

## **METHOD OF NUTRITION AND HEALTH OF MODERN SOCIETY**

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### **Keywords:**

- Nutrition,
- Physical culture,
- Health,
- Society.

### **Abstract:**

**INTRODUCTION:** Rational nutrition is the basic condition for the proper physical and mental development of a human being. It consists in providing the body with all the necessary nutrients. Modern research shows a close relationship between diet, food quality and human health. Researchers identified about 80 disease entities occurring in the context of abnormal nutrition.

**THE AIM OF THE WORK:** The purpose of the topic is to show the impact of diet on the health of modern society.

**THE MATHERIAL AND THE METHODOLOGY:** To elaborate the topic, selected literature related to the problem of proper nutrition was used. The article uses the method of literary analysis.

**RESULTS:** The proper way of eating has an unquestionable effect on the health of modern society. Unfavorable changes in the lifestyle of the society in recent years, including the way of eating have led to an increase in the number of children becoming ill and adolescents for diseases once referred to as "senile". Nutritional errors are also one of the important factors leading to civilization diseases.

**CONCLUSIONS:** An appropriate way of eating is, therefore, consuming good quality food products in the right amount and in accordance with the principles of healthy nutrition. The amount of energy and nutrients should condition the maintenance of proper body weight and normal functioning of the body according to age, sex, living conditions and physical exertion

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### **INTRODUCTION**

Rational nutrition is the basic condition for the proper physical and mental development of a human being. It consists in providing the body with all the necessary nutrients. In order for the human body to function properly, it is necessary to have about 60 ingredients. 40 of them the body can not synthesize, so it should be delivered with food. Unfortunately, the contemporary progress of civilization, especially its pace, poses a lot of danger to the physical and mental health. Despite the very high level that medicine has achieved, the number of diseases does not decrease at all. In the more and more busy society, numerous qualitative and quantitative nutritional errors are widespread. In the hierarchy of human needs, nutrition takes a very important position, which is the basic level on the way to maintaining health and well-being [Maslow 2010: 91].

Modern research shows a close relationship between diet, food quality and human health. Researchers identified about 80 disease entities occurring in the context of abnormal nutrition. To the so-called diseases of the dependent diet include overweight and obesity, most cancers, cardiovascular diseases, digestive system, type 2 diabetes, osteoporosis and hyperlipidemia. All of the diseases listed above on a global scale account for 70% of lost healthy years of life among many people.

Rational nutrition is, therefore, the consumption of quality good food products in the right amount and in accordance with the principles of healthy nutrition. The amount of energy and nutrients should condition the maintenance of due body weight and normal functioning of the body according to age, sex, living conditions and physical exertion. Environmental and cultural factors should also be taken into account and civilization and genetic determinants. It is, therefore, a compromise between the principles of healthy eating, and individual, cultural, psychological and civilizational properties, which is worth deciding to enjoy long-term health and well-being.

### **THE ROLE OF RATIONAL NUTRITION IN THE ACHIEVEMENT OF HEALTH**

The awareness of the role of healthy eating and physical activity in maintaining good health of modern people in the era of changing civilization conditions is an indispensable step towards improving the quality of life.

Nowadays, health and body are perceived not only in the biological category and medical, but also cultural and social. It gives the opportunity to act to improve the quality of life of modern society. However, health care has not always dominated among other values as the highest good. This was mainly due to ignorance, backwardness, inadequate living conditions, work, the surrounding environment, lack of rest, or lack of health patterns. Low and ineffective level of medical services, as well as treating the disease as a deserved divine punishment for misdemeanors contributed also to that situation. The socio-economic conditions were also not conducive to health and the creation of beneficial behaviors for health. Epidemics and threats were spreading at an alarming rate to which the medical and care personnel were not prepared in a substantive manner. This state of affairs, unfortunately, was conducive to the activities of many quacks who, using the ignorance of society in the situation of danger, offered unproven treatments to bring about a quick recovery [Głowacka 2000: 131-134].

