

## THE COMMENTS ON UNDERSTANDING THE CONCEPT OF FITNESS AND HIS IMPORTANCE AT PRESENT

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**Abstract:** Understand the concept of fitness can help solving everyday problems, marked both by physical stress as well as the psychic and contribute to the prevention of chronic disease such as stress, obesity, diabetes, cardiovascular disease, digestive, and so on. a. All this could be avoided by practicing regular physical activity attractive forms through nutrition and recovery as rational. The concept of the fitness, refers to those aspects of physiological and psychological functions that protect against some types of degenerative diseases such as cardiovascular disease, obesity and certain musculoskeletal disorders. To understand this concept, experts have measurable divided into three parts: endurance, strength and flexibility. Basically, specific fitness exercises offer the possibility of acquiring and retaining an optimum physical condition, a wellbeing which can only have a positive consequences for everyone.

**Keywords:** fitness, cardio-respiratory endurance, strength, mobility, physical exercises

Currently, physical and mental health of people is threaten,ed by ever-changing problems of modern civilization, marked by “industrializing” galloping all the activities that were previously resolved exclusively by means of physical activity.

On the other hand, physical inactivity and stress increasingly evident that evolve from simple fatigue to the worst forms of depression and sedentary lifestyle can lead to serious health problems such as chronic headaches , back problems, cardiovascular disease, etc., problems that can be summarized in danger of the three “S” – stress, sedentary and overweight (obesity). According to the experts, cardiovascular diseases are the leading cause of cardiovascular mortality in Europe and worldwide, with a death rate of 32% women and 27% men in 2004, according to data from the World Health Organization – WHO\*.

According to a study conducted 19 years ago, in 1997, found that 17% of the adult population of the world is sedentary and 60% of the total population of the globe is not exercising enough (I.M. Lee and P. J. Skeritt, 2001), and the consequence is that malnutrition and lack of physical activity, are responsible for over 2 million deaths per year (Blair et al, 1995; Biddle et al, 2000).

The statistics of Romanian Association of Endocrinology, from 2012, show that 25-30% of Romanian are obese (which would mean 3.5 million) and 64% are overweight. The high percentage of obese people in our country - over 30% of wom-

en and 20% men, given that Romania ranked 3rd in Europe in the prevalence of obesity standings (after Serbia and Greece)\*\*.

A study in Rep. Moldova, indicating a reduction in the consumption of fruit and vegetables, except potatoes, to once a week or less, compared with the daily dose of 400 gr recommended by the World Health Organization. Hence perhaps the explanation why in Moldova, 49.2% of the population is overweight, according to data of the World Health Organization in 2008. Overweight, besides physical inconvenience can cause serious diseases, cardiovascular, respiratory, diabetes, etc. All WHO indicate the main causes of mortality in Moldova as cardiovascular diseases, cancer and digestive pathologies.

In the actual context, everyday life, man is increasingly faced with situations increasingly more stressful, which requires the delivery of a domestic or professional, systematic and varied. These activities determined adapt the human body to physical effort and mental different intensities, under various forms, in various environments, so it requires the involvement of every individual in physical activity pleasant to adopt an active lifestyle and healthy in order to improve quality of life. In these circumstances, the World Health Organization (2010) makes recommendations on the health of the population and hence the level of physical activity you need to perform every adult to maintain an optimal state of health.

\* World Health Organization. The Global Burden of Disease, 2004, Part 2, p. 8.

\*\* International Obesity Task Force EU Platform Briefing Paper

Thus, every adult should do at least 50 minutes of physical activity of moderate intensity physical effort that is involved in a large number of muscles. (WHO, 2010)\*\*.

Based on these considerations, the specialists in the physical education and the sport propose many theories and methods of practicing the physical exercise in order to be effective, depending on the objectives, which should ultimately lead to improving the functions of the apparatus respiratory, circulatory, digestive tract, and the nervous system. Improving physical condition in particular and life in general, can only be achieved through physical activity carried out in an organized manner and through a proper diet.

