

Common Sports Injuries and Preventive Measures for Athletes

—Take The Track and Field Team Athletes in Yushan County as an Example

Jieqiong Xie

Jiangxi Normal University, Nanchang 330000, China

Email: 2323255742@qq.com

Abstract

Taking the common sports injuries and preventive measures of Yushan County middle school track and field athletes as the research object, the sports injuries of Yushan County middle school track and field athletes were investigated and analyzed from the angle, type, location and nature of sports injury. Research on sports injury problems, trying to find the causes of sports injuries in daily training of track and field athletes, and proposed targeted preventive measures based on the specific situation of Yushan County Middle School. The results show that 77.70% of track and field athletes have suffered sports injury and periostitis and ligament / muscle strains are the most common forms of injury, and lower limbs are more prone to sports injuries than upper limbs.

Keywords: *Middle School; Track and Field; Sports Injuries; Preventive Measures*

INTRODUCTION

Middle school track and field training is an important part of China's track and field system. Excellent track and field athletes are trained for many years, and training in the middle school period is the starting point of the entire training career. Special attention should be paid to comprehensive quality training to lay a solid foundation for subsequent training. Many middle schools in Yushan County have formed track and field teams. However, there are problems such as school training infrastructure and the professionalism of coaches. For example, some coaches of Yushan County middle school track and field team did not develop detailed and specific training plans during training. Teaching experience, high-intensity training, etc. can cause athletes to suffer injuries. Once athletes have sports injuries, they will not only seriously damage their physical health, but also affect track and field training. Therefore, during the training process, each person should develop a detailed and specific training plan to improve them. Results.

1 SPORTS INJURIES OF TRACK AND FIELD ATHLETES IN YUSHAN COUNTY MIDDLE SCHOOL

1.1 Statistics of Track and Field Types and Sports Injuries

TABLE 1 TRACK AND FIELD TYPES AND SPORTS INJURY STATISTICS (N = 148)

project	track	Tian Sai	total
Number of injured	71	44	115
percentage	78.89%	75.86%	77.70%
No injuries	19	14	33
percentage	21.11%	24.14%	22.30%
total	90	58	148
percentage	100.00%	100.00%	100.00%

The track and field types are divided into two categories, track and field competitions, and surveys are conducted based on this. The data shows that the middle school athletes in Yushan County have a high proportion of sports injuries.

1.2 Statistics of Types of Track and Field Sports Injuries

TABLE 2 STATISTICS OF COMMON TYPES OF INJURIES IN TRACK AND FIELD (N = 115)

	Frequency	Track ratio	Frequency	Field Ratio	Frequency	Total ratio
Bruises	4	5.63%	7	15.91%	11	9.57%
periostitis	28	39.44%	8	18.18%	36	31.30%
Ligament / muscle strain	23	32.39%	22	50.00%	45	39.13%
Herniated disc	4	5.63%	2	4.55%	6	5.22%
Sprain of joint	10	14.08%	5	11.36%	15	13.04%
Dislocation / fracture	0	0.00%	0	0.00%	0	0.00%
Tenosynovitis	0	0.00%	0	0.00%	0	0.00%
Bursitis	2	2.82%	0	0.00%	2	1.74%
Meniscus injury	0	0.00%	0	0.00%	0	0.00%
total	71	100.00%	44	100.00%	115	100.00%

According to the data in the table, whether it is track or field, the most likely types of sports injuries for athletes are periostitis and ligament / muscle strains. During the exercise, if the athlete is too hard, the muscles will compress or stretch excessively. With the limit of muscle tolerance, muscle strain is prone to occur, as is the ligament.

