

Management Guidelines on Healthy Physical Fitness

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Doing exercise is one of the recreational activities that everyone has equal opportunity, economical and without distance limitation. So-called everyone can do exercise, and exercise can be adopted at anytime and anywhere are the exact features of sports. Therefore, the knowledge of sports training not only has the function of inducing active participation, but also serves as a necessary process of obtaining goal of health.

Setting the goals of health

According to the data from American College of Sports Medicine, the relevance among the health promotion goals in exercise interventions, actual outcomes, and life adaptation are:

1) Cardiovascular fitness

Optimal cardiovascular fitness shows in stroke volume increasing, resting heart rate decreasing, red blood cells increasing, sufficiently blood supplies in organs, and resting blood pressure decreasing. Poor cardiovascular fitness is related directly to heart diseases, and death caused by this factor is much.

2) Muscle strength

Muscle strength is particularly important in the leisure activities. Larger muscle mass indicates higher metabolism and

more energy expenditure. Muscle strength enhancement can not only improve the efficiency of physical activities in daily life, but also effectively decline the degeneration of muscle functions.

3) Muscular endurance

Muscular endurance is a significant factor to keep good posture and to prevent sports injuries. People with optimal muscular endurance are more capable of long-time physical activities without fatigue, and can keep fully energetic status all the time.

4) Flexibility

Although whole range of motion in joints is not necessary in daily life, inactive lifestyle might make joint stiffer with aging, directly influence the body posture, and induce low-back pains.

5) Body composition

Healthy body composition refers to high-portion net weight and appropriate portions of body fat (proportionally adjusted by genders and age). Excessive body fat often results in heart diseases, high blood pressure, cerebral hemorrhage (stroke), joint problems, diabetes, gallbladder diseases, cancers, back pain and so on. The ideal preventive approaches are daily diet control and regular exercise. Regarding to the choices of exercise modes, it is better to do long-time aerobic activity to lower body fat and adopt weight (resistance) trainings to increase net weight.

6) Sports-related fitness

Physical fitness related to sports skills includes coordination, speed, reaction time, agility, balance and skills. All these adaptive capabilities involving exercise efficiency can be improved or enhanced by the choice of exercise mode

Follow the principles of sports trainings

1) Specificity

The specificity of sports training means that different types of exercise show different exercise effects. Weight training can enhance strength and muscular endurance, but can't induce training effects on joint flexibility. Stretching exercise can effectively improve joint flexibility, but can't improve cardiovascular endurance.

2) Progressive overload

Exercise trainings indicate a long-time exercise progress. During the process of doing regular exercise, overall physical condition will gain adaptive effect by continuous exercise stimulation. The exercise stimulation from the same exercise volume as previous stage can't trigger disturbance of physical status after adaptation achieved. At that time, more exercise or more vigorous sports might be required. Therefore, in order to achieve the goals of exercise training, exercise volume should be elevated properly and progressively.

The component of exercise volume includes exercise fre-



quency per week, exercise intensity and exercise duration in each session.

3) Reversibility

The adaptation effects obtained from exercising for a long period of time might return back to the initial status within 1 or 2 weeks after stopping exercise training. This is called the reversibility of exercise training effects. Therefore, in order to avoid such reversibility, people need to keep doing 2- to 3-times regular exercise per week to maintain the training effects at an ideal level.

Make exercise training program

1) Evaluate one's fitness level

2) Set concrete goal of exercise training

3) Deliberately choose exercise type, and mixed training is highly recommended, including:

1. The sports approach to improve cardiovascular endurance;
2. The sports approach to increase muscle strength or/and muscular endurance;
3. The sports approach to increase flexibility;
4. The sports approach to improve body composition;
5. To enhance sports-related physical fitness elements.

4) Accept exercise training instruction:

1. Complete the training programs according to the goals.
2. Develop regular exercise habit.
3. Adopt progressive overload principle: increase the exercise duration and frequency before increasing exercise intensity.
4. Warm-up and cool-down must be included into the training plan.
5. During the training process, it is alright to follow the "listen to your heart and feelings" flexible policy.
6. Encourage doing exercise with partners.
7. Strengthen the will to do exercise training.
8. Look forward to continuing the exercise training program.

Self-training actions

1) Goals of self-training

Based on personal interest, physical conditions, and opportunities for doing exercise, choose at least one exercise that meets one's demands or conditions. It would be necessary for modern people, and it should be the best exercise for the individual. However, why should people do exercise? What are your targets to do exercise? These questions are not easy to answer, because exercising for exercising is a really common scenario. Thus, before you do exercise, please set a personal goal in order to achieve efficiency and effec-

tiveness. According to the survey, the motivations to take part in exercise are briefed as followed:

1. For the reason of health;
2. For the reason of figure;
3. For the reason of entertainment;
4. For the reason of honor;
5. For the reason of career.