Food is undoubtedly an integral part of human life. There is one with the necessary physiological needs, along with oxygen, water and sleep to preserve life. In the case of many diseases, it plays a key role in the prevention and recovery. Cancerous diseases, cardiovascular diseases, gastrointestinal diseases most often have a nutritional background. Quite often, insomnia affecting people, nervousness can also be the result of poor nutrition.

The health statistics of modern society record an alarming increase in the incidence of children and adolescents in diseases formerly referred to as "senile". This is the result of unfavorable lifestyle changes in recent years [Ziemiański 2005: 39].

Providing the body with such food that has all the ingredients it needs is a prerequisite for proper human functioning, for good development, for maintaining physical and mental fitness. In proper nutrition, the body provides such food that will provide him with the total need for all the substances he needs to live, that is, the right amounts of proteins, carbohydrates, fats, vitamins and minerals. Food should therefore be varied and prepared in a hygienic manner, and meals should be accepted at regular intervals [Grzymisławski, Gawęcki 2011: 207].

The nutrients are digested in the gastrointestinal tract and are used to conduct many intracellular metabolic transformations, thanks to which the body produces the energy it needs for all life processes and to maintain a proper body temperature. Approximately sixty nutrients are needed in the body, some of which are produced by the human body, but most must be provided with food.

Unfortunately, people very often do not pay much attention to whether what they eat is healthy. They eat to satisfy the temporary appetite for something tasty and convenient to cook, and do not think about what is the biochemical composition of the food and whether it provides some components that are needed by the body to maintain health. We eat too many products of animal and flour origin. Our diets mainly lack fruit and vegetables but also milk and cheese. The food that we eat every day is too processed, often contains only empty calories in the form of fat and carbohydrates. A high-calorie diet low in minerals and vitamins often leads to morbid obesity and so-called civilization diseases, which include, among others, hypertension, atherosclerosis and heart attacks.

Obesity is an increasingly common phenomenon in Western societies. In Europe and North America, a very large group of people suffer from it, even several dozen percent of the population of some countries [Jarosz 2006: 54].

A characteristic feature of obesity is a very large amount of enlarged adipose tissue. Fat cells are too much and they are too large. Obesity results from the genetic tendency to gain weight but above all from running an unhealthy lifestyle. There are people who have genes that are responsible for the proliferation of body fat and it is very difficult for them to lose weight. Genes responsible for obesity are not yet fully understood. There is a great hope that drugs will be created that will force cells to burn fat faster. It is certain, however, that the majority of obese people gained too much weight, because they led a less active lifestyle while eating unhealthy and too caloric food. Many obese people, changing their eating habits and regularly doing some sports can lower their weight and thus gain health.

Obesity is manifested primarily by the increase in body mass caused by hyperplasia. Adipose tissue grows unevenly, which distorts the figure of an obese person. The most fat is deposited on the stomach and hips, especially in women. An obese person quickly gets tired, so he avoids physical strain and this leads to increased obesity. Obesity is associated not only with general weakness, but and with many serious diseases. It increases the risk of diseases such as hypertension, second type diabetes, cholelithiasis, coronary heart disease and heart attacks, breast and colon cancer, and bone diseases, primarily spinal degeneration. Reduced physical fitness exposes obese people to numerous injuries. Obesity is associated with disturbances in metabolism and this can disturb the menstrual cycle in women.

Western civilization carries with it a lifestyle in constant stress and hurry. Many people can not deal with this. Some eat too much and their diet is only high-calorie, does not provide them with the right amount of vitamins and minerals. Media, on the other hand, promote fashion for being beautiful and slim at all costs. Hence, many people do not accept themselves by striving for a thin model ideal. All this confusion about food causes many disorders related to eating [Gawęcki, Roszkowski 2009: 118].

