

INFORMATION

LEARN TO:

Handle and manage data from evaluations and monitoring of performance and team injuries, compared to data from science and training.

Get to know the fundamental characteristics for both prevention strategies and injury rehabilitation, as well as the different injury mechanisms in team sports.

Handle pathologies and specific injuries corresponding to each sport.

Master complementary topics inherent to sports medicine.

Apply the appropriate methodology to the design of the post-injury rehabilitation process in situations where strength development plays a significant role.

Analyze workload monitoring data to orientate the training process towards preventing injuries and consequently successfully optimize sports performance.

Optimize acute recovery and training adaptation with nutrition.

Acquire specific strategies for resolving specific situations that arise in the athletic environment on a regular basis.



DELIVERY MODE ONLINE
DURATION 8 MONTHS
ACADEMIC DEGREE EXECUTIVE EDUCATION
DELIVERED IN ENGLISH AND SPANISH

PROFESSORS



Gil Rodas Font

Medical Doctor and Surgeon. Specialist in Physical Education and Sports Medicine. Head of the Barça Innovation Hub Medical Service area.



Daniel Romero Rodriguez

Physiotherapist. Physical trainer and rehabilitator of competitive high performance athletes. Performance, prevention and post-injury rehabilitation advisor for various professional football players.



Francesc Cos

Former Head of Strength Training for FC Barcelona's first team football squad (2004-2016). Former Director of the Performance area of Barça Innovation Hub (2016-2018). Currently Director of Performance of the New York City (MLS).



Tim Gabbett

High Performance Consultant. 20 years experience working as an applied sport scientist with athletes and coaches from a wide range of sports.



Asker Jeukendrup

Sports nutrition scientist. Professor of Exercise Metabolism. Performance consultant in elite sport. Entrepreneur. Ironman triathlete.



Ana Merayo García

Sports Psychologist. Instructor. Coordinator of the SAIE (Service for Comprehensive Athlete Care) at Masia 360, FC Barcelona.

PROGRAM

1. Team Sports Physician and Data Management

MODULE 1: Role of the team sports physician

MODULE 2: Data management and methodology

MODULE 3: Sports injuries in other populations

MODULE 4: Monitoring workload

2. Injuries and Team Sports

MODULE 1: Prevention of and readaptation from injuries

MODULE 2: Muscle injury and tendinitis management

MODULE 3: Management of joint and bone injury

MODULE 4: Decision making and returning to competition

3. Team Sports Pathology

MODULE 1: Management of medical pathology 1

MODULE 2: Management of medical pathology 2

MODULE 3: Sports Specific pathologies

MODULE 4: Special sports and competitions

4. Inherent Aspect of the Team Sports Physician

MODULE 1: Diagnostics imaging: Ultrasound as the team sports physician's basic tool

MODULE 2: Nutrition and ergogenic aids

MODULE 3: The fight against doping

MODULE 4: Communication, leadership and group management

5. Strength and muscle power as a key feature of rehabilitation from sports injuries

MODULE 1: Analysis of injury in sports: injury mechanisms and associated risk factors.

Unit 1: Injury biomechanics and the implications of strength in the recovery of athletic skills. Unit 2: Risk factors associated with lack of strength.

MODULE 2: Sports injuries and their relationship with the quality of strength.

Unit 1: Injuries in muscle and tendon structures.

Unit 2: Joint injuries.

MODULE 3: Strength manifestations and muscle power in the post-injury rehabilitation process.

Unit 1: Strength and its different manifestations according to external load and speed of execution.

Unit 2: Strength workload programming in sports injuries.

MODULE 4: New paradigms in strength training: muscle building through vascular occlusion.

Unit 1: Basis of traditional muscle building vs. muscle building through blood flow restriction (BFR).

Unit 2: Programming of training through blood flow restriction: key variables for optimal prescription.

PROGRAM

6. A Best Practice Approach to Workload Monitoring

MODULE 1: Why do injuries occur? MODULE 2: Fitness-fatigue model

MODULE 3: Acute:chronic workload ratio and injury

MODULE 4: Recent controversies, and practical applications of the data

7. Nutrition, Recovery and Training Adaptations

MODULE 1: Exercise and fatigue

Unit 1: What is fatigue? Unit 2: Delaying fatigue

MODULE 2: Recovery and adaptation

Unit 1: Recovery Unit 2: Adaptation

MODULE 3: Optimising recovery and adaptation

Unit 1: Optimising recovery with nutrition Unit 2: Optimising adaptation with nutrition

MODULE 4: Recovery from injury Unit 1: Different phases of injury

Unit 2: Strategies

8. Daily Situations in Sport

MODULE 1: Managing Injured Players
MODULE 2: Possibilities for a Dual Career
MODULE 3: Difficulty Management I
MODULE 4: Difficulty Management II

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EXPERIENCE

All your learning experience will take place in an online platform where you will find all the resources you need to study:

LECTURES

which address the main topics.

ACTIVITIES

to apply the content addressed in each module.

VIDEOS

that deepen some subjects of the readings.

RUBRICS

that will evaluate you in each module.

ONLINE EXPERT

In every course, you will have the support and virtual follow-up of a subject-matter expert. This online expert will perform interventions throughout the different modules to ensure your learning, as well as the interaction with the rest of your peers.

In addition, he will be available in the forum and by internal messaging so that you can appeal to him as many times as you need.

FORUMS

where you can interact with your colleagues.

SELF-ASSESSMENTS

which will help you measure your learning progress.

BENEFITS

World-class content, designed by experts and sports-industry oriented for an immediate impact.

Round-the-clock access to study material, wherever you want and from any device.

Custom feedback for every individual and teamwork activity.

Spaces of discussion and interaction with industry professionals from all over the world.

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by Barça Innovation Hub - Universitas.

