



SECURITY MEASURES AGAINST INJURIES IN GYMNASTICS

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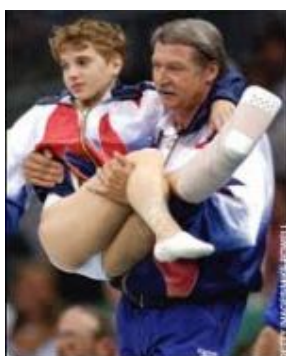
ABSTRACT

Present Qualitative paper throw light on safety measures to safe gymnasts from injuries since gymnastics is a most technical and injury prone game. A gymnast is always at a risk for injuries. Some of these injuries are traumatic, meaning they result from specific falls, landings or due to improper arrangements during training. The gymnast, once injured, is either forced to discontinue the training for a definite period or he is asked to perform the exercises without using his entire strength. Most of the common gymnastics' injuries are caused by the overuse, and they can worsen with continued training through the pain. Likewise, serious shoulder, elbow, and traumatic knee injuries can occur during the complex routines. If there is any question whether the gymnast might make an injury worse by continuing to train or compete, she should consult an orthopaedic surgeon. Hence, a fear of injuries is always noticed in the minds of gymnast and they cannot perform that very element or combination for which they have already competed. Necessity arises to highlight the security measure to curb such unsolicited situation.

KEYWORDS: *Gymnast, Gymnastics, injury, equipment, training, competition, pain, sprain, fracture, ACL*

INTRODUCTION

American gymnast Danell Leyva said, "Everybody knows gymnastics is the hardest sport in the world and if you don't know it, you don't know about gymnastics." In 2012, Ohio State University identified gymnastics as the most dangerous sport for girls, with nearly 27-thousand gymnasts hospitalized each year. Due to the large number of gymnasts training at high levels, both acute and overuse injuries are very common in gymnastics. The dangers and risks gymnasts take when they push their bodies through the air. In terms of danger, the stakes are highest for elite gymnasts who perform the riskiest of skills. Years of training and dedication culminate in a fleeting bid for glory, the outcome of which can decide gymnast's future in the sporting world. Even their mastery, with the watchful eye of a skilled coach, is not enough to prevent catastrophic injuries.



KERRI

STRUG COURTESY:

In 1987 during Rotterdam World Championship, Tim Daggett, the United States' top gymnast fell and broke his left tibia. The accident occurred while Daggett was competing in the vault event of the team competition. A loud crack sounded as he landed. He stumbled backward and crumbled to the floor.

During 1996 Summer Olympics in Atlanta, America's Kerri Strug had a heroic final vault with a third-degree lateral ankle sprain during her first attempt on the vault. Despite of her injury she rose to her feet, blocked out the pain, and went on to perform her second attempt (while landing on one ankle), securing the gold medal for Team USA in the process. If Strug had not performed a second vault, as the lowest score for each team was dropped. She pulled it out, mathematically clinching the gold medal for the U.S. women's team. Her coach, Bela Karolyi, carried her in an iconic picture we've all seen.

During 2000 Olympics Games, Kristen Maloney, then 19, sprints down the runway and performed her first attempt at a double-twisting Yurchenko. Her hands spring off the board, she whips over the vault and lands awkwardly, a bit short. She had stress fracture and a rod and was in extreme pain even then she performed her second vault and sticks it that showed her inner strength of toughness.



Kristen Maloney, Sydney 2000



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At the 2000 Summer Olympics in Sydney, Hungarian gymnast Adrienne Nyeste took one of the nastiest falls we've ever seen. While performing a routine on the uneven bars, Nyeste lost control, flew through the air off the high bar, and slammed face-first into the mat. Although she laid on the ground motionless following the incident, Nyeste eventually rose to her feet, having avoided what could have been a catastrophic injury.

During 2011 Goodwill Games at....a seventeen years old women Chinses gymnast Sang Lan was injured her neck while attempting a forward vault during warm-ups and lost control in the mid-air, striking the ground head first and was paralyzed. She was not been able to move her legs and had a minimal amount of motion in her arms.



SANG LAN COURTESY:GRETTY PICS



At 2016, Rio Olympic Games, 26 years old France's Samir Ait Said landed awkwardly on vault and fractured his tibia with audible bone fracture during the qualifying round of men's artistic gymnastics. The injury was so gruesome that he suffered a grisly double break when he missed his landing leaving his tibia dangling at a right angle while trying to fly over the vault and complete two backflips in a pike. It was one of the worst leg injuries in recent memory.