Nowadays, people live longer than ever before. They owe their good health to both the regulated lifestyle and proper care in case of illness. Thanks to a balanced diet, compliance with hygiene rules, active rest and proper prevention, you can reduce or even eliminate the risk of many diseases. Regular check-ups allow for early diagnosis of the developing disease, which effectively increases the effectiveness of the treatment. A healthy life does not involve the torment of denying yourself pleasure and depriving yourself of the

joy of life. Adequate eating habits and caring for one's own health let us fully enjoy life, and this joy is not affected by a bad mood or fear of falling form [www.tkkf.org.pl].

Summing up, it should be stated that the awareness of proper nutrition is becoming more and more common. Young and old people start to get interested in what they eat. They want to not only satisfy the feeling of hunger, but also provide all the necessary micronutrients.

## **THE EFFECT OF PHYSICAL ACTIVITY ON MAINTAINING THE CORRECT BODY WEIGHT**

Physical activity is the necessary amount of movement or physical exercise needed to develop and maintain the health of every human being. The correct course of physiological and metabolic processes is conditioned by the need to provide the human body with optimal or at least minimal amount of motion. In short, physical activity is essential for the health and psychophysical balance of the body [Bielski 1996: 13].

M. Dudziak writes that "Human physical activity is one of the most important factors stimulating its development. Participation in various forms of physical activity develops human health capabilities, it is also an excellent means to form interpersonal bonds, as well as an important element of the socio-cultural development of our civilization "[Dudziak 2018]. The range of physical activity is wide. In the exercise of physical effort, attention should be paid to the individual capabilities of the body [Szwarcz 1979: 45].

Movement activity improves health in various ways. It is the cheapest and the easiest way to prevent many diseases. Doctors are alarming that the current sedative lifestyle: "addictive" spending free time in front of the TV or computer monitor, and thus the general lack of movement habit definitely affects not only the well-being, but most of all human health.

Lack of movement causes disturbances of metabolic processes in people and negatively affects the psyche and the ability to relieve stress. The natural need for movement, which is already evident in early childhood, decreases with age, but it still remains an important factor in maintaining health, youth and preventing all civilization diseases resulting from metabolic disorders (diabetes, atherosclerosis, heart and cardiovascular diseases).

The factors responsible for the lack of adequate physical activity result from upbringing as well as the lack of recreational sporting habits. The reason for not moving is overloading with professional work, financial and organizational constraints, spending free time in front of the TV or computer, lack of general fashion for practicing physical exercises, etc. [Maszczak 1995: 41].

The term "physical recreation" refers to activities of sports and leisure content, such as: sports games, dances, tourism, walks, etc., which man indulges in his own willingness in free time for rest, renewal of strength, pleasure, creation of health and development of one's personality [Toczek-Werner 2008: 23].

In summary, it has long been known that the type and intensity of physical activity taken by man significantly affects his weight and general health. Excess fat tissue is harmful to the body, because it loads the joints and neighboring tissues and increases the risk of certain cancers (such as cancer of the large intestine, breast and kidneys). It also increases the risk of diabetes and cardiovascular disease. Persons practicing regular physical activity not only have lower body weight, but also reduce the risk of many chronic diseases and have stronger bones and joints.

## **THE MOST IMPORTANT NUTRITION ERRORS OF CONTEMPORARY SOCIETY**

In modern societies, health and the body are seen not only in the biological and medical categories, but also cultural and social [Głowacka 2000: 131-134]. Therefore, so-called "Nutritional errors" do not only affect individuals, but also entire social, professional, age groups or the general public.

Nutrition and physical activity are widely recognized as the main risk factors for chronic non-communicable diseases. "Civilization diseases", which include: cardiovascular diseases, cancer, obesity, disorders of lipid metabolism, type 2 diabetes, osteoporosis as well as food allergies and celiac disease [Jarosz, Respondek, Rychlik 2006: 48]. There is also a general consensus that these factors are modifiable, and improving nutrition and increasing physical activity brings effects in the form of improved public health.

In the last decade, the dynamics of these beneficial changes have waned in the diet, which were considered important determinants of improving the health situation in the first decade of the transformation period. These included, in particular:

1. an increase in fruit consumption,
2. change in the structure of consumption of separated fats, involving the increase in the share of vegetable fats [Jarosz 2006: 92].