According the specialists, such as B. Ferrario and M. Aparaschivei (1997), believes that to improve cardiorespiratory fitness and muscle, bone health and reduce the risk of illness and depression, it is recommended at least 150 minutes physical activity of moderate intensity during the week or at least 75 minutes of activity high intensity over a week or a similar combination of the two types of activities, the activities must be carried out in half for at least 10 minutes. For additional health benefits, adults should increase moderate physical activity to 300 minutes a week or 150 minutes the intense or combine the two activities. To strengthen the muscle activities involving the major muscle groups should be performed at least twice a week.

From Anglo-Saxon literature, the term is used in our fitness and physical condition means. The concept of fitness refers to the ability of the individual to effectively perform any physical activity (professional sports) without completely deplete energy resources. In short the concept of fitness may be synonymous with "being in shape" or "having good physical condition".

Originally, fitness comes to from bodybuilding and today has become a much broader concept and attractive because it does not involve very large weights, the main objective is not exaggerated muscle development but rather its tone and achieving optimum physical condition. The idea of fitness experts and provoked domain: study for fitness (physical fitness), general physical fitness

or competence have preoccupied E. Fleishman (1964) who has designed this concept.

M. Hebbelinck developed the concept of fitness, claiming that it is necessary to take into consideration when considering the individual's ability to move, anatomical and physiological connection between factors, strength, mobility, coordination and endurance subjects (M. Hebbelinck, J. Borms 1969). But before defining the concept of fitness, we can appreciate that it can be summarized in the affirmative answer given to the following questions (as Ch. B. Corbin and R. Lindsey, 2007):

- Can you perform daily tasks vigorously pursued without experience fatigue?
- Have you a proper body attitude?
- Have you still enough energy for leisure activities at the end of the day?
- Have you a body supple and agile?
- Can you engage in prolonged physical effort?

Concern for the education of motor skills in general was and is an interesting subject of area specialists, knowing the role they play in improving performance and driving ability of man. For this reason, motor skills development methodology equally concern both physical education teachers and coaches and physiotherapists. The physical condition of man is better, so it is healthier, this yield by practicing regular form of motion pleasant, leading to improved function cardiorespiratory improves physical attributes and body immunity, thus reducing the risk of certain diseases.

Drs H. Kraus and W. Raab (Falls, Baylor, Dishman 1980) believes that physical fitness refers to ***"those aspects of physiological and psychological functions that protect against some types of degenerative diseases such as cardiovascular disease, obesity and some with musculoskeletal disorders"***.

These conditions have called hypokinetic diseases that are often associated with low levels of energy expenditure, especially in the present situation sedentary people. In turn, Harold B. Falls, Ann M. Baylor and Rod K. Dishman (1980) believes that the Fitness is ***"as a form of individual enthusiasm and participation in the training-oriented sports continues to work on a higher level of life of the individual"***. The concept of fitness is used in the general strategy of

\*\*\* The survey was conducted by Magenta Consulting on a sample of 641 people. Data from this survey is nationally representative and have a margin of error of  $\pm 3,9\%$  at a confidence interval of 95%. Data were collected between 2 to 10 March 2015. <http://consulting.md/rom> accessed 1.03.2016.

maintaining health, it expresses the ability to access the best quality of life, while being a *“pre dynamic, multidimensional, which are based on health status and positive It includes several components: fitness, intellectually, socially, spiritually and physically”* (Dumitru Gh., 1997).

C. Corbin and Lindsey R. (1984) define fitness as *“the ability of a human to perform the effective and efficient daily work, which consists of eleven different component, different each one of them contributes to higher level private physical efficiency and the level of an individual’s life in general”*.

According by Philip E. Alssen, Joyce M. Harrison and Barbara Vance (1989) fitness as *“a reflection of the ability of an individual to actively work and enjoy without the emergence of an unjustified tiredness save some energy for use in promotional activities and unforeseen emergency”*.

