

# Postgraduate Certificate Pediatric Knee Orthopedics





## Postgraduate Certificate Pediatric Knee Orthopedics

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

6 ECTS Credits

Teaching Hours: 150 hours.

Website: [www.techtute.com/medicine/postgraduate-certificate/pediatric-knee-orthopedics](http://www.techtute.com/medicine/postgraduate-certificate/pediatric-knee-orthopedics)

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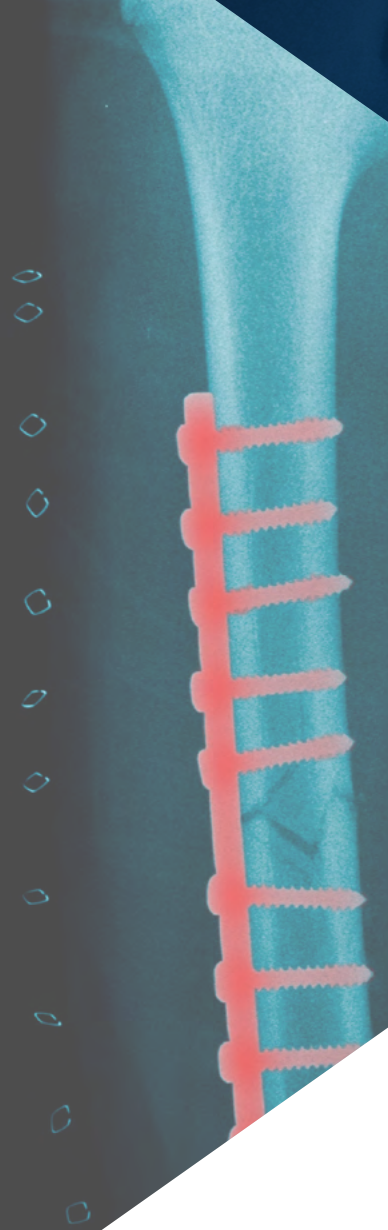
# 01

# Introduction

The knee is a very important joint in the growth in length of the lower limb. Its stability and articular range are crucial for a physiological gait. This course will delve into the concepts that should always be kept in mind when treating injuries in this anatomical region.

Delve into the proper treatment of neonatal pathologies, physiatric injuries and those that may have consequences in adulthood, with this high-level training.





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*Professionals must update their knowledge with training courses such as this one, where they will find the main novelties in the field"*

Adapting to our times, in Pediatric Orthopedics there is no high-level online training that makes it possible, in our language, to stay at the forefront of updates and access to the fundamental concepts of our speciality.

Although there are only a few one-off in-person courses, the possibility of having access to specialists from a top national and international monographic hospital, with great experience in complex processes of Pediatric Orthopedics, is a unique opportunity today.

Knowledge of knee pathologies in adolescents is transcendental for their survival in adulthood. A late diagnosis of knee epiphysiolysis can lead, for example, to loss of function and require total arthroplasty at an inappropriately early age. That is why this course will teach how to diagnose it early and manage it properly, including complex reduction surgeries.

The syllabus covers the main topics of current Children's Orthopedics in such a way that whoever masters them will be prepared to work in this field in any hospital in the world. Therefore, it is not just another diploma in your backpack, but a real learning tool to approach the topics of the specialty in a modern, objective way and with the ability to make a judgment based on today's most cutting-edge literature.

This **Postgraduate Certificate in Pediatric Knee Orthopedics** is the most comprehensive and up-to-date educational program on the market. The most important features include:

- ♦ Practical cases presented by experts in Obesity..
- ♦ The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice.
- ♦ The latest information on Obesity.
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning.
- ♦ A special emphasis on innovative methodologies in Obesity.
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.
- ♦ Content that is accessible from any fixed or portable device with an Internet connection.



*If you want to improve your daily practice, don't hesitate to broaden your knowledge with this intensive training"*

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*This Postgraduate Certificate may be the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge in Pediatric Knee Orthopedics, you will obtain a Postgraduate Certificate endorsed by TECH Technological University"*

The teaching staff includes professionals from the field of Pediatric Orthopedics, who bring their experience to this training, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the physician with situated and contextual learning, i.e., a simulated environment that will provide immersive training that is programmed to train students in real situations.

This program is designed around Problem Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the medical specialist in pediatric orthopedics will be assisted by an innovative interactive video system created by renowned and experienced experts in the field of Pediatric Orthopedics.

*You will be prepared professionals with extensive experience in pediatric orthopedics, who will guide you throughout the educational process.*

*This 100% online course will allow you to combine your studies with your professional work while increasing your knowledge in this field.*



# 02 Objectives

The **Postgraduate Certificate in Pediatric Knee Orthopedics** is aimed at facilitating the performance of top tier professionals with the latest advances and most innovative treatments in the sector.