A. Szczygieł shared the nutritional problems at:

- malnutrition or excessive nutrition causing, among others, deficiency or excess of body weight,
- quality malnutrition, resulting in overt or latent shortages of one or several nutrients, e.g. vitamin deficiencies (avitaminosis), protein deficiencies, etc .; acute quality deficiencies appear in the form of clinical symptoms,
- unsuitable for the body the ratio of individual nutrients of food: they can cause atherosclerosis, hyper- and hypovitaminosis, tooth decay, osteoporosis, osteopenia,
- wrong feeding mode caused by inadequate combination of meals (product selection), inappropriate number of meals and time intervals between them [Szczygieł 1975: 111-113].

Numerous Polish studies show that all four nutritional problems listed above are often correlated with each other. Researchers pay attention to the increase in problems resulting from improper nutrition [Kozłowska-Wojciechowska 1996: 48].

The most common mistakes in human nutrition have a twofold nature - they involve both with food deficiencies, as well as with excessive food intake and inappropriate lifestyle (low physical activity, smoking, drinking alcohol, drug abuse).

Nutritional deficiencies most often concern too little in the diet of energy, proteins, vitamins and mineral salts, dietary fiber, vegetable fats and essential unsaturated fatty acids. A small caloric value of the diet is most often observed in girls from older age groups, which often deliberately limit the amount of food consumed, exaggerating care for the preservation of a slim figure. Too little energy can also be consumed by children living in poor socio-economic conditions.

In contrast, the risks associated with overeating relate to a positive energy balance (which is associated with excessive consumption of high-energy products), excessive consumption of animal fats (resulting in excessive supply of cholesterol and saturated fatty

acids), excessive consumption of carbohydrates (especially simple sugars and sucrose) and table salt.

However, even with excessive nutrition, a shortage of specific nutrients necessary for the proper functioning of the body may occur (eg consumption of sugar, sweets, white bread, biscuits - mainly provides so-called empty calories, i.e. almost exclusively energy, which may lead to a deficiency of proteins, vitamins and minerals) [Gawęcki, Hryniecki 2006: 48].

Asking yourself what are the major nutritional mistakes (poor eating habits) of contemporary Polish society, one can try to get a certain classification [Kierst 1989: 7].

1. Little varied meals; There is no food product that would provide all nutrients in the right amounts and proportions. The variety of products protects against a deficiency or excess of specific nutrients, and the principle of diversification should apply to all meals.

2. Consuming an excessive amount of salt (up to three times more than the World Health Organization recommends); This is due to the fact that salt is added in large quantities during industrial food production, during the production of canned goods, cold cuts, cheeses, silage, smoked meats, marinades, as well as soups and some spices. Salt is almost ubiquitous on the food market. Therefore, it is recommended to limit the consumption of traditional salt by giving up dishes at the table or replacing it with low-sodium salts available on the market or various types of herbal mixtures and spices.

3. High supply of saturated fat and dietary cholesterol; The reduction of fat intake can be achieved by: replacing "fat" products with "lean" products and using various culinary techniques, ie cooking, baking or stewing without the addition of fat. Animal fats are less beneficial to our health than vegetable fats because they contain saturated fatty acids and cholesterol. Limiting the consumption of fats, especially animal fats and abundant products in cholesterol is an indispensable condition for the prevention of cardiovascular disease, atherosclerosis. Limiting fat intake is also important in the prevention and treatment of obesity. 4. Too much sweets consumption; Sweets are characterized by, among others high content of sugar, fat and high energy value, as well as low content of vitamins and minerals.

5. Irregular eating and replacing them with highly processed snacks that lead to excessive deposition of adipose tissue;

6. Too small intake of complex carbohydrates (wholemeal bread, groats) and legumes;

7. Too little vegetable and fruit consumption;

8. Low consumption of vegetable fats;

9. Low consumption of fish, especially marine fish;

10. The use of traditional methods for preparing meals, for example with the use of large amounts of fats.

Incorrect eating habits, i.e. "Nutritional errors" can cause more than 80 different diseases. As a result, over 1/3 of the population in Poland (ie over 12 million Poles) suffer from various diseases that have sources in poor nutrition [Gajewska 2010: 36].