By the same authors (P. E. Alssen, J. M. Harrison and B. Vance 1999), fitness designate a set of attributes “skills” that individual cope with the physical and functional daily activities or sports addicts provided to anatomical, physiological, and psychological.

After C. Ulrich (2000), physical condition/fitness as *“the capacity of the human body to function with vigor and alertness, without undue fatigue, with enough power to engage in leisure activities and prevent physical stress; muscular strength, endurance, cardiovascular fullness and liveliness are visible signs of physical condition”*.

And Charles B. Corbin and Lindsey Ruth (2007) believe that there is a close relationship between physical activity, fitness, health and beauty (Figure 1).

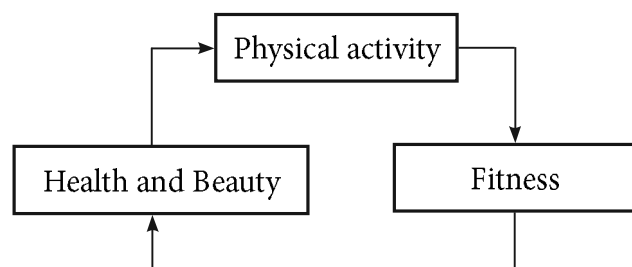


Fig. 1. The Cycle of the beneficial physical activities

On the other hand designate fitness and sport, akin to bodybuilding but puts more emphasis on

harmonious development of muscles using exercises that use lower weights with more repetitions. The ultimate goal of practicing fitness is to develop a healthy body, balanced with a smooth and well-defined musculature.

Cannot really talk about fitness unless they regard its basic components, which are (Pate P.P. 1983):

- a. **Cardio-respiratory endurance** – the body’s ability to carry oxygen and nutrients to muscles and retrieve resulting products of metabolism;
- b. **Muscular strength** – the maximum force that can develop a muscle in a single contraction;
- c. **Muscular endurance** – the ability of the muscular system to perform the number of repeated contractions a muscle or muscle group can perform against a resistance without fatiguing.
- d. **Flexibility (Mobility)** – the ability to move a joint through its full range of motion normal;
- e. **Body composition** – refers to the amount of lean mass relative to the amount of body fat on a given individual.

These components are primarily dependent on the health status, which means that any individual can improve their fitness, even without special skills.

Identify and describe the components of fitness is a difficult issue, there is no unanimity among experts. Thus, E. Fleishman, one of the specialists in the field and creator of the school in July decade of the twentieth century, identify new factors (1964): flexibility extension, dynamic flexibility, explosive strength, static strength, dynamic strength, trunk strength, overall body balance, overall coordination and stamina (cardiovascular endurance).

In turn, H. B. Fall (1965) and he still emphasizes nine factors: athletic condition, the maximum metabolic, respiratory capacity, diastolic pressure, heart response during exercise, expiratory capacity, blood pressure, pulse at rest and dynamic force.

L. Denisiuc (1967) considers that the main factors are: strength, power, speed, agility (coordination), mobility and endurance.

M. A. and T. Zuiderma A. Baumgartner (1974)

identified four factors of fitness, common for men and women, decisive in this respect: upper body strength and endurance; trunk strength and endurance; explosive power and endurance feet; cardio-respiratory endurance.

R. Kovar (1980) sets out four categories: maximum static and dynamic force; the rate of reaction of the invention; local muscular endurance total aerobic; dexterity, coordination, balance, spatial orientation; joint flexibility.