During practice Dipa Karmarker, first Indian gymnast competed at the Olympics and was near to medal met with Anterior Cruciate Ligament (ACL) injury. Hence, injury can happen anywhere right from training to Olympics and to any gymnast right from beginner to Olympian because they use their bodies to carry out their sport, hence, high chance for injury thus, a coach, a teacher, an organiser must be acquainted with the knowledge of sports injuries to save and treat gymnast as soon as a gymnast gets injured. We probably cannot do too much to completely eliminate traumatic injuries in gymnastics but analysis of injuries during training submitted by the doctors and the coaches shows that all the injuries can be prevented by observing the following rules. If any one of these security measures is not given due attention, then possibilities of injuries are manifold.



1. Proper supervision

Proper supervision is vital in helping to prevent a gymnast from the injuries. In addition to this, adequate treatment is just as vital. They should feel comfortable enough to speak up if they are uncomfortable or hurt while training or performing.

Knowing common injuries associated with certain sports can help parents and coaches watch for and possibly prevent these injuries.

2. Basic Security Measures

First of all, the process of teaching or coaching or both should be systematic and in a proper order. It is necessary that before asking the trainees to perform complex or difficult movements, the trainees must

obtain mastery over the simple and easy movements. Any part of teaching should never be left unattempted in order to prepare the gymnast for competition purposes.

3. Physical preparation and peculiarities of coordination

Speeding up the teaching process not only affects the performance standard of the trainees but it can also cause injuries to the trainees at the time of attempting difficult exercises. While teaching and coaching, it is necessary to tell the gymnasts about the physical preparation and peculiarities of coordination.

The exercises already learnt, must correspond with the required movement. For example, a pupil should never be asked to perform any type of up rise, if the support position is taken with difficulty. Similarly, a physically strong gymnast should not be asked to perform a complex exercise in coordination till he gets the necessary coordination of such a skill.

4. Simple to complex progression

The complex exercise should only be taught when the trainee has a good mastery over the simple exercises. At the time of conducting the lessons, the coaches must observe that the trainees do not overtire themselves. The magnitude of load does not depend upon the quantity of exercises but upon the continuation of the performance, upon the efforts, tempo and rhythm and elements of competition, etc. It is necessary to regularise the magnitude of load according to the training schedule.

5. Focus on proper mechanics

Gymnasts must be made understand their skill scientifically so that they can visualise and make best use of mechanics applied on their movements. It is necessary to make a pause when the dangerous movements occur. The coach should not frighten the pupil while giving him new exercise but he should make the pupil understand that he should pay complete attention on scientific details of the exercise.

6. Proper Lesson Plan

A proper organisation of the lessons plays a significant role in avoiding injuries. Gymnasts who have little experience should not be permitted to perform the exercise independently and without a trainer. For conducting the lessons safely, the following rules should be observed:

- a. The gymnastic apparatus should be properly installed. Improper placement of the apparatus can cause injuries to the trainees.
- b. The apparatus should be arranged in such a way that the light does not dazzle the eyes of the trainees.
- c. It is necessary for the trainees and coaches to check thoroughly whether the apparatus has been correctly tightened.
- d. No space should be left between the gymnastic mats. The handles by which mats are carried should not be protruding. At the time of dismounts and jumps, one should never land at the place which joins the two mats. If the gymnast does a landing in the middle of these mats, it is advisable to place a third mat between the joints.
- e. The coach should watch the dress and shoes of the trainees. The dress of the trainees should not create any hindrance in the performance of the movements.
- f. Before starting a lesson, a good warming up is a must for all the trainees.

7. Get all injuries evaluated.

Many gymnastics overuse injuries are not serious initially. Seeing your doctor or an orthopaedic surgeon early can often help to identify simple treatments, like a short period of rest, training adjustments, wearing a brace, or physical therapy, that will help the gymnast return to training quickly. It is possible, however, that if a young gymnast continues to train and stress that area, he or she could develop a more serious injury. Gymnastics, like most youth sports, can cause injury to some of its athletes.

Many people don't want to go to a doctor or see an orthopaedic surgeon out of fear of being shut down. Or they might fear being told they need surgery. Most of the time, though, orthopaedic surgeons can get young athletes back to sports without surgery. If there is doubt about an injury, go to the doctor and have it checked out. Better yet, take these steps to avoid having problems in the first place!

