

Book Review



**Bendikova, E. (2017): Theory of Health, Movement and Lifestyle of Human Beings. Debrecen: Debrecen University.**

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Theory of health, Movement and lifestyle of human was published as a collection of studies by Debrecen University Press in 2017. The author of this work is Dr. Elena Bendikova, Ph.D., a faculty professor at the Institute of Physical Education at the University of Bekes. The book is an output of the grant research task under the project: VEGA 1/0242/17 („Physical Activity as Prevention of the Functional Musculoskeletal Disorders in Secondary School Students”).

The timeliness of the book lies in the fact that it focuses on human health and movement. Man's technical achievements have been a result of development to make his life easier and more comfortable. The XXI century has brought never-hoped technical advances, new technical solutions, an unlimited flow of information and an enviable quality of life and comfort for many people. However, in addition to the positive effects of motorization and urbanization, we also face serious problems such as physical inactivity, a sedentary lifestyle, which can lead to musculoskeletal deformations, cardiovascular disease, obesity, etc. More and more people realize that it is not only earthly goods that have a price. The most expensive and most valuable asset to gain and retain is health.

One of the most important messages of the book is that physical activity and sport in the urbanized, civilized and advanced world has become, from a pastime of a few, a necessity for many. Hence, if we want to keep our health, regular exercise is one of the most important prerequisites to it. Not only in Slovakia, where the book was written, but in more and more countries, there is growing awareness that free time is a very

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important and valuable part of life. The goal of spending leisure time is increasingly seen as an opportunity for improving the quality of life, preventive action and joy.

The message of the book can help the reader to this end, be it a specialist in the topic or simply a layperson interested in the subject. There is vast literature and specialised books dealing with regular exercise and the positive health effects of sports or the role of sport in lifestyle. This book analyses and interprets the threefold unity of health, movement and lifestyle, factors that play an important role in health protection, reflecting on their complexities. The book provides theoretical and practical knowledge of health, sport and prevention topics that can help shape a healthy lifestyle or preventive approach.

The book consists of 8 chapters. In the Foreword (Preface), the author gives a brief glimpse into the main content elements of the book and its context. It draws attention to the fact that movement is part of human existence, that is, it is a basic necessity that accompanies all our life. It also underlines the fact that ancient Greeks considered exercise to be important as kalocagathy was based on the idea of the unity of body and soul.

In Chapter 1 (Characteristics of Primary terms), the author of the book defines the most important concepts that make it easy for the reader to understand and utilise the book. In an alphabetical order from anamnesis to the weakening of internal organs, it presents the meanings of interesting concepts such as disability, overweight, handicap, motivation, immunity, physical performance, rehabilitation, risk factor, and sensitive period of development. In addition to the concepts, the "sensitive period of development of movement-kills" also describes the so-called recommended or suggested age ranges of development of various physical and coordination skills. Considering sensitive periods is an important guiding principle for all professionals who are engaged in the development of children's movement (nursing teacher, teacher, teacher, special educator, physiotherapist, trainer, etc.).

Chapter 2 (Developmental periods of Human Life) describes the concept and the periods of ontogenesis. These stages of development (from the New-born period to the period of old age) are presented along physical condition movement and social and psychological development. In this chapter, one can read the detailed explanations of the structure of personality and health. The definition of personality, temperament, and the theoretical foundations of these are presented. The oldest personality psychology theories are presented. It deals with Jung's personality typology, extroverted and introverted personality traits and the well-known melancholic, choleric, phlegmatic and sanguine division. This chapter reflects on researches that report the positive effects of regular sports. These studies have shown that the inactive lifestyle is twice or more times as likely to be a risk factor for cardiovascular disease as it is in the case of those who do regular exercise. It also reports on a study that found a significant correlation between the frequency of stress and the incidence of myocardial infarction. It also demonstrated

that depression positively correlates with coronary artery atherosclerosis and sudden coronary death. These researches are a good basis to justify the concept of "motion medication" which claims that regular physical activity is one of the simplest and most cost-effective prevention methods.