B. Tancred (1995) described the nine components that define in more detail the concept of fitness:

1. **Force** – the muscle response to a force that opposes resistance.
2. **Power** – the ability to exert maximum force through a move as soon as possible. The two components of power are strength and speed.
3. **Agility** – the ability to perform sudden movements in quick succession and opposite directions (ex.: Running zigzag).
4. **Balance** – postural control both moving and stationary.
5. **Flexibility** – the ability to perform a wide range of movements without any physical impediments (ex.: musculature in excess, excess fat, etc.).
6. **Local muscle endurance** – the ability of muscles to sustain a lengthy effort in optimal conditions (ex.: pedaling, rowing).
7. **Cardiovascular endurance** – the ability of the heart to supply blood to active muscles and its ability to use blood provided by heart (ex.: long distance running).
8. **Strength endurance** – the ability of a muscle to make a maximum effort repeatedly over a period of time.
9. **Coordination** – the ability to control body movements and perform properly in order to obtain maximum efficiency.

The main difference between the subjects using free weights and machines in preparation is given by the way in which the focus is on fitness components (as in physical condition). Thus, while practicing bodybuilding requires a strategy for training oriented clearly towards the development of muscle mass as large relative to the criteria of symmetry, proportion, definition, outline, separation, vascular muscle groups in practicing

fitness, tracked more muscle definition and tone, together with improved cardiorespiratory function. Even if many people go to a bodybuilding gym / fitness without clear intention of sport performance, it is very important to set goals at the beginning so that it can be adopted best “strategy” of training. As most of those who end up in a gym not only aim to increase muscle mass, but also improving physical fitness, increasing moderate tone and muscle mass and possibly reducing the layer of fat, an approach fitness exercise is more suitable, being necessary to focus on a sensible diet and adequate recovery.

The state of fitness (physical condition) is influenced by age, sex, constitution individual - somatic type and his lifestyle. Everyone starts life with a potential morphological and functional, largely genetically determined, which sets limits for health and fitness. Body shape, somatic typology which he belongs, the type of metabolism, bone structure, size and condition of the heart, the lungs, the number of muscle fibers, their type is determined at birth. Some experts believe the main means by which to achieve the objectives of this sport are: exercise, specialized equipment (free weights: Hanta, dumbbells, bars, discs, special facilities: banks of various shapes and sizes, fixed and adjustable, weight sliding engagement with cables - Butterfly Machine, gym on machine or levers or multi-functional protective equipment), food (proteins, carbohydrates, lipids, vitamins, minerals and water) and recovery (after exercise). Everyone can benefit from practicing physical exercises, but depends only on the practitioner if he can mobilize in this direction.

In order to strengthen the above we can talk and U.S. specialists concern regarding fitness. Thus, to determine the fitness level of a person Presidential Council for Fitness in S.UA divided into three parts fitness measurable: endurance, strength and flexibility.

1. **Resistance/Endurance** is defined as “the ability to make a physical effort as optimal for long periods of time”. We can speak of two types of cardio and muscle resistance. Cardiorespiratory resistance is the ability of the heart and lungs to provide oxygen and nutrients muscle via the blood. Aerobic exercises like running, cycling, swimming, increase cardiorespiratory capacity, this, right dosage, burn calories and also reduce

blood fat, helping to maintain body weight under control. A system with good cardiopulmonary fitness, reduce risk of death from heart attack and lung disease. Endurance fitness is "the ability to sustain the necessary activity level for a specific competitive sport. It includes both cardiovascular and muscular endurance required for the sport".

When it constitutes an exercise program to increase cardiorespiratory fitness community take into account the following indicators:

- a. **Type of activity** – activity must use large muscle groups and must be maintained for a long period of time.
- b. **Intensity** – average intensity to increase cardiorespiratory fitness in healthy adults start at 60-70% of functional capacity known as maximum heart rate.
- c. **Duration** – year duration will depend on the intensity. Usually low-intensity activities such as walking can take longer than high-intensity exercise such as running. An adequate level of fitness can be achieved by alternating low and high intensity activities such as walking sandwiched between brief periods of running. It is recommended 15-60 minutes of aerobic activity continuous or discontinuous.
- d. **Frequency** – Aerobic activity should be performed 3-5 times a week. e. The rate of progress – the first 6-8 weeks of training will take place significant progress in cardiorespiratory capacity. For this progress continue, the practitioner must properly adjust the intensity and duration of activity.
- e. **Stages of the progress.**

