

# Handball as a Way of Kinesiology Activity

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## Abstract

Insufficient activity is a global problem with far-reaching and very expensive consequences. Handball is a physical activity that offers numerous benefits both physically and psychologically. An available, affordable and popular activity, the implementation of which we encourage the recommendations for participation in physical activity and enables positive effects on the subjective well-being of those who practice handball. There are personnel and traditional reasons for this in Croatia, as well as the level of development of handball as a complex kinesiology activity.

**Keywords:** Physical activity; Subjective wellbeing; Children's activity; Team sport

## Introduction

Preschool institutions, schools, local self-government, and relevant ministries should take the initiative and responsibility for making kinesiology content available to children. Participation in kinesiology activities from an early age encourages the creation of positive habits and attitudes toward movement, physical activities, and active ways of spending free time [1]. Regular kinesiological activity also contributes to better academic efficiency and can help school-aged children improve their academic potential and performance. Because of these facts, schools should provide various opportunities for kinesiological activity during the day [2]. There are generally known and determined factors that affect a higher risk of cardiovascular diseases that cause earlier mortality in the population: smoking, lack of physical activity, high blood pressure, excess body weight, and others [3]. The most common cause of death in 2021 was diseases of the circulatory system (36.97%), 13.64% of the deceased population died from COVID-19 [4]. When talking about the youngest, reduced movement is a health risk in adulthood [5]. Certain tendencies and habits are acquired in childhood, as is the tendency to be overweight. Children who are overweight have a high chance of struggling with this problem in adulthood. Metabolic disorders caused by obesity and inactivity in children are increasingly common and are also transmitted to adulthood [6]. Most risk factors are acquired in childhood and adolescence. This is why starting preventive kinesiology programs as early as possible is extremely important.

Kinesiology activities are organized from kindergarten to create positive and healthy life habits that will contribute to the quality of life and reduce risk factors. During childhood, kinesiological activity is extremely important because it affects physical and psychological development, as well as the creation of healthy lifestyle habits. Children are happy to choose kinesiology activities as a way of spending their free time, and a regular increase in the choice of such activities can be observed by the end of the third grade [7]. The World Health Organization states in its documents the necessity of kinesiology activity of medium intensity for children and young people. Such activity should be daily with a minimum duration of 60 minutes. They also state that in the world 23% of adults and even 81% of adolescents do not meet the recommendations for participation in physical activity [8]. The goal that is sought to be achieved through kinesiology activities is defined as improving health, maintaining various motor skills and abilities at an adequate level, and preventing premature reduction of anthropological characteristics [9,10]. The obtained results point to a possible conclusion that the tendency of preference for play, kinesiological activities, and both play and kinesiological

activities is partly associated with children's chronological age, although this regularity is somewhat disrupted [11]. Handball is a team sport, which by its structure belongs to poly-structural, complex activities characterized by several different, cyclic and acyclic, motor structures that individuals perform in cooperation with their team members [12]. The specificity of handball is manifested in the participation of the entire motor system, thus encouraging the development of all muscle groups in the body while improving motor skills. Many various motor structures that appear during training and playing handball ensure the even development of the motor system and muscle groups. From a biological point of view, handball is a perfect kinesiology activity for children because it does not neglect any topological segment and does not single out a single muscle group in the body [13].

Various manipulations of the ball require strong coordination skills as well as high flexibility and agility with the teamwork of all teammates. Handball is recognized as a physically demanding activity characterized by frequent intense contact, as well as rapid changes in speed, direction and rhythm of movement. This dynamic kinesiological activity engages multiple muscle groups at a high intensity, resulting in a vigorous and challenging physical experience. Like other kinesiology activities, handball also contributes to the creation of healthy and positive life habits in addition to the benefits that come with participation in team sports. Handball is an almost ideal sport for the development of young people because it equally affects and develops all a person's psychomotor, intellectual and social qualities [14]. It requires different motor movements and thus equally activates all the muscles of the trunk and extremities. It offers the possibility of developing a team spirit, a tendency to teamwork and strengthening the competencies of initiative and entrepreneurship. Through long-term handball training, it is possible to achieve uniform development of all muscle groups, improve motor skills, develop team spirit and strengthen collaborative competencies [13]. Many different motor structures that occur during training and playing handball ensure the even development of the motor system and muscle groups. From a biological point of view, handball is a perfect kinesiology activity for the younger population because it does not neglect any topological segment and does not single out a single muscle group in the organism [14].