2) Content of self-training

Under the goal of developing health-related physical fitness in self-training, it is necessary to further comprehend the content of health-related physical fitness. Health-related physical fitness refers to an individual's muscle strength, muscular endurance, flexibility, cardiopulmonary circulatory endurance and body composition. All these 5 elements should comply with the demands of physical health.

3). Self-training methods

1. Muscle strength and muscular endurance training

There are 4 types of muscle contraction, including isotonic contraction, isometric contraction, isokinetic contraction, and eccentric contraction. In the application of overload principle, the diameter of muscle fiber gradually enlarges so as to strengthen muscle strength. Generally speaking, in order to gain largest muscle strength and stocky muscles, the common approach is to carry out high-load with low-repetition exercise. While in training muscular endurance, low-load with low repetition exercise is practiced. In terms of sports equipment, barbells and other weight fitness equipment is not easily got for everyone. Therefore, using one's weight as load is not a bad idea as an economical and practical training method. For examples, performing sit-ups with bending knees, stretching back upward with body

lying down and facing downward, lying on the side and lateral flexion, half pike, push-ups, chin-ups, running and walking upstairs and other methods are all good approaches to improve muscle strength and muscular endurance.

2. Flexibility training

The best training to increase flexibility is stretching. It can increase not only flexibility but also muscle strength and muscular endurance. The advantages are effective and repetitive. Moreover, it can be adoptive according to individual levels of physical fitness. The procedure and methods could be diverse so as to have muscle fully stretched, relaxed, formed and strengthened. However, it is essential to note that postures or actions shall be proper so as not to force body. Supposed that you have not done regular exercise, you need to spend some time stretching the unused and tensed muscles. There are some stretching methods: 1. Upper arms surround with each other; 2. Sit-ups; 3. Turn and twist the body; 4. Bend the body side; 5. Uplift legs; 6. Uplift legs to the side; 7. Stretch low back; 8. Uplift arms and legs; 11. Stretch Achilles' tendon and calves; 12. Stand stretching quadriceps femoris muscles.

3. Cardiopulmonary circulatory function training

The training point of cardiopulmonary circulatory system is that the time span of doing exercise should be long enough. Usually it shall be at least 20 to 30 minutes. Or even longer rhythmic activities can improve cardiovascular function. For example, jogging and walking are the most feasible sports. Cycling, swimming or other continuous sports are also good choices to give enough stimulus to the heart and lungs. Normally in the first few weeks of cardiovas-

cular training, it is unavoidable to get muscles and joints soreness. This uncomfortable feelings are the results that you give new command to the muscles. If you do it in a right procedure, the initial uncomfortable feelings won't serve as barriers for your development, and soreness will be gradually relieved.

4. Body composition training

The training of body composition aims to decrease excessive body fat, to increase body net weight, and to enhance sports adaptation. Many people believe that abnormal metabolism is the major cause of overweight problem. However, it is not true. The medical experts think that endocrine dysfunction is the cause of obesity. Besides, experiences also let us know that sedentary lifestyle is the real reason that we cannot burn enough calories thus body fat accumulates. Therefore, for burning extra fat weight, we need to work on exercise and diet control. Only then, we can achieve the expected result. Particularly, when we do exercise, we need to make sure to burn fat during exercise. It is quite easy to achieve. As long as we increase the time span of doing exercise. It is effective to simply keep the exercise intensity level above jogging. Next, as to diet control, the key is to make sure the intake energy (calories) is equal or less than that which exercise consume. Thus weight can be efficiently under control.

Conclusions

- 1) Everyone can arrange exercise into daily schedule, and enjoy benefits from the improvement of health status
- 2) Health-related physical fitness includes cardiovascular endurance, muscle strength, muscular endurance, flexibility, body composition and other elements. Skill-related physical fitness includes coordination, speed, reaction time, agility, balance, skills and other elements.
- 3) The principle of progressive overload indicates the quantitative application of exercise intensity level, frequency, time span and other conceptual nouns.
- 4) Sports instruction make sports training plan more efficiently.
- 5) Low level of activity cannot make the body create adaptive effects.
- 6) For most of the people, exercise shall be safe activities. But for male older than 40 years old, or for females older than 50 years old or for those with health problems should consult with doctors before engaging in any vigorous exercise plan.
- 7) Though there are individual differences of physical fitness or sports performances. Everyone can setup exercise goals and make best out of themselves.
- 8) Proper time management is the significant skill to realize the exercise plan.