

# REGULATION OF BODY WEIGHT AS THE MAIN MOTIVATION FOR ACTIVE LIFESTYLE

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**Abstract.** There was explored and analyzed the data of body weight of the students of Ukrainian Academy of Banking for “BMI”. By questioning between the students, in this work was investigated the influence of body weight on the state of physical fitness. Using BMI was interpreted the results and identified anomalies in boys and girls weight. An analysis of body mass of students by body mass index was done, by which professionals’ worldwide assessed body weight ratio of adult to its growth. Body mass index is more informative and accessible way to determine the ideal weight. This index is very convenient, since within most of the people it correlates closely with the content of adipose tissue.

**Key words:** body mass index, motivation, obesity, physical activity.

**Relevance of the topic of research.** Obesity among students is a disease of the student lifestyle. Most of the students spend their day sitting. The reason is the upgrading of educational processes. We investigated that physical activity of students is approximately 30 minutes, although hygiene - 2 hours. Doctors at all times were worried about the lack of physical activity undermines health, "enrich" it with new diseases, getting people old. Health depends on the conditions and ways of life by 50% [6].

In university studying conditions rational organization of motor activity gets particular relevance due to imbalance between the food taken by the "fast food" (which becomes the norm for students living in dormitories), physical activity, which is limited for most classes of students in physical education and

leisure time students who mostly come to rest not to sports facilities, but to the cinema or to the bar. And in those places too they sitting, eating harmful food (chips, nuts, etc.). Thus, there is a clear advantage of the bad habits over the healthy lifestyle. This rhythm of modern student`s life leads to rapid weight gain during their studying at the university.

Obesity development is the result of external and internal reasons. External causes include poor nutrition and sedentary lifestyle (all the experts are clearly claiming that lack of physical activity significantly is much more impact on the development of obesity than overeating), the internal reasons are disruption of the endocrine glands or severe nervous system damage (trauma) [7].

The problem of obesity and disease development in student`s life according to many authoritative scholars, practitioners, data, literature is primarily in understanding of the causes of disturbances in metabolism and selecting the most effective means and forms to fight the progression of the process of accumulation of excess weight. In this case physical education is a means of eliminating this disease and prevent its occurrence in a study at high school, and also - the main factor in rehabilitation and health promotion in the making and the final formation of the body [1].

In the Law of Ukraine "On Physical Culture and Sports" [8] described the main challenges facing high school - radical and comprehensive physical education, which is the basis for health promotion. Exactly the high school is the last step of future specialists for independent life, and that what imposes on them a great responsibility for the health and level of physical fitness of students. Health for student is an indicator of its general cultural level of development, to meet his physical and spiritual interests in learning, everyday life, recreation and forming its future. Health status is clearly interconnected with a healthy lifestyle.

Body mass index is a highly sensitive indicator of conformity food energy to the needs of the body. In the absence of such compliance as a result of excessive or insufficient food intake or obesity appears exhaustion, which in both cases is a serious health disorder. The same effect is possible at low or high physical activity without corresponding changes in potential energy diet. In such situations before it becomes a normal diet or excessive or deficient with all the ensuing consequences of this [3]. Connected to that, each person who is prone to obesity or not, should systematically control their weight to know its optimal performance. They should weigh in the morning, for this purpose the flooring weight is suitable.

Weighing results are compared with the ideal or recommended limit of it. The ideal norm is the weight of a man in 25-30 years. At this age physical development ends, and if there was no violations in the diet or serious illness, body weight is the most suitable standard for comparison in the future.

**The purpose** is to determine the physical condition assessment of students on the basis of body mass indexes and their comparison with the ideal body weight.

**Research Methods.** Questioning, teaching observations, interviews, body mass index (BMI).

**The research results.** The study used data questionnaire of 60 students (32 boys and 28 girls) third year studying of the Ukrainian Academy of Banking "Banking" specialty to determine body mass index "BMI".