The ideal age to start training would be the age of ten and having previously attended a mini handball school. This is the age when there is growth in height and weight gain. Larger muscle groups usually develop before smaller ones and cardiorespiratory capacity increases as well as aerobic capacity, which ultimately leads to good load tolerance. Morphological differences between boys and girls are visible, boys have a larger amount of muscle tissue. In terms of motor skills, girls differ with a higher degree of flexibility and balance, and boys with more pronounced strength, endurance and speed. At this age, it is necessary to work intensively on coordination, precision, balance, agility and flexibility, considering that they are determined by genetics and the influence

on them is limited, it is necessary to develop them at an early age [12]. In a study conducted by Costigan et al. [15] that examined the relationship between physical activity intensity and subjective well-being in adolescents, it was observed that moderate and mild physical activity did not yield significant effects on positive affect levels. However, intense physical activity, such as playing handball, exhibited a positive association with subjective well-being. The significant positive difference of all constructs of subjective well-being in the research conducted by Lujic [16] was also confirmed in favor of adolescent handball players and those who are not involved in physical activity. This finding suggests that engaging in high-intensity physical activity may have a more pronounced impact on subjective well-being compared to activities with lower intensity levels.

## References

1. Reigal Garrido R, Videra A, Gil J (2014) Physical exercise, general self-efficacy and life satisfaction in adolescence. *Rev Int Med Cienc Act Fis Deporte* 14(55): 5611-576.
2. Rodriguez-Ayllon M, Cadenas-Sánchez C, Estévez-López F, Muñoz N, Mora-Gonzalez J, et al. (2019) Role of physical activity and sedentary behavior in the mental health of preschoolers, children and adolescents: A systematic review and meta-analysis. *Sports Medicine* 49(9): 1383-1410.
3. Grošić V, Filipčić I (2019) Physical activity in improving physical health. *Medicus* 2: 197-203.
4. Erceg M, Knežević Miler A (2022) Report on deaths in Croatia in 2021 (first results), Croatian Institute of Public Health, Zagreb, Croatia.
5. Mišigoj Duraković M, Sorić M (2015) Level of physical activity and nutritional status of high school students-preliminary results of the sports project. In: Findak V (Ed.), 24<sup>th</sup> Summer School of Kinesiologists of the Republic of Croatia-Proceedings, Croatian Kinesiology Association, Croatia, pp. 82-85.
6. Milanović SM, Lang Morović M, Križan H (2021) European initiative to monitor obesity in children. Croatian Institute of Public Health, Croatia.
7. Prskalo I (2007) Kinesiological contents and free time of schoolgirls and students. *Educational sciences* 9(14): 161-173.
8. WHO (2018) Global action plan on physical activity 2018-2030: More active people for a healthier world. World Health Organization, Geneva, Switzerland.
9. Mraković M (1997) Introduction to systematic kinesiology. Faculty of Physical Education, Croatia.
10. Badrić M, Prskalo I, Kvesić M (2011) The importance of kinesiology activity in the formation of children's free time. *Diagnostics in the fields of education, sports, sports recreation and kinesitherapy*. Croatian Kinesiology Association, Croatia, pp. 400-406.
11. Prskalo I, Horvat V, Hraski M (2014) Play and children's kinesiological activities: A precondition for making daily exercise a habit. *Croatian Magazine for Upbringing and Education* 1: 57-68.
12. Rogulj N, Foretić N (2007) Handball school, Split: Scientific and sports society Grifon.
13. Findak V (1994) Physical and health culture about elementary school, School Book, Zagreb, Croatia.
14. Kristjánsdóttir H, Erlingsdóttir A, Sveinsson G, Saavedra J (2018) Psychological skills, mental toughness and anxiety in elite handball players. *Personality and Individual Differences* 134: 125-130.

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15. Costigan SA, Lubans DR, Lonsdale C, Sanders T, Pozo Cruz B (2019) Associations between physical activity intensity and well-being in adolescents. *Preventive Medicine* 125: 55-61.
16. Lujic M, Prskalo I, Bratko D (2023) The difference in well-being between handball players and ones not physically active. *Scientific Journal of Sport and Performance* 2(2): 144-150.