The adult. The adult period corresponds to the age range from 18 to 40 years. During this period, neuropsychic strength and capacity are at their maximum. To these is added the experience, offering a greater potential to the activities carried out in science, art, sport. Creative power is at its peak in performance sports activity.

At 20-25 years, the striated muscles represent 35-40% of the body weight, the muscle tone being maintained through sustained and repeated work.

However, from early on, physical capacity is reduced due to "wear and tear" changes, especially of the locomotor apparatus (joints, bones), which are added to the involutive processes with early onset. Intense, irrational sports activity accelerates the appearance of these morphological changes, reduces the athlete's performance period and reduces the maximum biological potential.

Even from the adult period, performances and sports activities are reduced by engaging the body entirely in the involutional processes. At the beginning, the daily loss of neurons, started since childhood, is well compensated by the maturation and increase in the size of the remaining neurons and later by the increase of neuronal connections (synapses). The process of neuronal destruction can be intensified by hypoxia, hypoglycemia, vascular diseases that decrease cerebral blood flow.

Changes in the locomotor system, cardio-vascular, pulmonary, etc., begin to intervene directly during this period. Thus, the respiratory function is reduced, the vital capacity decreases by 17.5 cm^3/m^2 of body surface per year. Cardiac output decreases from the age of 20 by 1.3%/year.

Although the weight of the brain represents 2% of that of the body, it receives 20% of the body's oxygen ration and indirectly a large capacity of nutrients, through a very rich network of blood vessels. Mean cerebral circulatory flow measured with nitrous oxide is approximately 750

Hypoacusis (presbycusis) is a characteristic of old age. There is a reduced sensitivity to sounds and high frequencies, deciphering speech being difficult, especially in conditions of added noise. Inflexible, the senescent adapts very hard to changes, which sometimes become difficult to bear (Ciucurel, 2005).

The old man also has a hard time adjusting to extremes of heat and cold. Biological potential and physical strength obviously decrease as a result of profound general changes. Many of the elderly can no longer have sexual relations, and the morphological changes of the organs create poor functionality in chronic diseases. Cardiovascular diseases that negatively affect the functions of other organs are very frequent causes of death.

Pulmonary changes, such as decreased elasticity and lung capacity, increased airway stiffness, and others are negatively influenced by air pollution or airborne infections.

Other changes: the pupil shrinks, the retina loses neurons; accommodating close vision is difficult, limiting the perception of details; the need for light increases due to pupil reduction and changes in opaque environments. Thus, at 80 years old we need three times more light than we needed at 20 years old. The eye has a hard time adapting to light vibrations, at 80 years old the time needed to adapt to darkness being increased three times compared to a 25-year-old individual. Vision is less clear even after adaptation, and color distinction is reduced (presbyopia). All these complex changes greatly reduce the physical activity potential of the elderly. However, he can perform simple movements with low intensity effort, with a comforting effect on the body's components, influencing the involutive processes, especially the cerebral ones which are reduced, and the general tone better.

Low-intensity physical activity also offers real advantages in the prevention of intercurrent diseases, atherosclerosis, cardiovascular, pulmonary and digestive diseases.

I.3. LEISURE ACTIVITIES – MODERN MEANS OF PHYSICAL CULTURE

People in different times have defined the term *leisure (eng.)* , *loisir (fr.)* or *free time* (L) in different ways. Ancient Greek philosophers, for example, saw L as a work of the mind, which led them to use all their accumulated knowledge (languages, mathematics, science, music and art) to broaden their individual horizons and especially to to become each a better citizen. The goal was to transform the individual into an educated person, which meant reaching some maturity (Brightbill, 1973).

This understanding of the concept (work of the mind) is in contrast to the 21st century view, which regards L as time used for recreation and fun (Braden, 1988; Butsch, 1990; Giamatti, 1991).

As a concern for the ancient Greeks L was limited to those who were not engaged in trade and industry, or who did social household activities; it was necessarily, in a way, a task entrusted to those responsible for the running of the state.

The ancient Romans had a distinctive caste system, with slaves for physical labor, but for the Romans L primarily meant rest through work. On the other hand, the Puritans thought that L was a sin. Their work ethic required them to work from dawn to dusk 6 days a week, Sunday being the day of rest in which they were devoted to spiritual contemplation and handicraft activities.

Western civilizations thus developed a kind of double standard that had the role of linking work to L. The upper classes in Greece and Rome looked down on menial work, farmers and artisans being very low on the social scale, even if they were not slaves .

Christians and Jews had a different understanding. Not only were they involved in leading the work, but it was seen as a kind of imitation of

God's divine act of creation. That is precisely why the work week was 6 days, similar to the days in which God created the world, as in the writings of the Bible; the seventh day was for rest. L did not exist as a concept for Jews and Christians. In recent centuries the religious view of work has been renamed ethical work. But in the middle of the 20th century, the Greco-Roman point of view returned to actuality.