It is proved that after the experiment BMI indicators have improved significantly in both girls and boys. All methods were applied twice, because originally were surveyed the health and performance of students in March and October. After the first studies among students the lecture on how to improve health and performance benefits of regular exercise were conducted. Each of the students has got an opportunity for an individual approach in improving health.

Body mass index is equal to your weight in kilograms divided by the square of your growth in meters [4]:

$$\text{BMI} = \text{Weight (kg)} / \text{Height (m)}^2$$

For example:

Weight = 75 kg and Height = 1 m 75 cm,

then, BMI = 75 / 1,752 = 24,49

Based on the formula was developed metric. Below were calculated data for different BMI ratio height and weight that will work for most people. If the table doesn't include the required parameters, it is necessary to calculate your BMI using the given above formula.

Table 1.1 - Index of ideal body weight for different ratios of height and body weight [4]

	<b>Height, m</b>								<b>BMI</b>
	<i>150</i>	<i>155</i>	<i>160</i>	<i>165</i>	<i>170</i>	<i>175</i>	<i>180</i>	<i>158</i>	
<b>Weight, kg</b>	40	43	46	49	52	55	58	62	<b>18</b>
	43	46	49	52	55	58	62	65	<b>19</b>
	45	48	51	54	58	61	65	68	<b>20</b>
	47	50	54	57	61	64	68	72	<b>21</b>
	50	53	56	60	64	67	71	75	<b>22</b>
	52	55	59	63	67	70	75	79	<b>23</b>
	54	57	61	65	69	73	78	82	<b>24</b>
	56	60	64	68	72	77	81	86	<b>25</b>
	63	67	72	76	81	86	91	96	<b>28</b>

67	72	77	82	87	92	97	103	<b>30</b>
79	84	90	95	101	107	113	120	<b>35</b>
90	96	102	109	116	122	130	137	<b>40</b>

After calculations of the student`s BMI we have summarized the data presented in Table 1.2 [5]:

Table 1.2 - Summary data of students by category of body weight, as defined by BMI

Body Mass Index	Before experiment		After experiment		Correspondence between human weight and its height
	Boys	Girls	Boys	Girls	
15	0	0	0	0	acute shortage of supply
15—18,5	1	2	1	1	acute shortage of supply
18,5—25	19	10	23	15	rate
25—30	10	13	7	9	overweight (smoothness)
30—35	1	1	1	2	obese first-degree
35—40	1	1	0	1	second degree obesity
40	0	1	0	0	obesity third degree

Here on fig.1.1 You can see the analysis of changes of the total number of students in relation to body mass index prior to the experiment and after it.

As a result of this analysis there was found that 50% of the surveyed girls present overweight and between the young men the figure is slightly lower – 42,9%.

Only 48.3% of all respondents has normal weight and adequate body mass index, even less than a half.

The higher level of BMI, the higher the risk of diseases associated with obesity, and premature mortality [7]. Used indicator of BMI, aware of his convention, as for the calculations do not take into account gender, physique, development of muscles and other human characteristics.