The third major chapter (Health) includes the conceptual definition of health, its historical review, the review of health promotion documents and complex health models that help us understand and approach health in a holistic way. It ranges from the WHO Health Definition of 1946 to the concepts of authors such as Dubos, Parson, Zikmund, Seedhouse, Lewiski, Dunovsky, Kovac, or the holistic health theory of Nordenfelt. Following the theoretical approach and conceptual clarification, it presents the results of researches that prove the effects of health-damaging or protective factors. The author draws attention to the fact that we can find a relationship between lifestyle factors and lifestyle disease. Among the health-damaging behaviours, smoking, unhealthy eating habits, alcoholism, stress, obesity and hypokinesia are mentioned and it is pointed out that there is evidence that they are risk factors for cardiovascular problems, cancerous diseases, diabetes, mental illnesses and injuries. In a tabular form it presents the most frequent causes of deaths in EU-27. Interestingly, Slovakia has less favourable indicators for cardiovascular diseases than Hungary. However, with regard to various types of cancer or respiratory disease Hungary's data is worse. A lengthy section deals with documents about health promotion. In this section one can read about international conferences, declarations, meetings, and policies and strategies related to health promotion. The health and lifestyle subchapter highlights the dominant elements of the quality of life (QOL). The author notes that life satisfaction during adolescent age is strongly influenced by life experience and relationships, especially by family relationships as well as health status.

In this chapter, physical activity and recreational activities are also mentioned that play an important role in maintaining health. It analyses Slovak and other international literature recommendations that prescribe the quantity and quality of the daily recommended motion activity for different age groups (intensity of movement). These orienting values can help us to establish our daily need for exercise and make it part of our way of life. The motivation for it is also given by the author, as she lists the health benefits of physical activity. Then the chapter elaborates on leisure and recreational activities) their role and significance in the preservation of health.

The chapter on health and regimen deals with the role and significance of nutrition. It explains that obesity and overweight is a growing problem worldwide; affecting not only the adult population but the prevalence among children is also increasing. It draws attention to the fact that 22 million children in the EU are overweight. More than 5 million are obese and it is getting worse: a yearly increase by 400,000 cases is expected. In the fight against obesity, according to international literature, only the Swedes showed themselves to be able to reduce obesity among the general population (exercise with incentive programs and nutrition with increased fruit and vegetable intake). The

Health and biorhythms subchapter presents the various time periods of the day and the activity levels of our body and organs. A diagram illustrates the 10 biological clocks of body organs in the jin-jang system. In the Health and addictive substances subchapter it describes the terminology of addiction and then deals with the health effects of drugs, alcohol and smoking and their symptomatic signs.

Chapter 4 (Physical activity, adaptation of organism and lifestyle disease) describes the effects of regular physical activity on the cardiovascular, respiratory, musculoskeletal, hormonal and nervous systems. It also deals with the reaction and adaptation of the body to sport load. The Weakening of the musculoskeletal system subsection presents the development of the bone system with the spine and vertebrae and the correct posture is depicted. It describes the most common deformities of the spine and presents its characteristics. This is very important information and knowledge in the prevention of the development of various deformities. The Cardiovascular weakening section details cardiovascular diseases, myocardial infarction, ischemic heart disease, among others and names the inactive lifestyle as a major risk factor. The Metabolic weakening subchapter draws attention to metabolic disorders, among which obesity and type 1 and type 2 diabetes are very common in Hungary. The role of regular physical activity is decisive in the prevention of both diseases. Among the diseases that are the result of the weakening of the respiratory system, asthma and rhinitis allergica deserves special attention because the prevalence of them among children is increasing. The Nervous and mental weakening sub-chapter describes the most commonly occurring illnesses such as drug addiction, gambling, workaholism, anorexia nervosa, bulimia. Exercise programs play a crucial role in the therapy of these conditions.

In Chapter 5 (Substance, Formation and Importance of Movement Programme), the author details the primary types and principles of exercises and also exercises for physical weakness and disease prevention. Physical Education (HPE) is a process of special and complex content in health care. Its tasks are to regulate physical scope, to reduce weakness, furthermore, to improve health and overall functioning. They are an essential part of HPE's specific content and physical components for people with health impairments. The positive physiological effects of the exercises can be achieved when they become part of a lifelong process of developing muscle and movement. It highlights that didactic aspects (regularity, efficiency, permanence, accuracy and rationality, order of the individual exercises) have to be respected. It details releasing exercises, stretching exercises, strengthening exercises focusing on the importance and principles of them. There are sections about the Number of repetitions and Tempo and rhythm during exercises. The Loading in teaching exercise section also talks about proper execution. Through images, it presents the basic positions during exercise and emphasizes the importance of respiration during exercise. The WHO recommendations of physical activity program and its concept subsection describe the recommended frequency specifying at least three times a week (20 mins) or a maximum of 5 occasions per week

(30 minutes lower loading intensity). In both cases, it recommends at least 2 strength training sessions aimed at developing strength.