The French sociologist Joffre Dumazedier specified as early as 1976 that leisure represents " *a set of occupations to which we can dedicate ourselves with pleasure, either to rest, or to have fun, or to acquire information, or to stimulate voluntary social participation , after prior release from professional, family or social occupations* " (Dumazedier, 1976). Holding a fundamental role in man's continuous effort to maintain his physical and mental balance, respectively health, leisure does not mean physical and intellectual inactivity, but activity, but an activity of a different kind, consisting of the organization and constructive valorization of the free time at our disposal, time freed from any usual activity.

Today L is often seen as the time left after satisfying existential needs (such as sleeping, eating) and for subsistence (such as work or education). This remaining time is used according to the option of each. Studies have shown that adults spend an average of 80-85 hours per week for existence and about 35-40 hours for subsistence, leaving an average of 40-50 hours for L.

Any activity performed at an intensity of 3-6 metabolic equivalents (METs) calculated as the ratio between the metabolic rate of an activity and the resting metabolic rate is considered physical activity carried out during free time; it is equal to approximately 3.5 mL O_2 ·kg-1·min-1 for a person weighing 60 kg. The American College of Sports Medicine (ACSM) in collaboration with the Center for Disease Control and Prevention (CDC)

those with a low degree of culture, ethnic minorities and people over the age of 45 (Massey, 1989).

Lack of physical activity increases the risk of osteoporosis in women, decreases resistance and muscle strength, causing over time a low effort capacity, as well as various chronic diseases related to the loss of independence in old age. Therefore, it is recommended to suggest and educate sedentary individuals in order to adopt a healthy lifestyle, which would involve moderate physical activity at least 30 minutes daily.

Another study looked at the determinants of leisure-time physical activity for older women and ethnic minorities, in rural versus urban settings. The research followed the differences determined by socio-demographic factors, as well as the pattern of relationships between the determining factors of leisure activities and the activities themselves (Wilcow, Castro, 2000).

The US Center for Disease Control and Prevention indicated in a recent report that physical inactivity was higher in rural areas (37%) and lower in urban areas (27%), with some regional differences. This can be explained by the fact that in the rural population, the poverty rate is higher, health services are at long distances, the level of education is low and the probability of chronic illness is increased. Women, the elderly and ethnic minorities are particularly affected from this point of view.

Thus, the main barriers for involvement in leisure activities for urban women are represented by the fear of accidents, the lack of a safe space for practicing exercises and family obligations, associated with lack of time, energy and daily fatigue, while for women from the rural environment, the impediments refer especially to childcare, lack of time and energy.

The results of the experiment indicate the conservation of the ecological and social-cognitive variables (social support, environmental factors, various obstacles) encountered in the study of leisure activities for

1.4 MET-hour/day (121 kcal/day) and in women by 0.1 MET-hour/day (70 kcal/day) during summer compared to winter . This conclusion has important implications for clinical research examining the effects of physical activity on health, as well as for promoting health through increased levels of physical activity.

A study conducted in Australia to determine how time is used used specific questionnaires with questions covering the activities carried out in 48 hours, to which people over the age of 15 answered. A maximum of two simultaneous activities were recorded, one main and one secondary, every 5 minutes of free time. The main activity is considered to be the first activity recorded, while the secondary activity refers to what else could have been done at the same time.

Use of time on weekdays/weekends			
	Hours: minutes	**Hours: minutes**	**Hours: minutes**
Time	**Working days**	**Weekend**	**Total**
Necessary for daily maintenance	10:50 a.m	11:41 a.m	11:05
Assigned to the profession	4:36 a.m	1:26 a.m	3:41 a.m
For interplay sociable	3:45	4:12	3:53
Free	4:44 a.m	6:37 a.m	5:16 a.m
Barbie	4:48	7:07	5:29
Ladies	4:39	6:06 a.m	5:04 a.m
Total	**24:00**	**24:00**	**24:00**

Table no. 7 – How to use free time
(Australian Social Trends, 1999)

The data collected shows that Australians enjoy an average of 5 hours of free time per day, roughly equal for both men and women on weekdays, but with a higher proportion for men on weekends.

The labor force status of a person is a determining factor of the free time he can dispose of, along with family responsibilities (especially the time devoted to the care and education of children).

where r represents the number of lines in the table, and c the number of columns in the frequency table.

The hypothesis of the association of the variables in the cross-frequency table can be tested by the chi-square formula only if all the values of the expected theoretical frequencies are greater than 1 and if at least 20% of these values are greater than 5.

The statistical-mathematical processing of the data complied with the previously stated methodological requirements and was carried out with the help of the Graph Pad for Windows program.

