Journal of Physical Fitness, Medicine & Treatment in Sports

Juniper Publishers key to the Researchers

Opinion
Volume 7 Issue 1 - October 2019
DOI: 10.19080/JPFMTS.2019.07.555701

J Phy Fit Treatment & Sports
Copyright © All rights are reserved by Hilde D. G. Nielsen

Increased Physical Inactivity - A Public Health Challenge with Several Side Effects

Hilde D. G. Nielsen*

The Research Council of Norway, Lysaker

Submission: September 21, 2019; **Published:** October 10, 2019

***Corresponding author:** Hilde G. Nielsen, The Research Council of Norway, Oslo, Norway

Abstract

Physical activity is essential for a healthy life with documented positive impacts on heart, muscles, skeleton, blood, respiratory, nervous, hormone, and immune systems as well as mental health. Physical inactivity is to date one of the major risk factors for developing non-communicable diseases like heart disease, stroke, cancer, diabetes, and chronic lung diseases. Both aerobic and strength activity is necessary for receiving health effects. The more physical activity, the better. The higher the intensity of the activity, the better effect, and even very limited activity is significantly better than no activity. The World Health Organization's recommendations for physical activity must be very high on the future agenda in the politics of public health.

Keywords: Physical activity; Inactivity; Health Effects of Physical Activity; Public Health; National recommendations

Introduction

Physical inactivity is a global public health problem. Physical inactivity is identified as the fourth leading risk factor for global mortality, and nearly 3.2 million deaths each year are caused due to physical inactivity [1]. Being regularly physically active throughout your life is the key to a healthy life. It is well documented in the literature that daily physical activity reduces the risk of several chronic diseases [2]. In 2010, the World Health Organization (WHO) developed the "Global Recommendations on Physical Activity for Health" [1]. The overall aim of the recommendations was to provide national and regional level policy makers with recommendations for the dose-response relationship between the frequency, duration, intensity, type, and total amount of physical activity needed for the prevention of diseases which should be adapted to national conditions worldwide.

The WHOs Global Recommendations on Physical Activity are differentiated in the following age-groups:

- children and young people from 5-17 years old should be physically active at least 60 minutes every day [2]. Physical activity in more than 60 minutes provide additional health benefits. The activity should range from moderate activity, such as cycling and playground activities, to vigorous activity, such as running and different ball games. Some of the activities should involve exercises like various strength trainings three days a week -adults and elderly from 18-64 years old should be physically active for at least 150 minutes of moderate aerobic activity and strength exercises on two or more days a week which includes work with all the major muscles [2]. There are several ways for fulfilling the daily recommendations, e.g. to do 30 minutes on five days every week. If that feels easy or when that feels easy it is important to increase the intensity and time to 75 minutes of vigorous aerobic activity every week and strength exercises on two or more days a week. It is also possible to mix moderate and vigorous aerobic activity every week and strength exercises on two or more days a week that work all the major muscles .

-elderly from 65 years and above should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week, or an equivalent combination of moderate and vigorous intensity activity [2]. For additional health benefits, adults aged 64 years and above should increase their moderate intensity aerobic physical activity to 300 minutes per week or engage in 150 minutes of vigorous intensity aerobic physical activity per week, or an equivalent combination of moderate and vigorous intensity activity.

The daily recommendations for physical activity are a good start for being physically active. Physical activity is an important requirement for a long healthy life. Maximum health effects are obtained through regular physical activity, but there is a long way to go to get more people to meet national recommendations for physical activity.

Benefits of being daily physically active

Effects of physical activity depends on the three main factors:

(i) the frequency of the activity,

(ii) the duration of executing the activity, and

(iii) the intensity of the activity [3].

The longer the activity period last, the greater the effects. The higher the intensity of the activity, the greater the physiological effects [4]. Other factors which influence the effect of physical activity are: type of muscle groups in use, gender, age, and diet [3]. Effects of physical activity occur after one bout of exercise and, for long term regular physical activity, after 6-8 weeks.

Regular physical activity improves oxygen uptake, reduces blood pressure, lowers heart frequency, strengthens muscles, and strengthens the skeleton [3]. Maximal oxygen uptake is the maximum oxygen consumption the body can use during maximum work, and it is related directly to the maximum capacity of the heart to deliver blood to the muscles [3]. Light-to-moderate intensity activities; e.g. walking, gardening, shoveling, and dancing; are examples of aerobic activity which can be performed over a longer period [3] and is influenced by the level of oxygen uptake. Anaerobic activity is physical exercise intense enough to produce lactate. Muscle energy systems trained using anaerobic exercise develop differently compared to those trained using aerobic exercise. Anaerobic activity leads to better performance in short-duration, high-intensity activities, which last from a few seconds up to about two minutes, e.g. running the fastest you can after a bus or lifting a height weight. Activities lasting longer than about two minutes has a large aerobic metabolic component [5].

