Rest & Recovery

Curriculum Document
October 2023

Introduction

Triathlon is a physically and mentally demanding endurance sport, and knowing the importance of rest and recovery is essential to achieve the season objectives, avoid injuries, and maintain a lengthy and fruitful athletic career.

Triathletes frequently push their bodies to the limit during practise and competition. Without paying adequate attention to rest and recovery, the advantages of all this hard effort may be jeopardised. The course objective is to provide participants with the necessary knowledge, skills and techniques necessary to create rest and recovery routines aimed to improve triathlon performance.

This programme is designed for triathletes, coaches, and any sport practitioner interested in maximising their performance and wellbeing through Rest and Recovery.

Overview

This course is structured to provide a holistic understanding of rest and recovery in the context of triathlon. We will explore various aspects of rest, including sleep, nutrition, hydration, active recovery, and mental relaxation techniques. Additionally, we'll delve into the science behind recovery, injury prevention, and periodization to help you optimize your training and race preparation.

Throughout the course, you will engage in a combination of lectures, practical exercises, case studies, and group discussions. Our facilitators and experts in the field will guide you through evidence-based principles and practical applications.

Learning outcomes

This course provides essential and valuable practical sports science information that provides coaches working with triathletes with scientific-based information to successfully develop their sport potential while minimising the risk of injury and overtraining. Furthermore, the course aims to improve participants' knowledge of key aspects relevant to rest and recovery and promote safe participation in triathlon

By the end of this course, participants will be able to:
- Understand the physiological and psychological aspects of fatigue and the importance of rest and recovery in triathlon training.
- Explain the science of sleep and its role in optimizing athletic performance.
- Implement nutrition strategies to support effective recovery and replenish energy stores.
- Utilize active recovery and cross-training techniques to enhance recovery and reduce the risk of injuries.
- Apply restorative practices such as massage, stretching, and self-care for improved recovery.

- Recognize the signs of overtraining and burnout and develop strategies to prevent them.
- Design a periodized training plan and effectively manage training loads to optimize performance.
- Utilize recovery tools and technology to monitor and enhance recovery in triathlon.

Content

The content of the program is summarised in the following sections:

Importance of Recovery in Athletes:
This section discusses the need of recovery for athletes in order to maximise performance and avoid injuries. It involves balancing training stress with adequate rest and restoration, ensuring the body can adapt and grow stronger.

The Stress-Recovery Model:
This model highlights the need for athletes to manage stress (physical and mental) effectively and incorporate recovery periods. It underlines the significance of rest, sleep, and relaxation in maintaining peak performance.

Healthy Habits:
The key elements of adopting healthy habits for performance enhancement will be covered in this chapter. Establishing healthy habits, such as consistent training schedules, nutrition, and sleep patterns, is vital for athletes to maintain their physical and mental well-being.

Sleep:
Quality sleep is a cornerstone of recovery. It aids in muscle repair, hormone regulation, and cognitive function. Athletes should prioritize a sufficient and restful sleep routine. This chapter will discuss the significance of learning and understanding how tracking sleep patterns, maintaining a regular sleep schedule, strategic naps, and using supplements can all help to enhance sleep quality and recovery.

Recovery Strategies:
This section discusses numerous methods that can enhance recovery for athletes, including nutrition, mental recovery, hydrotherapy, water-based therapies and massage.

- Nutrition:
Optimal nutrition with the right balance of macronutrients and micronutrients aids in muscle repair and energy replenishment.
- Mental Recovery:
Mental relaxation techniques, meditation, and mindfulness help athletes reduce stress and enhance focus and concentration.
- Hydrotherapy:
Water-based therapies like cold baths or hot tubs can reduce muscle soreness and inflammation.
- Massage:

Regular massages can improve blood flow, reduce muscle tension, and promote overall relaxation.

Other Recovery Strategies:
The other strategies discussed in the last section for the Rest and Recovery course include active recovery, stretching, myofascial release, pneumatic compression, LED treatment, and oxygen chambers.

- **Active Recovery and Stretching:**
Light, low-intensity exercises and stretching can aid in muscle recovery and flexibility.
- **Roller, Myofascial Release:**
Using foam rollers and myofascial release techniques can alleviate muscle knots and improve mobility.
- **Pneumatic Compression:**
Devices that apply pressure to limbs can help reduce swelling and enhance circulation.
- **LED Therapy:**
Light therapy may assist in reducing inflammation and promoting tissue repair.
- **Oxygen Chambers:**
Hyperbaric oxygen chambers provide oxygen at higher pressure levels, potentially aiding in tissue repair and recovery.

Supporting Resources

The content is supported by the [World Triathlon Education & Knowledge Hub](#), which contains different information required to establish a successful training program. With all the content provided, coaches should be able to develop their coaching knowledge and skills and design a tailored training program for their athletes.

For more details please contact World Triathlon Development at development@triathlon.org.

Key Speakers

Lorena Torres Ronda, PhD

Lorena Torres Ronda, PhD, has extensive experience as a high-performance specialist in professional and Olympic sports. She has served as the performance director for the Philadelphia 76ers (NBA), the sport scientist and research and development coordinator for the San Antonio Spurs (NBA), and the sport scientist and strength and conditioning coach for the F.C. Barcelona basketball team and the Spanish national swimming team. Additionally, she has been a part of the NBA scientific committee.

Project lead: Vicent Beltran (ESP), World Triathlon Coach Facilitator

Dates

Registration period: October, 9th to 29th
Pre-course activities: Starting from October, 30th
Key webinars: November 7th, 14th, 21st, 28th
Languages: English (morning session 10am CET) and Spanish (evening session 8pm CET)

Schedule

Registration opens	October, 16th, 2023		
Registration Deadline	October, 29th, 2023		
Pre-course activities	October, 30th to November, 6th, 2023		
Session dates and times		**English**	**Spanish**
Key webinar 1	7th, November, 2023	10:00 am CET	20:00 CET
Key webinar 2	14th, November, 2023	10:00 am CET	20:00 CET
Key webinar 3	21st, November, 2023	10:00 am CET	20:00 CET
Key webinar 4	28th, November, 2023	10:00 am CET	20:00 CET

Target Audience

The course mainly aims for coaches of emerging National Federations and provides an introductory level presentation of the topics listed under "Content".

Registration Process

- World Triathlon Certified Coaches can self-enroll in the course through the Education & Knowledge HUB.
- Individuals with no World Triathlon coaching certification are also welcome, first they need to create a new account on the platform, then self-enroll in the course.

Maximum number of participants

- The upper limit of participation is 500 attendees of Zoom webinars.

Requirements:

World Triathlon will provide attendance certificates to course participants, who:

- read all the content on the Education & Knowledge HUB, and
- successfully complete checking of knowledge tasks or activities.

Missing any of the above criteria is an obstacle for getting an attendance certificate. The course will be closed on December 3rd, 2023 at midnight (CET). Any tasks should be completed by then. We have zero tolerance to any delay.