II.3. PRESENTATION OF THE STUDY GROUPS

The experimental design assumed the use of an experimental group made up of adults living in Argeş County who have the following characteristics:

- The age of the subjects was between 30 and 60 years, with an average of 46.29 years. The subjects were classified into the following age groups:

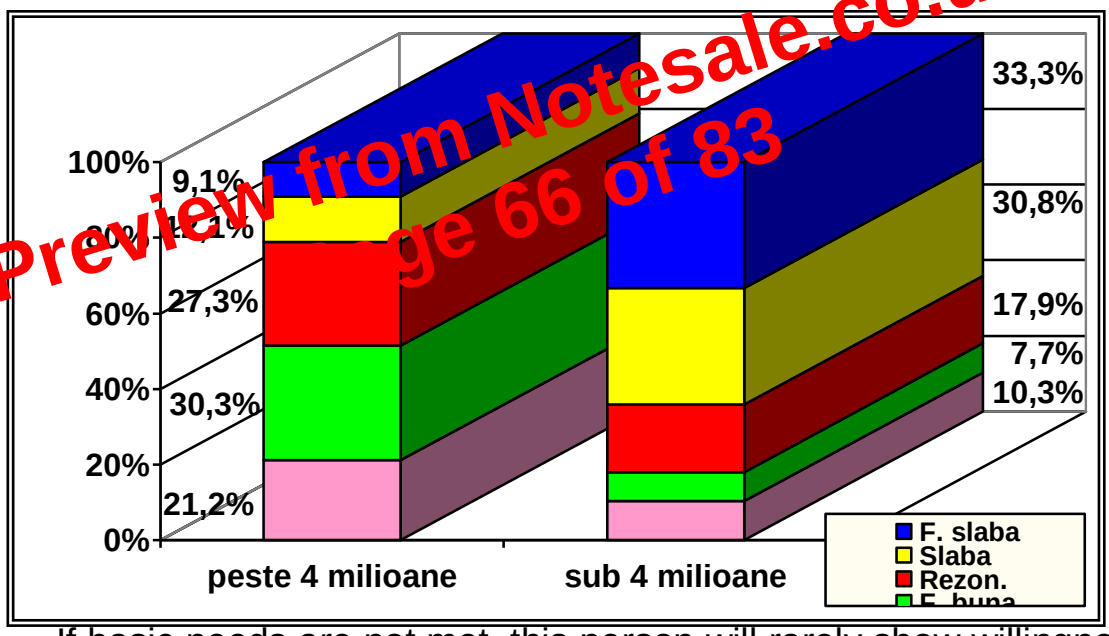
Age group	30-35 years	36-40 years	41-45 years old	46-50 years	51-55 years old	56-60 years	Total
Number of subjects	12 16.6%	12 16.6%	12 16.6%	12 16.6%	12 16.6%	12 16.6%	72 100%

Table no. 10 – Distribution by age groups of the studied group

Table no. 14 - Distribution of types of physical condition (assessed by the physical activity index - IAF) according to income / family member

Fig. no. 8 – Distribution of types of physical condition (assessed by the physical activity index – IAF) according to income/family member

It is observed that the income per family member obviously influences the participation rate in physical leisure activities, which is explained by the material resources and implicitly by the higher standard of living of this population group. An income greater than 4 million allows the provision of basic needs at the base of Maslow's motivational pyramid and activates needs at the intermediate and higher levels of the hierarchy. Thus, the person can get involved in leisure activities in the context of satisfying a need for affiliation, a need for esteem and status or a need for self-realization.



If basic needs are not met, this person will rarely show willingness to engage in leisure activities. In conclusion, the level of income is reflected in the way the person organizes his life, starting with the elements related to the food ration and ending with the availability to practice physical exercises, which ultimately improve his physical condition and health.

The data prove that the living environment (urban / rural) influences access to physical leisure activities ($p \leq 0.05$).

4. The evaluation of the relationship between the physical condition determined by physical leisure activities and the income per family member (under 4 million lei/month and respectively over 4 million lei/month) indicates a statistically significant distribution of cases (p 0.02) ≤.

Among those with incomes per family member over 4 million lei/month, the weight of 30.3% for very good participation in leisure activities, 27.3% for reasonable participation and only 9.1% for very poor participation is noteworthy. On the other hand, for the group of those with incomes per family member under 4 million lei/month, the highest percentages 33.3% and 30.8% characterize very weak and respectively weak participation in leisure activities, and the lowest percentage corresponds to very good participation (7.7%).

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2. Average energy consumption/week…….cal
3. Average energy consumption/week…….cal
4. Average energy consumption/week…….cal
5. Average energy consumption/week…….cal

Total energy consumption per act. of leisure……kcal/week