

# *Research on the Effect of Pedal Exercise on the Body Shape and Physical Quality of Female College Students*

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**Keywords:** Pedal exercise, Female college students, Body shape, Physical fitness

**Abstract:** Today's female college students are increasingly pursuing beauty and health. Female college students participating in aerobic exercise can not only shape beautiful body lines, but also help enhance all aspects of the body's quality. Aerobic pedal exercise has become one of the most popular sports for female college students. Through pedal exercise training, the figure and health index of female college students have been improved. This paper briefly studies and discusses the impact of pedal exercise on the body shape and physical quality of female college students.

## 1. Introduction

Pedal exercise is a kind of aerobic exercise introduced from the United States. The height of the pedal can be adjusted, and people standing on it can follow the music for regular movement<sup>[1]</sup>. Pedal exercise can not only improve body shape, enhance physical fitness, but also play a role in regulating emotions, inspiring morale and enhancing confidence, so it is deeply loved by female college students.

## 2. Effect of Pedal Exercise on the Body Shape of Female College Students

### 2.1 Effect on Weight

The influence of pedal exercise on the weight of female college students is obvious. The survey shows that after some colleges and universities have added step aerobics to their physical education classes, girls have actively engaged in practice, and after a period of training, their weight has dropped. This is because pedal exercise belongs to aerobic exercise with certain intensity. Female college students will always consume body heat in the process of training, so as to achieve the effect of fat reduction. When the proportion of fat in the body is reduced, the weight will naturally be reduced. Pedal exercise has a good effect on weight loss. Through this sport, the obesity rate of female college students has been reduced, so it has also enhanced their self-confidence and personality charm to a certain extent.

### 2.2 Effect on Leg Circumference

Pedal exercise can also have a certain impact on the leg circumference of female college students. Female college students in many colleges and universities have significantly reduced their thigh

circumference after practicing pedal gymnastics for a school year. This is because the training of pedal gymnastics basically uses their legs to exert force. Therefore, female college students who often practice pedal gymnastics consume a lot of leg fat. Compared with other sports, pedal gymnastics is more helpful to reduce girls' leg circumference. In addition, pedal exercise can not only reduce the circumference of the thigh, but also have a certain impact on the circumference of the lower leg. However, the change of calf circumference is not very obvious compared with other sports, because although pedal exercise can exercise leg muscles, its training action does not have high requirements for calf support strength, and the overall intensity of exercise is relatively low, so it also shows that pedal exercise is really suitable for girls to practice.

### **2.3 Effect on Waist Circumference**

The effect of pedal exercise on the waist circumference of female college students is also very significant. After half a school year of step aerobics training, the waist circumference of female college students has also been greatly reduced. Firstly, pedal exercise is a whole-body exercise, which can exercise the whole body of a person, thereby consuming body fat including the waist<sup>[2]</sup>. Secondly, pedal exercises are almost all exerted by the core strength of the waist. Female college students will develop the habit of exerting strength with the waist when stepping aerobics. Over time, the waist fat will be consumed a lot, thereby reducing the circumference of the waist.

## **3. Effect of Pedal Exercise on the Physical Quality of Female College Students**

### **3.1 Impact on Strength Quality**

#### **3.1.1 Effect on Upper Limb Strength**

Upper limb exercise is a very important content in pedal exercise. Because the practice of upper limb movement usually has strong control and positioning, pedal exercise will have a great impact on the upper limb strength of female college students. Female college students can often do some exercises to enhance arm strength, such as push ups and flat support, which can significantly strengthen the muscle strength of the upper limbs and make the body shape look more powerful.

#### **3.1.2 Effect on Lower Limb Strength**

Pedal exercises mostly use jumping movements. Female college students often do such exercises, which can enhance the flexibility of bones and joints and the elasticity of muscles. In addition, it can also enhance their leg strength and muscle explosiveness. In the process of pedal exercise, the joint ligaments and various muscle groups of the body will coordinate and cooperate with each other to make the blood of bone tissue circulate more, so as to increase bone density, thicken and thicken bones, and greatly improve the compression resistance and toughness of bones<sup>[3]</sup>. At the same time, during pedal exercise, it will also increase the movement range of ligaments and joints, increase the muscle area, and increase the number, area and elasticity of myofibrils, so as to expand the muscle tissue of the legs and finally enhance the strength of the lower limbs.

### **3.2 Impact on Endurance Quality**

Endurance refers to the ability of people to resist fatigue during long hours of work and exercise. When the body is fatigued, it will seriously affect or even restrict the continued movement of exercise. The endurance quality of an individual can be judged from the anti-fatigue ability shown during exercise. Pedal exercise is a combination of upper and lower limb movements with the

rhythm of music in a certain period of time, including jumping sports with a certain intensity, which requires female college students to have strong endurance, and pedal exercise just exercises the endurance quality of female college students. Generally speaking, students who practice aerobic pedal exercises for the first time can only last for 15-30 minutes. After a long time of pedal exercise training, their exercise time will gradually increase, which can last for 30-60 minutes or even longer. This is because regular practice of pedal exercise not only improves the strength of muscles, but also strengthens the endurance of muscles and the ability of respiratory system. In this way, female college students can obtain sufficient oxygen intake during pedal exercise, so as to improve their functional level and endurance quality, and gradually form a virtuous circle.

### 3.3 Impact on Flexibility

Flexibility can also be well exercised during pedal exercise. Because some pedal exercise have a large range of action, and there is a certain degree of stretch and stability, so female college students are required to have better flexibility. Flexibility is not only required for sports, good flexibility can also play a good role in protecting the limbs during exercise. The flexibility quality is determined by the stretching of human joint tissue structure and cross joint muscles and ligaments<sup>[4]</sup>. When female college students are doing pedal exercise training, some kicking and jumping movements are very helpful to increase the movement range and extension of their ligaments and muscles, and improve the elasticity of muscles, tendons and ligaments, so as to exercise their flexibility. When the flexibility is improved, it will be easier and more standard to do the same action, and they can gradually increase the range of motion.

### 3.4 Influence on the Coordination Quality

The biggest feature of pedal exercise is to exercise on the pedal. It often needs to jump or convert various actions forcefully and quickly, and the rhythm is also relatively fast, which requires that all joints and parts of female college students should coordinate with each other. Therefore, regular practice of pedal exercises can make the limbs of female college students more flexible, so as to effectively improve their physical coordination quality.

## 4. Conclusion

Pedal exercise is a kind of aerobic exercise, which can effectively enhance the muscle strength of legs and improve the accumulation of fat in various parts of the body. Especially for female college students, it is very helpful to shape perfect body lines and enhance personal temperament and charm. At the same time, it has the functions of strengthening the heart and strengthening the body, so regular pedal exercise training has high fitness value for contemporary female college students and other groups.

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