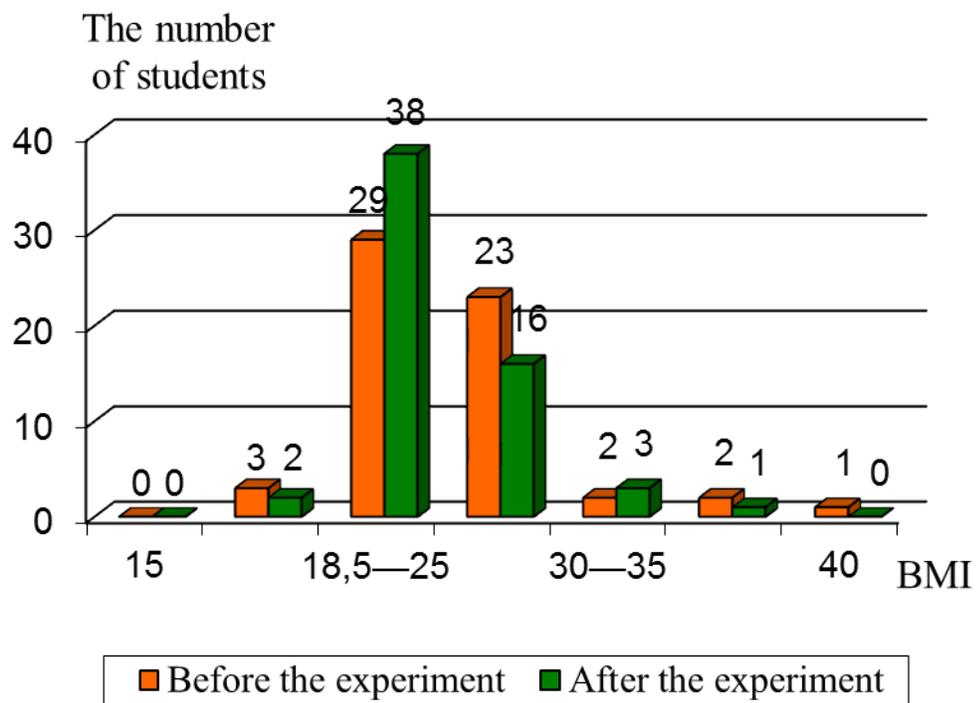


Figure 1.1 – Changes in the number of students in relation to body mass index before and after the experiment

During the experiment, the students got lectures and workshops on improving body mass index and overall weight reduction.

The main cause of primary obesity [2], that is not caused by concomitant diseases is the advantage of energy, which enters the body with food on her expenses. The vast majority of people the saturation is followed by stretching the stomach wall, that means that the same number fatty foods or such food as vegetables saturation occurs at the same time, and getting calories is more than 2 times. Reducing the flow of calories into the body, especially at the expense of fats and carbohydrates, and increasing physical activity of any person not only helps reduce total body weight but also reduce the risk of opportunistic diseases, and facilitates their progress.

Important role in preventing obesity and weight loss not only plays an average range of food products, but also such an important part of the product as the glycemic index. Foods with high glycemic index (potatoes, white bread, sugar, confectionery products, some vegetables and fruits) stimulates the release of more insulin by the pancreas, resulting in the absence of energy converted to fat. To achieve slim figure should be taken mainly foods with low glycemic index - grinding grain bread, oatmeal, vegetables and fruits, except bananas, potatoes [2].

Another important task in the prevention of obesity is changing lifestyle to a more agile, it is advisable to visit a sports hall under the supervision of an experienced coach, which will pick up a complex exercise for weight loss and at the same time improve the cardiovascular system [9].

Within three months the students 2-3 times a week were visited the gym and running. Also harmful food were excluded from the diet, and they were eaten only healthy foods. After that, the measurements of body mass and growth of students were carried out again and received new indicators BMI, which are listed at the table. 1.2.

From the table 1.2 we can see that after the experiment BMI indicators have improved significantly, as a result both girl`s and boy`s physical activity increased from 4 to 8 hours because of good nutrition.

You should keep in mind that regular physical exercises and sports contribute to fitness of the whole organism, and thus make a positive impact not only on the physical qualities of education, thus improving the physical condition of the body, but also have some influence on the functional state of the central nervous system, its plasticity , mobility and strength of nerve processes also affect the mental activity of students and, consequently, promote good student university [6].

Thus, during regular physical exercise and sports it is very important to monitor their health and general health regularly.

To overcome the problem of overweight and obesity, You should from the school desks teach children to an active lifestyle, nutrition, eliminate bad habits, and over the years, we will not only coherent but also strong and healthy nation.

### **Conclusions:**

1) Initial investigation revealed that on the 3 year 48% of students are with normal BMI, and after - 63%. Before the experiment, about 48% of students has not satisfactory and excess body weight, and after only 33%. In 50% of the surveyed girls present overweight in young men the figure is slightly lower - 42.9%.

2) Nutrition and weekly observance of the motor system in full (more than 6 hours) positively influenced on the regulation of body weight among the students.

3) The method of self-control is the main subject of healthy lifestyle.

**Prospects for further research:** further research aimed to study the dynamics of body mass indices for the following academic years.