In order to achieve the effectiveness of training the specific zones in which exercise can be carried out are the following: the fat burning zone where the intensity of the exercise is at 60-70% of VO<sub>2</sub>max and is 30 to 60 minutes long. It is a medium-intensity load that has a positive effect on the energy output of the cardiovascular and respiratory systems as well as fat reserves. The next zone is a higher intensity load, with a 10 to 30-minute duration of intensity greater than 70-80% of VO<sub>2</sub>max, which particularly affects aerobic performance. The ability to persist, improves the lung's capacity to deliver oxygen to the blood and remove CO<sub>2</sub> from the blood. This zone is capable of further enhancing the performance and functional capacity of the activity. In the most intense zone, the intensity is high and reaches 80-90% and VO<sub>2</sub>max is at least 5 to 10 minutes. The author presents Basal metabolic rate calculations for men and women. The complexity of energy use and intensity increases the efficiency of exercise.

Chapter 6 (Psychohygiene of Health) defines the concept of mental hygiene. It sets out its general purposes which are mental balance, mental health and a healthy lifestyle, at all stages of life. Mental hygiene focuses on the possibilities of self-regulation. It is aimed at individuality and active conversion of its environment. The emphasis is on the psychological balance (regulation, self-education, thinking hygiene, ideas, attention etc.). Conflict and stress cannot be avoided in life, but it is important to create methods (mindfulness, yoga, physical activities, etc.) with the help of which it can be managed or avoided. The balance between personality and the environment for mental health is very important. Mental health is a state in which mental processes are optimally managed. It reflects the external reality correctly and responds promptly to every suggestion and ensures satisfaction in one's work. Mental health is a fundamental value of life. WHO (2002) defines mental health as a state of human well-being, in which one is able to cope with stress, is able to work, and productively contribute to the society in which one lives. In the first subchapter of the chapter stressors are described by the author. Generally, there are several categories of stressors depending on the mechanism of action: physical, chemical, biological and stressors disrupting cardiovascular and metabolic homeostasis. In the next subsection the causes are explained, the symptoms of fatigue are listed and their measurement methods are presented in a table. As a solution, it provides guidance to active and passive regeneration. The detailed description of the tasks can be used as an aid. In the Education towards health and prevention subchapter, the professional and purposeful development tasks of education and the internal and external conditions of balanced development and positive socialization are presented. Education is proactive action, personality development, a current and historical phenomenon that changes with the development of society in the light of the goals and needs of society.

In Chapter 7 (Educational Diagnostics), pedagogical diagnostics are discussed by presenting and analysing the types of available diagnostics. Diagnostics is a scientific

endeavour that deals with methods of detecting health (diseases and symptoms). This includes knowledge of observation and observation, examination methods (medical diagnostics), the examination of symptoms (semiotics) and the specifics and process of diagnosis (diagnosis methods). In the first subsection, the methodology of measuring somatic indicators such as BMI (Body Mass Index), WHR (Waist to Hip Ratio) and Measuring thickness of skinfolds (SF) is dealt with. It provides detailed information required for the application of all methods and assists the presentation of the last SF method with images. These measurements can be used by all PE teachers and one can use the table to categorize the data. The next subchapter describes the use and necessity of diagnostics of the musculoskeletal system and it recommends working with doctors (professionals) or physiotherapists during the diagnosis. When assessing posture, attention should be paid to the variety of symptoms of posture and breathing that may indicate surgical or structural malfunctions. In the next subchapter the functional tests of the cardiovascular system are followed by measurement of pulse frequency. There is a direct connection between pulse frequency (PF) speed and load intensity. Therefore, according to the PF values, the load can be gradually increased by the practitioner during the various training units.

FIRST AID and Traumatology is the last chapter (Chapter 8). The author categorizes the injuries. These are the order of care and the manner and availability of the call for help. The chapter presents details of both the injured and the assisting person as well as a description of the laws on the failure to provide assistance (Article 177 (1) of the Criminal Code, Section 11 (12) of the Act on Health Care).

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