

# **Essentials of Sports Injury Prevention & Rehabilitation**

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## **Lecture – 24**

### **Team Roles in Sports Injuries**

Good morning ladies and gentlemen, and welcome to lecture 5 of week 5 of this series on sports injury prevention and rehabilitation. This lecture will cover the team roles in sports injury rehabilitation. I will be covering this lecture as per the following outline. Introduction: I will introduce the team. We will talk about the steps of sports rehab. We will talk about the keys to successful sports rehab. We will discuss the various roles of the different specialists in the team, and we will conclude with a take home message.

Rehabilitation after a sports injury is crucial to ensure full recovery, minimize the off time from sports and to prevent re-injury. Modern active rehabilitation framework demands equal participation from the athlete and the entire rehabilitation team. It means that the whole team of individuals of specialists who are working with the athlete and the athlete himself or herself has to be involved completely 24x7, 365 days of the year to produce an athlete who has come back from an injury fitter and more stable and more confident than ever.

The team comprises of doctors. Who are these doctors? Doctors are team physicians. Doctors are sports medicine doctors and doctors are the surgeons, the sports surgeons and orthopedic surgeons who work with these athletes to treat surgically required injuries. Doctors: who are the doctors who are involved in the rehabilitation team. These doctors may be team physicians, these doctors may be sports medicine consultants or sports medicine doctors, and these doctors may be sports surgeons or orthopedic surgeons who operate on injuries which require surgery.

There may be physiotherapists working with the team. These are generally specialized in sports physiotherapy. We do have nutritionists working with the team, and these nutritionists have specialized qualification and experience in sports nutrition. We definitely have psychologists working with the team. These psychologists have specialized training and qualification in sports and rehabilitation psychology.

The coaches are definitely part of the rehab team. The strength and conditioning coaches are also part of the rehab team. The co-athletes, the teammates of the athlete are also part of the rehab team. We will discuss how all these components fit together to form a whole picture. Massage therapists are also part of the rehab team.

There are certain steps of the sports rehabilitation process. The number one is to establish proper diagnosis. What we say is establish an accurate patho anatomical diagnosis. Once we have the diagnosis in hand, we start to control the inflammation. We start to promote healing. We start to increase the fitness of the athlete and we control abuse. That means we control exercise or training abuse of the athlete. These are the steps to a successful sports rehab process. We must know that isolation and loneliness are very common during sports rehabilitation. We have to maintain an active engagement with the athlete, and encourage them to remain part of the team during rehabilitation.

If we handle it well, the athlete can come back from an injury much better. If we do not handle it well, injury can be a turning point for the athlete's career. I repeat, injury can be a turning point in an athlete's career for better or for worse. If handled well, for better. If not handled well, the athlete will have a worse outcome than what he was prior to injury or he may even have to leave the sport completely.

Successful rehab can ensure that the athlete returns to sport more robust and more confident. You have to maintain a positive trusting environment during the rehab process at all times. If the athlete is treated in a negative environment, or he feels that he cannot trust his rehab team, the outcomes will not be very good. If the athlete is psychologically stressed, their body is more vulnerable to injury. Sleep and nutrition are essential in the injury prevention process and for a successful rehabilitation.

Okay, let us discuss the roles. What do the doctors do? They can go on field, and they can start managing and diagnosing the injuries right from on field itself. They will do the definitive diagnosis of the injury, and they will start the definitive treatment of the injuries. It may start from on field itself, and it will definitely continue when the athlete is in the hospital. Whether the injury is to be managed by a surgery or whether the injury can be managed conservatively, the decision is taken by a team of doctors comprising of the orthopedic surgeon, the sports medicine doctor and the team physician.

Doctors can advise or prescribe investigations, and doctors can advise and prescribe drugs for management of the injury. Doctors are the team leaders for design of rehab protocols. They are generally aware of the surgery. They are generally aware of what surgery has been done, which periods the athlete has to be protected, which periods the graft has to be protected, etc., etc. They are generally involved in supervision of the rehab protocols. Doctors will do the final

return to play certification of the athlete after the injury rehab process has been completed; and pre-participation, physical examination is also done by the team of doctors. So, this is the role played by the team of doctors in the injury rehab process. And as we can see, it's quite exhaustive.

**Role of the sports physiotherapist.** A good sports physiotherapist is worth his or her weight in gold in the rehab team. They provide on-field first aid for injuries in case medical personnel are not available. They implement all the rehab protocols which are given. They prescribe what is called therapeutic exercise for these rehab protocols. They do the periodic assessments of the athlete during the rehab process. They monitor the training load on the athlete. They monitor the recovery status of the athlete. They prevent exercise and training load abuse on the athlete. And they make sure the athlete is fit enough to fulfill the RTP criteria or the return to play criteria.