**List of sources used:**

- 1) Babchenko, J. Peculiarities of physical activity of students with low levels of physical fitness, enrolled in higher pedagogical schools / Youth Sport Science of Ukraine: Coll. of Sciences. works in the field of physical culture and sports. Annotations, content and utility codes. 11th issue: In the 5th and so on - Lions: RPC "Ukrainian technologies", 2007. - P.4-5
- 2) Dudin, A. Excess body weight and its prevention // <http://www.oblsses-kiev.com.ua/clients/kievoblsses.nsf/0/CAD2707C1A979164C225789B00469E36?OpenDocument&ge=9.4&> - electronic resource
- 3) Ivashkin, V. Internal Medicine / V. Ivashkin. - M.: "Medicine", 2003. - 543 p.
- 4) Body mass index // <http://www.npblog.com.ua/index.php/meditsina/indeks-masi-tila.html>-electronic resources. - electronic resource.
- 5) Body mass index // [http://uk.wikipedia.org/wiki/Індекс\\_маси\\_тіла](http://uk.wikipedia.org/wiki/Індекс_маси_тіла) - electronic resource.
- 6) Napadnyy, A. Functional condition of the body physical education of the students and the ways to improve it // <http://conferences.neasmo.org.ua/node/46>
- 7) The concept of obesity // <http://conferences.neasmo.org.ua/node/46>  
<http://uk.wikipedia.org/wiki/Obesity>
- 8) On Physical Culture and Sports: The Law of Ukraine on 17.11.2009 № 1724-VI // [zakon.rada.gov.ua](http://zakon.rada.gov.ua) - electronic resource.

9)How to lose weight naturally? // <http://healthportal.com.ua/index.php/stattimed/146-yak-skhudnuti-prirodnim-shyakhom> - electronic resources.

### Literature:

1. Бабченко, Ю. Особливості рухової активності студенток з низьким рівнем фізичної підготовленості, які навчаються у вищому педагогічному навчальному закладі / Молода спортивна наука України: Зб. наук. праць з галузі фізичної культури та спорту. Анотації, зміст та допоміжні індекси. Вип.11: У 5-и т. – Львів: НВФ «Українські технології», 2007. – С.4-5
2. Дудін, О.В. Надлишкова маса тіла та її профілактика // <http://www.oblises-kiiev.com.ua/clients/kiievoblises.nsf/0/CAD2707C1A979164C225789B00469E36?OpenDocument&ge=9.4> – електронний ресурс
3. Івашкін, В. Т. Внутрішні хвороби / В. Т. Івашкін. – М.: «Медицина», 2003. – 543 с.
4. Індекс маси тіла <http://www.npblog.com.ua/index.php/meditsina/indeks-masi-tila.html> -електронний ресурс.
5. Індекс маси тіла // [http://uk.wikipedia.org/wiki/Індекс\\_маси\\_тіла](http://uk.wikipedia.org/wiki/Індекс_маси_тіла) – електронний ресурс.
6. Нападній, А. Функціональний стан організму студентів факультету фізичного виховання та шляхи його покращення <http://conferences.neasmo.org.ua/node/46>
7. Поняття ожиріння // <http://conferences.neasmo.org.ua/node/46>  
[http://uk.wikipedia.org/wiki/ Ожиріння](http://uk.wikipedia.org/wiki/Ожиріння)

8. Про фізичну культуру і спорт: Закон України від 17.11.2009 № 1724-VI // zakon.rada.gov.ua - електронний ресурс.
9. Як схуднути природнім шляхом?  
[//http://healthportal.com.ua/index.php/stattimed/146-yak-skhudnuti-prirodnim-shyakhom](http://healthportal.com.ua/index.php/stattimed/146-yak-skhudnuti-prirodnim-shyakhom) – електронний ресурс.

Shapoval N. Regulation of body weight as the main motivation for active lifestyle [Text] / N. Shapoval // Слобожанський науково-спортивний вісник : наук.-теор. журн. – Харків : ХДАФК, 2012. - №3. – С. 24-27.