There are three stages in the aerobic resistance:

1. *The initial phase of adaptation* – during the first 4-6 weeks are recommended reduced levels of 10-15 minutes at 60-70% of maximum heart rate.
2. *The adaptation phase* – initially there is a slight increase in the intensity exercises after this length of service is increased every 2-3 weeks.
3. *The maintenance Phase* – normally after 6 months of aerobic workout, average person will achieve the goal of getting a corresponding level of fitness and wants only to maintain this level. It is sufficient for an exercise program at a level of 60-70% of the

maximum rate of the heart executed three times per week.

The second type of resistance that must be developed in order to have an appropriate level of fitness is muscular. This is defined as the ability of muscle to perform contractions over long periods of time.

**2. Muscular strength** is another measure of fitness and is divided into two categories:

- a. Static force (isometric) it does not change the size of muscle fibers.
- b. Force dynamic (isotonic) muscle fibers are modified dimensions shrink.

The force can be increased by static contraction of the muscles using isometric exercises or dynamic exercises that use heavy weights that allow a small number of repetitions.

**3. Flexibility**, the ability to move muscles and joints throughout their course naturally. The low elasticity favors accidents, decreases the yield and quality of execution. There are several advantages that presents this sport:

- It is never too late for anyone to start practicing fitness exercises;
- It does not take much time training and are very effective;
- The body becomes more robust and more resistant to disease;
- Can reduce the layer of fat in a nice way;
- Heart and circulatory system are involved throughout;
- Can maintain an optimal weight without harsh diets;
- Eliminate the daily stress;
- Cultivating self-confidence.

Not least, it should be considered a beneficial influence on fitness exercises to achieve and maintain an optimal body weight. Weight fluctuations may be caused by issues such as age, sex, type of everyday activity, somatic typology (ectomorph, endomorph, mesomorphic), various biological disorders etc.

Currently, the great variety of forms of fitness to practice, make more people to turn to gyms. Thus, of these forms of fitness are:

A. – maintenance gymnastics, toning gymnastics: tone up, slightly impact aerobics (LIA-low impact aerobic), high impact aerobics (HIA – high impact aerobics), pilates, Yogilates, stretching, master stretch, reebok flexible strenght,

body – home fitness, aerobic Latin dance, Zumba (Zumba Gold, Zumba Toning, Aqua Zumba, Zumbatomic, Zumba in the Circuit), funk cardio-funk jump street dance salsa rose, hip-hop, body jam - city jam, etc.

B. – gymnastics and dance using various objects or devices: dance step (Step – aerobics), power step, fitball, bosu, Kangoo Jumps, body sculpt, power sculpt, elastic-rubber-band, cardio-training, spinning / body- bike, body-pump, chi ball, core training, etc.

C. – gymnastics, dance and disciplines kombat: body attack, tae bo, body kombat, aeroboxing, adidas punch-boxing, a boxing (boxing aerobics), contact drunken aerobickboxing, fit-box, Yoseikan, etc.

Recent studies show that exercise has the effect of improving metabolism (calorie burning) not only during their making, but a while later. Specialists say that in order to lose 1 kg of fat to be burned about 7,700 calories. A regular exercise for 15-20 minutes a day will lead to visible results in a few months. In addition, the scale is the surest measure of the health of the body. A person can have the same weight and burning fat while increasing muscle mass. It is known that diets and have the effect of lowering and muscle mass, as opposed to the fitness, which contributes to an increase in muscle mass at the expense of adipose tissue. For example can be seen below effects of different sports on weight loss (Table 1).