**Role of the coaches.** Several times they provide on-field first aid of injuries. They have to be aware of the rehab protocols which the athlete is undergoing. They provide periodic feedback to the rehab team and to the athlete regarding the progress of the rehab process. They act as mentors to the athlete during the rehab process. They monitor the training load which is there on the athlete. And they prevent exercise and training load abuse on the athlete. They also prescribe what is called skilled training for the athlete during the rehab process.

**Strength and conditioning coaches,** another very important component of the rehab team. They do provide first aid of injuries on field in the absence of a medical team. They help in design of the rehab protocols using periodization principles. We have discussed these periodization principles and periodization of rehab in two lectures earlier. They ensure that the return to competition criteria are fulfilled by the athletes. They give periodic feedback to the rehab team and the athlete. They ensure that there is appropriate training load being given to the athlete and there is no abuse of the athlete.

**Mental game:** Psychology has a central role to play in successive rehabilitation and prevention of injury. Psychology has a central role to play in successful rehabilitation and prevention of sports injury. The athlete's emotions, beliefs and thoughts all affect how their body responds to injury and how their body responds to the injury rehab process. Traditionally, the sports psychologist has focused on helping the athlete adjust to the injury, adhere to the rehabilitation protocol and help in the return to sport. Nowadays, rehabilitation psychology aims to aid the physical healing and repair of the body through psychological means.

That means, the role of the rehabilitation psychologist is to help the athlete to assess, to develop and to use their inbuilt psychological resources, to aid effective healing and successful rehabilitation, to produce robust physical and psychological health in the athlete.

The role of sports nutrition: Nutrition plays a very critical role in training and rehabilitation. An athlete who is well nourished will recover faster and with better body composition and with better structural repair. Nutritional strategy is required for the optimization of the regeneration environment.

The role of the sports nutritionist initially is to limit the primary damage, and to ensure that the tissues surrounding the affected area are free from free radicals. They will ensure consumption of the appropriate amount of energy and macronutrients in the form of proteins, carbohydrates and fats. They will ensure that the athlete has balanced nutrition even during the reduced training load periods; and they will ensure that the training load and the nutrition is balanced while the rehabilitation process is progressing. Sports nutrition provides the body with the relevant building blocks for repair and rebuilding. They will also ensure consumption of adequate micronutrients and macronutrients to aid in the rehabilitation process. Please note the type of the injuries will guide food choices and supplementation.

Role of teammates. They provide on-field first aid for injuries in the absence of the medical team. They can be tasked to monitor for signs of overtraining or exercise abuse. They definitely can provide positive reinforcement to the rehabbing athlete. They can provide motivation and reassurance. Simple things like “don't worry your place in the team is secure, nobody else can take your place.” Simple things like these reassurances can prove to be a huge motivational boost to the rehabbing athlete. They can provide periodic feedback to the rehab team and to the athlete.

Specialist masseurs or massage therapists have a very important role to play in the rehab team. They can help in on-field first aid of injuries. They can provide something called therapeutic massage which is massage provided to an injured body part only. They can provide sports massage to the rest of the body so that the rest of the body remains supple, and in a fit state to undertake the recovery and rehab drills. If the athlete is in the recovery stage or recovery is improper, masseurs or massage therapists can provide something called recovery massage. During the recovery massage or during the massage treatment or massage therapy, they can provide good motivation and good reassurance. And they will also provide periodic feedback to the rehabbing team and to the athlete regarding the progress of the rehab process.

So what have we learnt from this lecture? We have learnt that sports rehabilitation is an essential part of an athlete's career. There is a stepwise progression in the rehabilitation process based on criteria and it is definitely not based on time. Sports rehabilitation is a multi-specialty effort and there is no I in that team. Sports rehabilitation requires multi-specialty expertise and multi-specialty effort.

Each speciality has a specific role and each speciality has a specific timing of that role to be played in the sports rehab process. Do not ignore psychological rehabilitation, and please give adequate time, effort and exposure to sports psychologists and psychological rehabilitation. Please follow the athlete first approach during the sports rehab process, and make sure that the sports rehab process is headed by an appropriately qualified team leader. These are the references which have been used to make this lecture. I strongly urge you to go through these references in case you wish to know more about this topic.

Thank you for your time ladies and gentlemen. This concludes week 5 of sports injury prevention and rehabilitation. As always, there will be an assignment or a test which will be given to you which you will have to submit during the stipulated time. Thank you very much ladies and gentlemen for a patient listening. Please get back to us with any comments or queries. We will answer them as soon as possible and kindly do submit your assignment in the stipulated time period. Thank you ladies and gentlemen and Jai Hind.