

RECREATIONAL WEIGHT EXERCISE FOR WOMEN

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One gets the impression that the recreational activities moved to the fitness centers where fitness and various types of aerobics have been practiced. There are several important factors that represent great advantage of fitness clubs in relation to other forms of exercise:

1. Time (we can come when we want and stay as much as we want).
2. Social (we can come alone and still have company).
3. Expertise (we can always consult some experts).
4. Comfort (most clubs are well equipped and it is very pleasant to practice there).

There is no single term that would be appropriate for translation of word (concept) "fitness" into Serbian, and therefore we have to use more words and explanations. Following example of the overall explanation is very interesting:

The term FITNESS includes concept of a man with modern lifestyle. This definition has its roots back in Ancient Greece, when a psychophysical union called "kalokagathia" was considered as a lifestyle, which loosely translated means "the unity of body and soul" (Mitić, 2001). [2]

This example shows us the importance of good health. About 80% of the population in the modern world is physically inactive and as such it represents a breeding ground for all kinds of diseases. In fitness, and even more within the broader movement called Wellness (human wellbeing which should be pursued), health comes first. Health should be considered in a broader sense, not merely as the absence of diseases. Health is the ability to adequately respond to the numerous challenges of everyday life and condition for the full-scale realization of potentials in life.

It looks like there has been a division of activities within the fitness centers - men exercise with weights and women practice aerobics. Of course there are a few exceptions, although there are more women who practice with weights than men practice aerobics. It is interesting for us why women don't exercise more with weights. Women prefer to practice aerobics, but it is necessary to have a sense of rhythm, sense for music and coordination, which means that they have to have certain skills in order to practice it, and those that don't have it - fall out at the very beginning. However, space arranged for exercising with weights, called "weightlifting room" or "gym", is usually considered "male territory" by women and space suited for them. They are also afraid that they will lose their femininity and gain increased muscle volume by exercising with weights. In a word, they are afraid of

countering effects of physical training. The reason for this certainly lies in neglecting and insufficient research of this problem. Exercising in the gym is reserved for the male population and all kinds of training programs are adapted to them. It is necessary to avoid "blind" coping of trainings made solely for men to their "women versions".

Weights and simulators can be successfully applied during the women force training in order to achieve satisfactory results, but full attention should certainly be paid to the selection of exercises and exercise equipment.

In physiology, we encounter many studies related to the action of hormones on human body composition. We are particularly interested in sex hormones, the difference between male and female hormones, and especially specificity of sex hormones action on adipose tissue and muscle mass.

Male sex hormone (testosterone) has anabolic effects which is important in sports. Thanks to this hormone men are "stronger sex" as this hormone affects increasing of muscle mass. That means men have increased muscle mass comparing to women thanks to this hormone.

Male sex hormone (testosterone) increases (up to 30%) basal metabolism more than female sex hormone. Women usually have lower basal metabolism because they have a higher percentage of body fat comparing to men. When body mass is reduced to the value measured without body fat, that difference disappears (Nikolić, 1995). Reducing fat and automatically increasing percentage of muscle mass also increases the basal metabolism which induces effect of "natural fat burners" as a form of increasing muscle mass. [1]

Most quantitative data are related to healthy young men, because almost all measurements were performed on men. However, measurements performed on women suggest that the same basic physiological principles may be applied, as in the case of men, with the difference in quantitative values caused by differences in size and composition of their bodies and the male sex hormone testosterone. Overall, the majority of quantitative values for women, such as muscle strength, pulmonary ventilation and cardiac output, and these are all parameters directly proportional to muscle mass, are positioned between two thirds and three fourths of the men's values. On the other hand, when power/cm² of cross-sectional area is measured, women muscles can achieve almost the same maximum force of contraction as man muscles - between 3 and 4 kg/cm². Therefore, most of the difference between the overall properties of the men and women muscles lies in the additional percentage of the male body muscles, caused by endocrine differences. Hormonal differences between men and women are certainly the cause of most, perhaps all, differences in sports ability.

Testosterone, secreted by the testicles, has a strong anabolic effect which means it causes the deposition of protein all around the body. Female sex hormones, estrogens, probably also contribute to the differences between men's and women's sports ability, but not to such extent as testosterone. It is known that estrogens increase deposition of fat in women (Guyton, 1999). [4]

Men develop strength and increase muscle mass more easily and more quickly, but they are greatly assisted by the above-mentioned factors, and thanks to that fact men are more muscular than women. The very nature of female sex hormones has influenced women inclination towards getting extra fat, although they are already likely to have a problem with fat.

We analyzed the effects of weight exercise on a ratio of fat and muscle mass. The assumption was that women subjected to such an intensive treatment would lose more body fat than they would gain muscle mass. The treatment that we applied during this experiment was a progressive weight training model. Weights and simulators were used in this training model as a means of exercise. This is, simply said, the evaluation of the effects of women's training in the gym. After the experimental treatment applied on the measured skinfold variables, there was a significant reduction in adipose tissue. Results of statistical parameters of the measured variables proved that these women did lose a significant amount of body fat during the three-month exercise. Their body weight was also reduced. Influence of the experimental treatment on muscle mass was questionable, and we mentioned in the introduction that women avoid this type of exercise because of the fear of increasing their muscles volume, but it was found that the percentage of muscle mass stayed the same level.

Determining the strength increase directly reflected in the monitoring dynamometry. The way in which power was tested, as we indicated earlier, indicates that the power testing is adapted to the form of physical exercise used in the experiment. There was an increase in endurance and muscle strength, i.e. increase in ability of muscle, respiratory and cardiovascular systems to withstand the mechanical work of relative strength that lasts a while. Arm flexions and legs extensions, as tested power parameters, have shown very good result, and lower extremities had particularly good results in endurance and muscle strength increase. [3]

Weight practicing reduces fat deposits and increases muscle tension. It also has good influence on symmetrically distributed curves and body posture. When it comes to aerobics, it is hard to see results after a short period of time. DIETS: losing weight in a short period of time, but the lost weight quickly returns. Women have a slower metabolism and less muscle than men -deposits of fat settle before fat get burned up in the form of energy. DANGER that comes with diet - we can't reduce the existing amount of body fat by simply reducing fat intake.

Diets can easily lead to reduction in the amount of smooth muscle tissue, which slows down metabolism, which means that diet results are short-lived. MISCONCEPTIONS: Damage to the genitals, difficult childbirth, absence of menstruation. In fact, it is the other way around: weightlifting ensures opposite effect. Childbirth will be even easier because of the strength and tonus of abdominal muscles. Menstrual cycle may be absent during training, but never because of the lifted weights, but because of the lack of body fat that would occur under restrictive diets, if the percentage of fat falls below 10%. With increasing of the fat level, cycle also becomes normal. Although estrogen gives them headaches by causing accumulation of body fat, it also protects women against heart disease in menopause. Testosterone in men works in the opposite direction. Animal studies have shown that large amounts of testosterone often cause chronic illnesses in animals.

This research has shown that women, in the same way as men, can freely exercise at the gym, and thus satisfy their needs for physical activity. Data from the website of the Ministry of Sports are encouraging and prove that this problem is very interesting. The Ministry has announced submitting of projects related to sports leisure activities. Accepted projects will receive considerable sum of money for their realization. The Ministry declared that they will give priority to projects that engage physically inactive population, primarily female population.

Literature

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