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*To become one of the best professionals specialized in Pediatric Knee Orthopedics you can't miss the opportunity to study this Postgraduate Certificate with us"*



## General Objectives

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- To specialize in the diagnosis, treatment and prognosis of orthopedic and traumatic knee pathologies in children and their particular characteristics compared to adults
- Apply learning to explore and diagnose knee pathologies in children, losing the usual fear generated in many specialists due to lack of knowledge of the pathology





## Specific Objectives

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- ♦ Delve into the diagnosis and early treatment of congenital knee dislocation
- ♦ Identify possible associated lesions
- ♦ Learn to distinguish the clinical-radiological characteristics of patients with discoid meniscus
- ♦ Differentiate the types of discoid meniscus
- ♦ Perform a differential diagnosis of popliteal cysts
- ♦ Recognize the clinical, radiological and epidemiological features of Osgood-Schlatter disease
- ♦ Identify possible warning signs of Osgood-Schlatter disease
- ♦ Perform an adequate diagnosis of patellofemoral instabilities
- ♦ Learn the osteochondral lesions of children
- ♦ Delve into the implications of cruciate ligament rupture in children
- ♦ Manage fractures around the knee
- ♦ Differentiate between stable and unstable fractures for correct treatment

03

# Course Management

The program includes in its teaching staff renowned experts in Pediatric Orthopedics, who contribute their work experience to this training. Additionally, other recognized experts participate in its design and preparation, completing the program in an interdisciplinary manner.





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*Leading professionals in the field have come together to teach you the latest advances in Pediatric Orthopedics"*

## International Guest Director

Mininder Kocher is an internationally prominent pediatric orthopedic surgeon. His professional merits and results have been recognized with numerous awards, including the Kappa Delta award, considered the “Nobel Prize” in this surgical field. In addition, he practices as a specialist at Harvard Medical School.

The scientist also holds the program of Chief of the Division of Sports Medicine at Boston Children’s Hospital. From that entity, he deals with different complex pathologies such as **joint injuries, Osteomyelitis, Hip Labral Rupture, Osteochondritis Dissecans or Pigmented Villonodular Synovitis**, among others. His innovations in these areas of Orthopedic Medicine are reflected in more than 150 academic articles published in first impact indexed journals. He is also the author of more than 100 chapters in books and is the sole author of 4 books. His texts have become an indispensable reference for the medical community, highlighting his undeniable contributions to the field.

Dr. Mininder Kocher’s impact extends beyond the borders of the United States, as he serves as a **consultant and advisor to hospitals and universities in more than 20 countries**. Moreover, he has been listed as one of the top surgeons in the world on platforms such as US News & World Report, Castle Connelly, Top Doctors and Boston Magazine. Likewise, his skills and experiences have been the subject of attention in reference media such as the New York Times, Wall Street Journal, USA Today, Boston Globe, Chicago Tribune, Scientific American, among others.

Especially committed to the rehabilitation of children and adolescent athletes, his exhaustive work in this area has been decorated with awards as prominent as the **Von Meyer, Richard Kilfoyle, Angela Kuo or Arthur Heune awards**.



## Dr. Kocher, Mininder

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- Orthopaedic Surgery Specialist at Harvard Medical School
- M.D. from Harvard University
- Board Certified in General Practice by the American Board of Orthopaedic Surgery
- Board Certified in Sports Medicine by the American Board of Orthopedic Surgery
- Member of: Board of Directors of the American Academy of Orthopaedic Surgeons, American Orthopaedic Society for Sports Medicine, Pediatric Orthopaedic Society of North America, Herodicus Society, International Pediatric Orthopaedic Think Tank

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Dr. Palazón Quevedo, Ángel

- ♦ Head of the Neurology Service
- ♦ Medical specialist in Orthopedic Surgery and Traumatology with wide and recognized professional experience in the field of O.S.T. for children and adults.
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid and Medical Specialist in O.S.T. via MIR at the San Juan Clinical University Hospital (Alicante-Valencian Community)
- ♦ Permanent member of the SECOT since 1999.
- ♦ Member of the SEOP since 2014.
- ♦ Collaborator with the SECOT board of directors since 2004-06 for the interactive dissemination of the speciality.

## Codirectors



### Dr. Ramírez Barragán, Ana

- ♦ Attending physician at the Traumatology and Orthopedic Surgery Service of the Niño Jesús Hospital
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid.
- ♦ Specialist in Traumatology and Orthopedic Surgery.





### Dr. Rosa Egea, María

- Attending Physician of the Orthopedics and Traumatology Department of the Niño Jesús Pediatric University Hospital
- Specialist in Orthopedic Surgery and Traumatology.
- Degree in Medicine and Surgery from the Complutense University of Madrid.



