

# Postgraduate Diploma

## Pediatric Lower Limb Orthopedics





## Postgraduate Diploma Pediatric Lower Limb Orthopedics

Course Modality: **Online**

Duration: **6 months.**

Certificate: **TECH Technological University**

**18 ECTS Credits**

Teaching Hours: **450 hours.**

Website: [www.techitute.com/medicine/postgraduate-diploma/postgraduate-diploma-pediatric-lower-limb-orthopedics](http://www.techitute.com/medicine/postgraduate-diploma/postgraduate-diploma-pediatric-lower-limb-orthopedics)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 30*

05

Methodology

---

*p. 36*

06

Certificate

---

*p. 44*

# 01

# Introduction

This diploma addresses the different pathologies of the hip, knee and foot in the different pediatric age groups. The main malformations and deformities in the newborn up to the adolescent age will be developed throughout the different topics.

A unique opportunity to specialise in a high-demand professional field.







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*This Postgraduate Diploma is a high-level training that will allow you to achieve professional success"*

This program is designed to provide all the theoretical and practical knowledge in Pediatric Orthopedics, presented through high quality multimedia content, analysis of clinical cases prepared by experts, master classes and video techniques that allow the exchange of knowledge and experience, maintain and update the level training of its members, create protocols for action and disseminate the most important developments in the specialty.

The syllabus of this complete program 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.

With this online training, students can organize their time and pace of learning, adapting it to their schedules, in addition to being able to access the contents from any computer or mobile device.

This **Postgraduate Diploma in Pediatric Lower Limb Orthopedics** contains the scientific most complete and up-to-date Educational program on the market. The most important features include:

- ◆ Developing practical cases presented by experts in Pediatric Orthopedics.
- ◆ 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 developments in Pediatric Orthopedics..
- ◆ Practical exercises where the self-assessment process can be carried out to improve learning.
- ◆ Special emphasis on innovative methodologies in Pediatric Orthopedics.
- ◆ 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 Diploma may be the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge in Pediatric Orthopedics, you will obtain a 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 specialize through professionals with extensive experience in pediatric orthopedics, who will guide you throughout the educational process.*

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



# 02

# Objectives

The Postgraduate Diploma in Pediatric Lower Limb 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 orthopedics you can't miss the opportunity to study this Postgraduate Diploma with us"*



## General Objectives

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- ◆ Recognize and manage the major diseases of the hip that affect children
- ◆ Manage the examination and diagnosis of hip pathology in children according to their age and the prevalence associated with it
- ◆ To review the most important pathologies that occur in pediatric orthopedics, as knowledge of them is the fundamental pillar of this speciality
- ◆ To learn about the latest advances in the treatment of these classic pediatric orthopedics diseases
- ◆ To specialize in the diagnosis, treatment and prognosis of orthopedic and traumatologic 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
- ◆ Recognize the different pathologies of children's feet and be able to make an accurate diagnosis together with a suitable therapeutic approach





## Specific Objectives

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### Module 1. Hip

- ◆ Manage the diagnosis, examination and treatment of hip dysplasia, taking into account the different ages of children
- ◆ Delve into hip exploration, which is essential in neonatal screening
- ◆ Understand Perthes disease with clear management ideas, differentiating between outdated treatments and new perspectives on the disease
- ◆ Make an early diagnosis of adolescent hip pathology, which is crucial for the survival of the hip in adulthood, and learning how to manage it properly, including complex hip reduction surgeries
- ◆ Learn to recognize coxa vara and spring hip and assess their clinical implications for receiving proper treatment
- ◆ Differentiate fractures and know how and when to treat them, as well as the surgical indications versus conservative treatment of fractures

### Module 2. knee

- ◆ 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

### Module 3. Pathology of the Foot

- ◆ Gain in-depth knowledge of the etiopathogenesis of foot malformations and deformities.
- ◆ Diagnose through anamnesis and physical examination.
- ◆ Apply the complementary tests required for diagnosis, and primarily be able to assess and describe the radiographic images in the different pathologies.
- ◆ Interpret when different diagnostic tests are appropriate.
- ◆ Gain in-depth knowledge on treating each pathology. Learn the common techniques of manipulation and casting in the pediatric age, as well as the different surgical techniques required to treat each pathology.
- ◆ Learn the natural history and evolution of each process.