More and more children in Poland have problems with obesity and overweight, and at the same time the number of demanding state meals and charities is increasing. The custom of eating highly processed foods such as "fast food" and the style of eating, which involves eating three, not four or five meals, as recommended by dieticians, is becoming widespread in Poland.

The authors of the Report "Public Health and Population Policy" observe that in the last decade, the dynamics of these beneficial changes in the diet, which were considered important determinants of the improvement of the health situation in the first decade of the transformation period in Poland, has waned. These included, in particular: an increase in fruit consumption and a change in the structure of consumption of separated fats, consisting in an increase in the share of vegetable fats. Although the consumption of fruit and vegetables was given a high priority among the indicators of healthy nutrition, unfortunately, the fruit consumption per capita, after significant improvement in the 1990s, did not increase in the following years. Because of this distance separating Poland from other member countries did not decrease, or rather it increased [Szyborski 2012: 93].

The consumption of salt in European countries, which in recent years has been the subject of special attention, far exceeds the level recommended by the World Health Organization (less than 5 g per person / day). In view of the fact that elevated blood pressure is a major risk factor for deaths in the WHO European Region, reducing salt intake was considered a particular priority for action. Salt consumption in Poland, calculated on the basis of the results of household budget surveys, exceeds the recommended level by 2-3 times, although it may actually be even higher due to the fact that budget surveys do not include consumption in the mass catering sector [Szyborski 2012: 95].

Non-optimistic facts about the bad eating habits of contemporary Poles have one positive side: these matters are becoming more and more widely publicized and subject to public opinion. Membership in the structures of the European Union also makes it possible for wider and transnational activities to improve the quality of life of modern societies.

## **CONSEQUENCES OF NUTRITIONAL ERRORS**

Incorrect nutrition can be the cause of over 80 different types of diseases. One third of Poles (adults and children), over 200 million people, suffer from various physical and psychological problems related to poor nutrition. Poles are still the most frequently dying of cardiovascular diseases and cancers, and thus of diseases, for which ill-nutrition is one of the causes.

Incorrect nutrition is a common and serious problem in Poland, although some of the abnormally nourishing people do not feel the consequences of their behavior yet. The danger of improper nutrition also lies in the fact that some of the disorders are not noticeable in the first stages, and manifest themselves already in the form of illnesses [Jarosz 2008: 162].

The right way of eating is one of the 12 health determinants indicated by the World Health Organization (WHO) cited here many times. Healthy nutrition during the developmental period is the basis of psychophysical health of an adult. And a healthy person is the basis of a healthy society at large.

Food should be safe, which means not only broadly understood health quality (microbiological and technological purity), but above all "nutritional values guaranteeing good health" [Kozłowska-Wojciechowska 2004: 58].

The correct way of eating is to provide all nutrients (over 60) in the right amounts and in mutual proportions, it plays an important role in the whole human life, but the proper nutrition of the young generation is particularly important. Children and adolescents are the group that is most vulnerable to even the smallest nutritional errors. The diet of children affects their physical, intellectual and emotional development as well as the ability to effectively learn. The optimal diet should provide the young person with normal growth, good health and well-being, and guarantee reduction of the risk of diseases of adulthood.

## SUMMARY

Bearing in mind the consequences of nutritional errors, one should distinguish between immediate health consequences (one-time, non-chronic) in the form of indigestion, vomiting, diarrhea, abdominal pain, etc. However, the most dangerous consequences are chronic conditions, manifested after prolonged periods of poor nutrition.