8. Make sure the gymnasts know and use good technique

Coaches should thoroughly prepare gymnasts for any new routines, moves, or tumbling passes. The gymnast can utilize extra padding while learning these moves before moving to the normal equipment.

9. Keep Changing training routines

Performing particular movements over and over can stress certain parts of the body - the lower back, knee, heel, wrist, or elbow. If a gymnast keeps doing the same movements over and over, he or she could suffer an injury. Instead, work different parts of the body by changing your routines and training periodically.

10. Watch for signs of tiredness

Gymnastics is a sport that emphasizes leanness. Female gymnasts are potentially susceptible developing eating disorders to keep their weight down. The inadequate caloric and nutrient intake can lead to menstrual and hormonal issues that can decrease bone mass. Coupled with the physical stress of training, stress fractures can occur. This spectrum of injuries - female athlete triad -can be very serious, so athletes, parents, and coaches need to watch for any signs of a problem.

11. Don't push gymnasts to train or compete with pain.

The coach during the process of conducting the lesson must carefully observe the behaviour of the gymnasts and he should take necessary measures as and when he notices the first signs of tiredness. Most overuse injuries in young athletes don't need surgery, and they often resolve with a short period of rest, activity modification or even bracing and physical therapy. If a young gymnast continues to stress the painful area, he or she risks a more serious injury. The first signs of fatigue are observed from the deterioration of the quality of movement, improper coordination, less attention, a little rise in the excitement, which in one way or the other, leads to the violation of discipline.

12. Talk to the gymnasts about pain.

This is an important message for coaches, teachers and parents of young gymnasts. Young athletes want to compete. They also don't want to let their parents and coaches down. Often, they don't want to tell their parents and coaches they're hurting. Open up the lines of communication with your children. Rather than asking about winning or talking about their performance, ask your child if practice was fun and other light-hearted topics. The child will eventually open up because he or she will trust you.

13. Discipline and its Particular Relation with the Lessons

Sometimes, the coach does not feel the necessity to inform something in detail, considering that it has already been conveyed or it had no particular relation with the lessons. Such **negligence** not only affects the quick process of learning but - mi also lead to injuries. Sometimes, it so happens that trainees

24. Methods of Security and Help in Lessons

Security" and "help" are the most effective means of checking Injuries caused during gymnastic lessons. Particular attention should be paid to security at the time of teaching the dismounts as majority of injuries mostly occur at the time of landing. Here, the rendered help by coach can gets back the confidence of the gymnast to perform the exercise independently. The help should never lie used improperly. It is usually given at the time of initial attempts and security is arranged later. The coaches should follow points about the proper use of security and help

- a. The methods of security and help for each exercise and I their correct use.
- b. To know the techniques of exercises thoroughly. If the coach does not know the techniques of one element or the other, he will not be able to help the gymnasts. And when he tries to use the technique of any other element, then the gymnasts are exposed to injuries. Knowledge of correct techniques will help in choosing the correct place for providing security.
- c. The coach should convince the gymnast that the exercise® to be learnt are not dangerous.
- d. The coach should possess the necessary strength and quickness to support the gymnast at the time of his unsuccessful performance.

CONCLUSION

It is necessary for all the gymnasts to learn the methods of security, help and self-security. The learning of these methods would enable them to master the techniques of movements. If a gymnast and his/her coach have a good scientific knowledge of the techniques, he would be able to possess the habits of making the movements quickly. The security provided to the gymnasts by their own teachers, family and friends encourages activeness and interest for the lesson. When they provide help to each other at the time of conducting the lessons, they get a feeling of fraternity, friendship, unity and togetherness. Besides, the ability of gymnasts to help each other also facilitates the coach because at the time of conducting the lesson, a necessity of two or a group of helpers is often felt. When a gymnast masters the methods of self-security, he can easily help himself from the dangerous elements but stopping risky exercise and jumping off the apparatus, by changing the element, by performing some additional movements or by running against the apparatus in order to decrease momentum, tin- methods of self-study also enable the gymnast to drop it individually. In the methods of self-security, maintenance of discipline and systematic way of learning the lessons are very essential. They must have expertise in self-control, mental rehearsal and must be vigil about safety precaution before performing on any apparatus to avoid any kind of injury.

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