### Dr. Martínez Álvarez, Sergio

- Attending Physician of the Orthopedics and Traumatology Department of the Niño Jesús Pediatric University Hospital
- Head of the Upper Limb and Pediatric Hand Unit
- Specialist in Pediatric Orthopedic Surgery and Traumatology. La Princesa University Hospital

## Professors

### **Dr. Rodríguez del Real, M<sup>a</sup> Teresa**

- ♦ Degree in Medicine from the Autonomous University of Madrid.
- ♦ Resident in Orthopedic Surgery and Traumatology at the Severo Ochoa University Hospital (Leganés).





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*This will provide key training  
to advance your career”*

# 04

## Structure and Content

The structure of the content has been designed by the best professionals in the Pediatric Orthopedics sector, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, and diagnosed, and with extensive knowledge of new technologies applied to orthopedics.





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*This course contains the most complete and up-to-date scientific program on the market"*

## Module 1. knee

- 1.1. Congenital Dislocation of the Knee
  - 1.1.1. Diagnosis and Classification
  - 1.1.2. Etiology
  - 1.1.3. Clinical - Radiological Findings
  - 1.1.4. Differential Diagnosis
  - 1.1.5. Clinical Findings and Associated Lesions
  - 1.1.6. Treatment
- 1.2. Patellofemoral Instability
  - 1.2.1. Prevalence and Etiology
  - 1.2.2. Types: Recurrent Dislocation, Recurrent Subluxation, Habitual Dislocation and Chronic Dislocation
  - 1.2.3. Associated Conditions
  - 1.2.4. Clinical Findings
  - 1.2.5. Radiological Findings
  - 1.2.6. Treatment
- 1.3. Osteochondritis Dissecans
  - 1.3.1. Definition and Aetiology
  - 1.3.2. Pathology
  - 1.3.3. Clinical Radiological Findings
  - 1.3.4. Treatment
- 1.4. Discoid Meniscus
  - 1.4.1. Pathogenesis.
  - 1.4.2. Clinical - Radiological Findings
  - 1.4.3. Treatment
- 1.5. Popliteal Cyst
  - 1.5.1. Definition and Clinical Findings
  - 1.5.2. Differential Diagnosis
  - 1.5.3. Pathology
  - 1.5.4. Diagnostic Tests
  - 1.5.5. Treatment





- 1.6. Apophysitis: Osgood-Schlatter Disease, Sinding-Larsen-Johanson Disease
  - 1.6.1. Definition and Epidemiology
  - 1.6.2. Clinical and Radiological Findings
  - 1.6.3. Treatment
  - 1.6.4. Complications
- 1.7. Ligament Lesions of the Knee: Anterior Cruciate Ligament
  - 1.7.1. Prevalence and Etiology
  - 1.7.2. Diagnosis
  - 1.7.3. Treatment in Patients with Growth Cartilage
- 1.8. Epiphysiolysis of the Distal Femur and Fractures of the Proximal Tibia
  - 1.8.1. Anatomic Considerations. Pathophysiology
  - 1.8.2. Diagnosis
  - 1.8.3. Treatment
- 1.9. Fractures of the Tibial Spines
  - 1.9.1. Pathophysiology.
  - 1.9.2. Anatomic Considerations
  - 1.9.3. Diagnosis
  - 1.9.4. Treatment
- 1.10. Anterior Avulsion Fracture
  - 1.10.1. Pathophysiology
  - 1.10.2. Anatomic Considerations
  - 1.10.3. Diagnosis
  - 1.10.4. Treatment
- 1.11. Periosteal Tear of the Patella
  - 1.11.1. Pathophysiology.
  - 1.11.2. Anatomic Considerations
  - 1.11.3. Diagnosis
  - 1.11.4. Treatment

05

# Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: *Re-learning*.

This teaching system is used in the most prestigious medical schools in the world, and major publications such as the *New England Journal of Medicine* have considered it to be one of the most effective.





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*Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

In a given situation, what would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you can experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching potential or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in professional medical practice.

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*Did you know that this method was developed in 1912 at Harvard for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

*The physician will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Re-learning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.



In this program you will have access to the best educational material, prepared with you in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story"



#### Additional Reading

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.





**Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Re-testing**

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



**Classes**

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.



**Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



# 06 Certificate

The **Postgraduate Certificate in Pediatric Knee Orthopedics** guarantees you, in addition to the most rigorous and updated training, access to a certificate issued by **TECH Technological University**.







*Successfully complete this training and receive your university degree without travel or laborious paperwork"*

This **Postgraduate Certificate in Pediatric Knee Orthopedics** is the most comprehensive and up-to-date scientific program on the market.

After the student has passed the evaluations, they will receive by mail with acknowledgment of receipt their corresponding Postgraduate Certificate issued by **TECH Technological University**.

The certificate issued by **TECH Technological University** will specify the qualification obtained through the course, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Pediatric Knee Orthopedics**

ECTS: **6**

Official Number of Hours: **150**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

health future  
confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
online tr  
velopment languages  
virtual classroom



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Pediatric Knee Orthopedics

Course Modality: Online

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