Overweight and obesity among children and adolescents can cause serious consequences. They can cause various mental development disorders, leading to, among others, depression and eating disorders. The result may also be worse results in learning. Obesity may cause the occurrence of sexual maturation disorders. Among the complications of obesity occurring in children, mention should be made of type 2 diabetes, arterial hypertension, cholelithiasis, gastroesophageal reflux disease, and asthma. In children with obesity there is a significant risk of maintaining obesity later in life. It is worth paying attention to providing food consumers with adequate knowledge in the area of shaping food awareness as well as eating behavior, which should form the basis for the content of messages popularizing a healthy lifestyle.

## BIBLIOGRAPHY:

1. Bielski J. (1996), *Wychowanie zdrowotne w szkole*, (w:) *Życie jest ruchem. Poradnik dla nauczycieli WF*, Agencja Promo-Lider, Warszawa.
2. Dudziak M. (2018), *Aktywność ruchowa i jej wpływ na organizm człowieka*, www.cdn.leszno.pl, pobrano: 25.08.2018.
3. Gajewska M. (2010), *Analiza społecznych uwarunkowań wybranych elementów stylu życia młodzieży ze szczególnym uwzględnieniem jakości żywieniowej*, PZH, Warszawa.
4. Gawęcki J., Hryniecki L. (red.) (2006), *Żywność człowieka. Podstawy nauki o żywieniu*, PWN Warszawa.
5. Gawęcki J., Roszkowski W. (red.) (2009) *Żywność człowieka a zdrowie publiczne*, PWN, Warszawa 2009.
6. Głowacka M.D (2000), *Promocja zdrowia. Konteksty społeczno-kulturowe*, Wolumin, Poznań.
7. Grzymisławski M., Gawęcki J. (2011), *Żywność człowieka zdrowego i chorego*, T.2, Wydawnictwo Naukowe PWN, Warszawa.
8. Jarosz M. (2006), *Otyłość, żywienie, aktywność fizyczna, zdrowie Polaków*, Wydawnictwo IŻiŻ, Warszawa.
9. Jarosz M., Respondek W., Rychlik E. (2006), *Konsekwencje zdrowotne i ekonomiczne nadwagi i otyłości oraz przewlekłych chorób niezakaźnych*, (w:) Jarosz M.(red.) *Otyłość, żywienie, aktywność fizyczna, zdrowie Polaków*, Wydawnictwo IŻiŻ, Warszawa.
10. Jarosz M. (red.) (2008), *Zasady prawidłowego żywienia dzieci i młodzieży oraz wskazówki dotyczące zdrowego stylu życia*, IŻiŻ, Warszawa.
11. Kierst W. (1989), *Nauka o żywieniu zdrowego i chorego człowieka*, PZWL, Warszawa.
12. Kozłowska-Wojciechowska M. (1996), *Zasady racjonalnego żywienia*, „Nowa Medycyna”, Nr 21/ 1996.



13. Kozłowska-Wojciechowska M. (2004), *Żyjmy w zdrowiu, czyli nowa piramida zdrowia*, Prószyński i S-ka, Warszawa.
14. Maslow A (2010), *Motywacja i osobowość*, PWN, Warszawa.
15. Maszczak T. (1995), *Wychowanie fizyczne i zdrowotne wobec zagrożeń cywilizacyjnych*, „Wychowanie fizyczne i zdrowotne”, 2/1995.
16. Szczygieł A. (1975), *Podstawy fizjologii żywienia*, PZWL, Warszawa.
17. Szymborski J. (red.) (2012), *Zdrowie publiczne i polityka ludnościowa*, t. II, GUS, Warszawa 2012.
18. Szwarz H. (1979), *Wpływ ruchu i rekreacji fizycznej na somatyczne i psychiczne zdrowie człowieka*, (w:) Dąbrowski K, *Zdrowie psychiczne*, Wyd. IWZZ, Warszawa
19. Toczek-Werner S. (2008), *Podstawy rekreacji i turystyki*, AWF, Wrocław.
20. Ziemiański S. (red.) (2005) *Normy żywienia człowieka - fizjologiczne podstawy*, PZWL, Warszawa.

Netografia:

<http://www.tkkf.org.pl/artykuly/47.html>, pobrano: 24.07.2018r.