1.3 Statistics of Sports Injury Sites

TABLE 3 STATISTICS OF SPORTS INJURIES OF TRACK AND FIELD ATHLETES (N = 115)

Injury site	Track frequency	proportion	Field frequency	proportion	Frequency	Total ratio
thigh	19	26.76%	18	40.91%	37	32.17%
Calf	28	39.44%	8	18.18%	36	31.30%
Head and face	0	0.00%	0	0.00%	0	0.00%
Shoulder	2	2.82%	0	0.00%	2	1.74%
Elbow	1	1.41%	0	0.00%	1	0.87%
forearm	0	0.00%	0	0.00%	0	0.00%
Wrist	0	0.00%	2	4.55%	2	1.74%
Chest and	0	0.00%	0	0.00%	0	0.00%
Lower back	6	8.45%	6	13.64%	12	10.43%
Hip	1	1.41%	0	0.00%	1	0.87%
lap	6	8.45%	6	13.64%	12	10.43%
Ankle	8	11.27%	4	9.09%	12	10.43%
total	71	100.0%	44	100.0%	115	100.00%

From the data in the table, it can be seen that the most vulnerable parts of track and field athletes in Yushan County middle school are the lower back and lower limbs. For track events, thighs and calves are the most prone to sports injuries, accounting for 66.20%, followed by ankles, accounting for 11.27%, and waists and knees, accounting for 8.45%. For the field events, the probability of sports injuries in the thighs reached 40.91%, the largest number, and the calves were relatively small, but the proportion also reached 18.18%, again for the lower back and knees, accounting

for 13.64 %. In general, sports injuries rarely occur on the head, face, shoulders, elbows, forearms, wrists, chest, abdomen, and hips. This is mainly determined by the characteristics of track and field events. Most track and field events require lower limb strength, so lower limbs are prone to appear. damage.

2 CAUSES OF SPORTS INJURIES IN TRACK AND FIELD ATHLETES OF YUSHAN COUNTY MIDDLE SCHOOL

2.1 Middle School Students' Own Reasons

TABLE 4 STATISTICAL TABLE OF SPORTS INJURIES CAUSED BY MIDDLE SCHOOL STUDENTS (N = 115)

Inducement	Frequency	proportion
Wrong technical action	61	53.04%
Unprepared activity	28	24.35%
Overload exercise	14	12.17%
Low fitness	2	1.74%
Excessive fatigue	0	0.00%
Injury / Illness Training	2	1.74%
Unreasonable recovery measures and time	2	1.74%
Inattention	5	4.35%
Inadequate self-protection	1	0.87%
total	115	100.00%

It can be seen from the table that the probability of sports injuries caused by wrong technical actions is the highest, accounting for 53.04%, because some students have a short time in training, and they have not fully mastered the key technical actions, which causes sports injuries. The proportion of good and adequate preparation activities is 24.35%. The excitability of the nervous system and the elasticity of muscles can be improved through preparation activities. Therefore, sufficient preparation activities can be done to reduce injuries.

2.2 Reasons for Coaches

TABLE 5 STATISTICAL RESULTS OF SPORTS INJURIES CAUSED BY COACHES (N = 115)

Inducement	Coach experience	Understanding of sports injuries	Coach makes reasonable
Yes	Frequency	37	48
	proportion	32.17%	41.74%
general	Frequency	78	67
	proportion	67.83%	58.26%
no	Frequency	0	0
	proportion	0.00%	0.00%
total	Frequency	115	115
	proportion	100.00%	100.00%

The survey was conducted from three aspects: coaches 'rich experience in teaching, their understanding of sports injuries and first aid methods, and the rationality of coaches in formulating training plans. According to the data in the table, coaches' teaching experience is not very rich. Most of the methods are understood, and the coaches think that the training plan is general.

3 PREVENTIVE MEASURES

3.1 Preventive Measures for Coaches

In the daily training, the training plan should be scientifically formulated in advance in accordance with the specific circumstances of the students, especially the training time and intensity of the student-athletes. Take reasonable sports teaching methods for the athletes to ensure that the training process is reasonable. Understand sports injuries The law of emergence and development protects the parts that are prone to injury during the training process, and adopts a step-by-step mode to carry out training. Actively take effective measures to prevent the parts that are prone to sports injuries from occurring.

