myocardial necrosis has overgrown into heart attack. The aim of this review is a description of this issue and to work with all available information about this issue.

**Methods:** The data were collected by using PubMed and Research gate databases. The articles were chosen according to their importance and relevance.

**Results:** There are some cases in literature which describe that runners with extreme physical load during ultramarathons are showing an increase of heart biomarkers. But the studies also show that the level of these increased biomarkers is getting in normal level within 24-48 hours.

**Conclussion:** It is proved, that an extreme long-term physical load influences the increase of inflammation biomarkers. But it was not proved, that the ultramarathons runners have had permanent damage on their heart function.

**Keywords:** exercite, ultramaraton, cardiovascular, markers, troponin

## Health-related quality of life, physical activity and sedentary behavior of Ukrainian children and youth

### **Iuliia Pavlova**

Lviv State University of Physical Culture, Kostiushko Str., 11, Lviv, Ukraine, 79000, E-mail: pavlova.j.o@gmail.com

**Introduction**: The quality of life is an inseparable whole with human health, it covers a physical, mental and social being, takes into account person's beliefs, expectations and worldviews. The data about quality of life of practically healthy persons are need for determining the effectiveness of health promoting programs and predicting health in the near future.

The aim of the investigation was to explore the changes in physical activity level and assessment of the quality of life during growth and maturation.

**Material and Methods:** A total 406 school students (50.7% female) participated in the study. This group was interviewed twice – first time in the age 11–12 and then in the age 15–16. Health-related quality of life was measured using PedsQL questionnaire. Total scores were calculated to provide a general measure of Physical Functioning, Social Functioning, Emotional Functioning, and School Functioning domain. Children's and youth's physical activity levels were evaluated with Physical Activity Questionnaire for Older Children and Adolescents. For statistical procedures was used Origin Pro 8.6.

**Results**: For the three life quality domains (Physical Functioning, Emotional Functioning, School Functioning), the higher scores were observed in the younger age (11–12 years; p < 0.05), than in the age 15–16. Sex has a significant effect on Physical Functioning and Emotional Functioning domain of life quality. The higher scores were observed for males. Values of Physical Functioning for 11–12 years old participants were 86.5 (12.1) and 89.3 (10.6) (females and males respectively), for 15–16 years old – 82.9 (15.1) and 86.5 (15.6) (females and males respectively). For 11-12-year-old females, the value of the Emotional Functioning was 75.9 (12.1) points, for females aged 15–16 years – 69.4 (16.9) points; for males in the age 11–12 – 81.7 (13.9) points, for males in the age 15–16 – 76.1  $\pm$  17.5 points. The physical activity level decreased with growth and maturation (p < 0.01). A sharp reducing of physical activity level was observed for females. In the age 15–16 years, there was in 1.5 times less females with high physical activity level than in the age 11–12.

**Conclusions:** The quality of life and physical activity level decreased with growth and maturation, especially negative changes were observed for physical activity level of Ukrainian females.

**Keywords**: physical activity, quality of life, health, students.

# Lifestyle related risk factors of adults in towns of the Košice region Alena Buková, Agata Horbacz, Dana Dračková

Pavol Jozef Safarik University in Kosice, Institute of Physical Education and Sport Kosice, Slovak republic

#### **ABSTRACT**

The presented work is part of a more extensive study monitoring the lifestyle and physical activity of the adult population of towns and villages in Eastern Slovakia. In this study, we focused on the selected risk factors of people living in the towns and cities of the Košice region. As many as 646 people from 12 towns, aged 19 to 63, participated in the monitoring. A non-standardized questionnaire was used to survey the frequency of doing sports by the respondents involved in the study, together with the occurrence of most common risk factors in their lifestyle - diet, alcohol consumption and smoking. The results showed a large variance between the individual cities in the frequency of doing sports, but also among the inhabitants of the particular urban areas themselves. In terms of eating habits, adults in the Košice region reported having 3 to 4 meals a day. A gratifying finding is that no excessive alcohol intake was found among the respondents.

KEY WORDS: lifestyle, diet, alcohol, smoking, adults

# The effect of the application of dynamic and PNF stretching on explosive strenght abilities of the lower limbs in warm-up

Hana Kabešová, Jitka Vaněčková, Nicole Tarantová, Josef Heidler, Barbora Šišáková, Jana Žikavská

<sup>1</sup>Department of Physical Education and Sport, Faculty of Education, Jan Evangelista Purkyně University in Ústí nad Labem, Czech Republic, email: <a href="mailto:hana.kabesova@ujep.cz">hana.kabesova@ujep.cz</a>

**Introduction:** This article deals with the issue of the stretching effect on the level of explosive strenght abilities of the lower limbs in warm-up. The issue of the stretching application before performance (during warm-up) has been a highly discussed topic in secondary literature in the last several years. We know from a large amount of scientific studies (e.g. Gelen, 2010, Needham, Morse, 2009, Pearce, 2008) that dynamic stretching has a positive effect on most of the sport