**Table 1. Various physical activities and calories lost per hour**

Physical Activities	Calories lost
running (10 km)	900 calories
swimming (average speed)	270 calories
tennis (simple)	400 calories
skiing	700 calories
walk (5 km)	200 calories
cycling (10 km)	240 calories

The fitness exercises are conducted for overcoming some resistance movements, which can be measured in kilograms namely its own weight, free weights, machines etc. Weight training involves a variety of exercises performed in the gym with your own body weight (pushups,

traction, etc.), free weights (dumbbells, barbells, discs, bars, etc.), which can add isolation exercises, using various devices (banks, pulleys, butterfly machine, presses, etc.). By using free weights lighter than those used by bodybuilders, fitness practitioners pursuing several objectives such as:

- Weight loss by reducing the amount of fat;
- Obtain and maintain a high muscle definition and tone;
- Improving major functions - circulation, respiration etc.;
- Development of motor skills, etc.

Characteristics of exercise:

- sphere of influence biological, physical but also the mental;
- systematically repeated by objectives;
- can adapt according to gender, age, degree of physical training;
- exercise content is determined by body movements or segments;
- is quantified by volume, intensity and complexity.

To achieve these objectives, practitioners may use a variety of exercises included in a program appropriate to the age, sex, level of prior training etc. In addition to exercises with weights, practicing various sports branches and aerobic exercise have a very important role in achieving an optimal state of fitness and ensure a feeling of comfort for the body, the names of these exercises it draws attention to the importance that has breath and adjust them to these exercises. At the same time, it must not forget that aerobic exercise should be associated with the anaerobic (weight lifting) to give the best results. Furthermore, E. Columban (2008) shows that there are similarities as there are differences between exercise and everyday movements (Table 2), the conclusion is that exercise can be practiced by anyone, anywhere, anytime, but anyway.

Aerobic exercise increases the amount of oxygen delivered to muscles and allow it to function at its best for longer. They must be executed over a period of at least 15 minutes without intermission, and for results to be noticeable, it is good to be performed daily, as any activity that increases your heart rate for a longer period of time will result in final improving fitness.

Exercises in terms of planning, it is difficult to set a standard, since the degree of individualiza-

tion is too high, and so it is appropriate to conduct customized training programs, depending on the

particular reactions of each individual body.

*Table 2. Similarities and differences between exercise and daily movements*

SIMILARITIES	
Calls physical and mental stress. Included in driving acts.	
DIFFERENCES	
Physical exercises	Daily movements
It is a voluntary movement.	Not pursue specific objectives related to body or health development.
Its structure is specially constructed to achieve goals, accurately and efficiently.	Not classified in a special process organized.
It is used in a process organized or employed, but observing certain rules	There are selected to determine the effects of natural or organic.
It is built on the basis of principles and rules that ensure the correct orientation of his influence on the body and health	Their main role is to work and travel.
His influences can be set and monitored to determine the desired effects on the physical and psychic	Tangible changes are not predictable and controllable obtained.
It is repeated systematically to increase efficiency and motor skills development	Sometimes deficiencies can develop professional attitudes.
Can develop and improve skills, motor skills and motor skills needed in the labor process	No specific sport skills develop.
Can develop moral qualities, influences affection	Education have very little effect on the psyche.

The Aerobic exercises may be indicated: aerobics, jogging, walking, treadmill, bike, jumping rope, etc.

In conclusion, as no medication cannot remedy the harmful effects caused by lack of exercise, nutrition irrational conjunction with alcohol, tobacco or drugs, an optimal alternative can be a hectic life, the practice of physical activity in organized under the guidance of an instructor specialized in fitness to be an everyday choice. Most of the effects of physical activity, such as higher energy or mental state better, longer occur after

the start of physical activity, and some of the most important benefits occur after several years of regular physical activity. Understand the concept of fitness can help us to cope successfully everyday problems, marked both by physical stress and the mental stress and many diseases contemporary – inactivity, obesity, diabetes, heart disease, depression could be avoided through the practice of regular forms of exercise through a rational nutrition and rest to match.

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