3.2 Athletes' Own Precautionary Measures

Athletes should pay attention to it and fully understand the causes and harms of sports injuries. Before starting each track and field training, you must make adequate preparations to stimulate the nervous system in the body, increase the excitement of the nervous system, relax the muscles in the body, and The functions of various organs in the body are mobilized to suit the subsequent track and field training. In addition, after the training, you should also do related relaxation activities to ensure that the body functions slowly return to normal. You should do well before and after Only with sufficient preparation can athletes avoid sports injuries.

4 CONCLUSION

The most common types of sports injuries in track and field athletes in Yushan County middle school are periostitis and ligament / muscle strains. The ratio of the two in the track competition is 39.44% and 32.39%, and the ratio of the two in the field competition is 18.18% and 50.00%, respectively. In the track events, thighs and calves are most prone to sports injuries, accounting for 66.20%, followed by ankles, lower backs and knees. In the field event, the probability of thigh sports injury reached 40.91%, and the rate of calf injury was 18.18%. Acute sports injuries accounted for 62.61% and chronic injuries accounted for 37.39%. The athletes themselves are the main cause of sports injuries. Among them, the proportion of sports injuries due to wrong technical actions is 53.04%. The ratio of adequate preparation activities is 24.35%, the proportion of overloaded sports is 12.17%, and the sports injuries caused by other reasons are relatively small. The reason for coaches is also the factor that induces sports injuries, mainly with coaches. The degree of experience, the degree of understanding and mastery of sports injuries and first aid methods, and the rationality of the training plan are related. It is necessary to make adequate preparations before and after the event to avoid sports injuries.

REFERENCES

- [1] Chen Keliang. Investigation and Research on Athletic Injuries of Sports Specialty Students in Dong'an No.1 Middle School [j]. Contemporary Sports Science and Technology, 2018 (9): 98-99.
- [2] JIA Jinshan. Research on Common Sports Injuries and Preventive Measures in Track and Field Training [j]. Journal of Suzhou Education Institute, 2018 (1): 85-86.
- [3] Bai Guoyan, Qi Jianguo. Reason analysis and prevention of track and field athletes' sports injuries [j]. Contemporary Sports Science and Technology, 2018 (7) 4-6.
- [4] Zhu Wanning, Yang Yuxuan. Research on Methods of Preventing Sports Injuries in Track and Field Teaching and Training [j]. Science & Technology Horizons, 2018 (11): 1-2.
- [5] Qian Feng. Analysis and countermeasures of sports injuries caused by track and field athletes in physical education training [j]. Sports Goods, 2018 (5): 78-79.
- [6] Mai Jiadi. Research on common sports injuries of high-level track and field athletes in Beijing universities [d]. Beijing Sport University, 2017: 63-65.
- [7] Zhao Dong. Investigation and Analysis of Injuries and Injuries of Excellent Track and Field Athletes of Sichuan Province in Preparation for Tianjin National Games Training Period [d]. Chengdu University of Sport, 2017: 21-26.
- [8] RoaldBahr, LarsEngbretsen. Prevention of sports injuries [M]. People's Medical Publishing House, 2011: 63-78.
- [9] Edited by Wang Lin et al. Sports injury and first aid [m]. Beijing Sport University Press, 2006: 104-109.

- [10] Zheng Hongwei. Sports injury and functional recovery [m]. People's Sports Publishing House, 2001: 58-69.
- [11] Wang Fujun. Effects of physical training on track and field athletes' injuries [J]. Stationery & Sports, 2017 (13): 166-167.
- [12] Liu Hechen. Optimization modeling and simulation of the relationship between high-intensity track and field training and sports injury [J]. Computer Simulation, 2017, 34 (3): 336-339.
- [13] Zhang Jianyun, Huang Donghua, Zheng Xin, et al. Research on Sports Injury and Rehabilitation Training of Adolescent Track and Field Athletes [J]. World Latest Medical Information Digest, 2017 (79): 14-15.

AUTHORS



Xie Jieqiong (1996-), female. Reseach direction: Sports Human Science.

Learning experience: Bachelor degree in Social Sports Guidance and Management from the School of Science and Technology of Jiangxi Normal University, now studying at the Master of physical education in Jiangxi Normal University.

Email: 2323255742@qq.com