# The Prevention and Nursing Care of Common Injuries in Long-Distance Running of College Students

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### **ABSTRACT**

As a favorite sport of teachers and students, long-distance running can enhance physical fitness. However, due to nonstandard movements in sports, teachers and students get injured psysically. Taking the prevention of long-distance running injuries of teachers and students in colleges and universities as the research goal, this article investigates the teachers and students of a physical education college in Shanxi Province by means of questionnaire survey, counts the functional indexes of teachers and students in long-distance running for one year and analyzes the injuries. The results show that the injury rate of teachers and students is 45.5%; Teachers and students with only one injury are the most, and knee injuries are the most common, with a mild injury rate of 60.98% and concentrated in November-December and June-July. The main reasons for the injuries of teachers and students are poor physical fitness, insufficient warm-up, and poor sports equipment. Through full warm-up exercise and adequate rest, common injuries in long-distance running can be effectively prevented.

### **KEYWORDS**

Health Care and Prevention, Long-Distance Running, Questionnaire Survey, Sports Injury

### INTRODUCTION

With the continuous improvement of people's living standards and health awareness, long-distance running is increasingly favored by teachers and students in colleges and universities. Long-distance running can not only enhance physical fitness and improve cardiopulmonary function but also help relieve the pressure of study and work and promote the healthy development of body and mind. However, there is a certain risk of injury in long-distance running, which may adversely affect the health and sports ability of athletes. Long-distance running is the most common joint injury. Long running times have a great impact on the knee, ankle, and hip joints, leading to joint cartilage wear, synovitis, arthritis, and other joint injuries. At the same time, long-time repeated exercise is also likely to lead to ligament and tendon damage, leading to muscle damage. Long-distance running may also cause cardiovascular problems. Long-term and high-intensity exercise increases the burden on the heart, which may lead to cardiovascular diseases such as arrhythmia, myocarditis, and myocardial infarction. Long-distance running is a beneficial physical and mental exercise for teachers and students

DOI: 10.4018/IJHISI.334120 \*Corresponding Author

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in colleges and universities. Mastering the injury categories of long-distance running and taking appropriate preventive and health care measures is helpful to better enjoy the fun of long-distance running and maintain physical health and sports ability (Tonoli et al., 2010).

Some progress has been made in the research on common injuries and healthcare interventions of teachers and students in long-distance running in colleges and universities (Gallo et al., 2012). Some researchers have studied the types and incidence of injuries in long-distance running. Sports injuries mainly include muscle strain, ligament sprain, arthritis, and stress fracture. The occurrence of injuries is related to factors such as exercise intensity, training methods, and individual differences. Different preventive measures are put forward, and the risk of muscle strain can be reduced through proper warm-up and stretching activities; a reasonable training plan and running posture can also reduce the incidence of injuries.

Some researchers have studied the influence of psychological factors on injury prevention and healthcare intervention and concluded that stress and anxiety might increase the risk of sports injuries, while positive attitude and appropriate coping strategies can reduce the occurrence of injuries (Cupal, 1998). Some researchers proposed using new applied technology to prevent and intervene in the injuries of long-distance running between teachers and students in colleges and universities. By using a motion tracker and a biomechanical analysis system, we can help to monitor the posture and load of sports, provide personalized training suggestions, and improve teacher and student awareness and awareness of injury prevention of long-distance running through education and publicity activities, such as conducting health education courses, holding lectures and publishing publicity materials.

Some researchers have studied the rehabilitation and treatment of long-distance running injuries and found that the main injuries are knee joint injuries. Through a series of rehabilitation measures such as physical therapy and functional exercise, teachers and students can recover as soon as possible and reduce the risk of re-injury. At the same time, ultrasound therapy and electrotherapy can be used to improve the rehabilitation effect. Some researchers have studied the common injury parts of long-distance running and their prevention. Through literature review, it is concluded that the common injury parts of long-distance running include feet and stomping parts, calves, knees, thighs, and waist and back. Through reasonable exercise intensity and appropriate training methods, we can improve our own structural physiological weaknesses and overcome the interference of psychological obstacles, venues, weather, and other factors. Some researchers have studied the common injuries of athletes in the marathon and the measures to prevent them. The main causes of long-distance running injuries are muscle imbalance, muscle and ligament strain, and inflammation caused by long-term friction of muscles. Therefore, it is necessary to maintain a balanced development of strength, speed, and flexibility in marathons while making full preparations.

Some researchers have studied the common sports injuries in middle and long-distance running and their preventive measures. Through the methods of literature investigation, consultation and interview, questionnaire survey, and mathematical statistics, this paper presents a statistical analysis of the types, positions, and course of injuries of 50 medium- and long-distance running athletes in sports schools and puts forward preventive measures. The sports injuries of medium- and long-distance running athletes mainly involve strain, sprain, and overwork, involving injuries on the feet, knees, and calves (Leistra, 2022). The course of sports injuries can be divided into acute and chronic. Teachers should arrange teaching, training, and competitions reasonably, and impart some emergency handling skills for sports injuries.

Some researchers have studied the methods of prevention and treatment of sports injuries from medium-distance running. By analyzing the potential factors of sports injury, they concluded that the main way to prevent injury is to reasonably arrange the training intensity to prevent the local load of lower limbs from being too concentrated. At the same time, physical education colleges should strengthen students' physical exercise, and students should master standardized skills to reduce sports injuries caused by technical irregularities. Schools should establish reasonable sports venues and regularly organize inspections of the safety performance of venues and equipment, and instruct students

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