The knowledge about the impact of strength on health is increasing and a correlation between low muscle strength and increase of early deaths has been demonstrated [6]. Low or reduced muscle function decreases the ability to execute daily activities and increases the risk of accidents, e.g. falling. Loss of muscle mass and strength can be rebuilt after two months of strength training [3]. A couple of months of strength training often provides significantly increased muscle strength, ranging from 20-30 percent up to several hundred percent [7]. The ability to increase strength capacity and muscle mass does not seem to diminish over the years, and even people 80 and 90 years old can achieve significantly increased strength and muscle mass after a period of strength training [8]. Strength training is especially important for people who have been physically inactive or being affected by diseases and, due to that, have lost both strength and endurance, which makes it hard for them to execute physical everyday activities.

Why is it so difficult to be regular physically active?

Physical activity should be a natural part of what we are. Being physically active every day may for many be difficult because

(i) the daily life for most people does not require physical activity. The challenge is to integrate physical activity naturally into our daily lives,

(ii) many people do not like to exercise or to be physically active and since it is not naturally integrated in our lives, it will not be prioritized,

(iii) we are surrounded by easy choices of not being physically active e.g. escalators, autowalks, electric bicycles and scooters to mention some, and it can in many cases be difficult to find places for walking or physical activity due to expansions of motor roads, cars etc. etc., and

(iv) the world is constantly changing e.g. climate changes, increased urbanization and automatization.

Is it possible to solve the increasing problem with increased physically inactivity?

Yes, it is possible, but resolving the code for physical inactivity cannot be taken care of only in the health sector. The aim of increased physical activity must be on the agenda in every sector. Every sector must feel responsible. This challenge must be solved jointly.

Yes, but efforts for preventive public health work must increase even more, This can e.g. be done by educate enough people with the right knowledge and by increasing the status of the preventive public health workers. Preventive public health work is a perpetual continuous project that starts with children and young people and lasts through life.

Yes, but we must address this challenge seriously. If we think that we can get away with this by "sweeping the problem under the rug", it will ultimately lead to major consequences in the future.

And last, national daily recommendations for physical activity should be reviewed whenever new knowledge becomes available through research. Constantly adjustments of frequency, duration, and intensity of daily activity are important for future development with the aim of increasing the level of physical activity globally.

References

1. World Health Organization (WHO) (2010) Global Recommendations on Physical Activity for Health.

2. Booth FW, Roberts CK, Laye MJ (2012) Lack of exercise is a major cause of chronic diseases. Comprehensive Physiol 2(2): 1143-1211.V

How to cite this article: Hilde D. G. Nielsen. Increased Physical Inactivity - A Public Health Challenge with Several Side Effects. J Phy Fit Treatment & Sports. 2019; 7(1): 555701. DOI: 10.19080/JPFMTS.2019.07.555701

3. Åstrand PO, Rodahl K (1986) Textbook of Work Physiology. Third Edition ed. Singapore: McGraw-Hill Book Company.

4. Helgerud J, Hoydal K, Wang E, Karlsen T, Berg P, et al. (2007) Aerobic high-intensity intervals improve VO2max more than moderate training. Med Scie Sports Exerc. 39(4): 665-671.

5. Åstrand PO (1992) Endurance Sports. In: Shepard RJ, Åstrand PO (Eds.), Endurance in Sports. London: Blackwell Scientific Publications, pp. 8-20.

6. Ruiz JR, Sui X, Lobelo F, Morrow JR, Jackson AW, et al. (2008) Association between muscular strength and mortality in men: prospective cohort study. BMJ (Clinical research ed). 337: a439.

7. Komi PV (2003) Strength and Power in Sport: Blackwell Publishing.

8. Wang E, Nyberg SK, Hoff J, Zhao J, Leivseth G, et al. (2017) Impact of maximal strength training on work efficiency and muscle fiber type in the elderly: Implications for physical function and fall prevention. Experimental gerontol 91: 64-71.

This work is licensed under Creative Commons Attribution 4.0 Licens
DOI: 10.19080/JPFMTS.2019.07.555701

Your next submission with Juniper Publishers

will reach you the below assets

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats

(Pdf, E-pub, Full Text, Audio)

- Unceasing customer service

Track the below URL for one-step submission

https://juniperpublishers.com/online-submission.php

How to cite this article: Hilde D. G. Nielsen. Increased Physical Inactivity - A Public Health Challenge with Several Side Effects. J Phy Fit Treatment & Sports. 2019; 7(1): 555701. DOI: 10.19080/JPFMTS.2019.07.555701