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.

## Co-Direction



### 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

## Teachers

### Dr. Martínez Caballero, Ignacio

- ◆ Head of a department within the Neuro-orthopedics Unit, Orthopedics and Traumatology Service, Niño Jesús Pediatric University Hospital
- ◆ PhD in Medicine and Surgery from the Autonomous University of Madrid.
- ◆ Medical Coordinator of the Movement Analysis Laboratory of the Niño Jesús University Pediatric Hospital in Madrid since 2007

### Dr. González, Rafael

- ◆ PhD in Medicine and Surgery from the University of Salamanca.
- ◆ Specialist in Orthopedic Surgery and Traumatology at the Department of Traumatology and Orthopedic Surgery of the La Paz Hospital in Madrid.
- ◆ Coordinator at the Rachis Unit of the Niño Jesús Pediatric University Hospital.

### Dr. Miranda Gorozarri, Carlos

- ◆ Degree in Medicine and Surgery from the University of Alcalá, Madrid.
- ◆ Specialist in Traumatology and Orthopedic Surgery. Asepeyo Monographic Hospital of Traumatology and Orthopedic Surgery (Madrid).
- ◆ Faculty Specialist for the pediatric traumatology and orthopedics service of the Niño Jesús Pediatric University Hospital.

### Dr. Budke Neukamp, Marcelo

- ◆ Degree in Medicine and Surgery from the Faculty of Medicine of the Federal De Pelotas University in Rio Grande do Sul (Brazil)
- ◆ PhD in Surgery. Autonomous University of Madrid
- ◆ Neurosurgery Attending Physician. Niño Jesús Pediatric University Hospital.

### Dr. Ron Marqués, Alejandra

- ◆ Graduate in Medicine and Surgery. Complutense University of Madrid.
- ◆ Specialist in Orthopedic Surgery and Traumatology.
- ◆ Faculty area specialist of the Pediatric Orthopedics and Traumatology Unit at the University Hospital of Getafe

### Dr. Álvaro Alonso, Alberto

- ◆ Degree in Medicine from the Complutense University of Madrid..
- ◆ Medical specialist in Traumatology and Orthopedic Surgery. Gregorio Marañón General University Hospital. Madrid
- ◆ Neurosurgery coordinator at the Gregorio Marañón General University Hospital. Madrid.

### Dr. García Carrión, Alicia

- ◆ Degree in Medicine and Surgery. Castilla - La Mancha University.
- ◆ Specialist in Orthopedic Surgery and Traumatology. San Carlos Clinical Hospital
- ◆ Medical specialist in Traumatology and Pediatric Orthopedic Surgery at the Cemtro Clinic

### Dr. Villa García, Ángel José

- ◆ Degree in Medicine and Surgery from the University of Salamanca.
- ◆ Medical specialist in Traumatology and Orthopedic Surgery. Gregorio Marañón General University Hospital. Madrid
- ◆ Head of the Department of Traumatology and Pediatric Orthopedics at the Gregorio Marañón General University Hospital. Madrid.
- ◆ Coordinator of the Pediatric Hip and Pediatric Musculoskeletal Oncology Department of the Gregorio Marañón General University Hospital. Madrid

### Dr. Alves, Cristina

- ◆ Orthopedic Physician in the Pediatric Orthopedics Service. Pediatric Hospital - CHUC, EPE

### Dr. Muñoz, Borja

- ◆ Degree in Medicine from the Autonomous University Madrid.
- ◆ Infanta Elena Hospital. Pediatric Orthopedics and Hip-Knee Unit
- ◆ Cemtro Clinic. Pediatric Orthopedic Department.

**Dr. Prato de Lima, Carlos Humberto**

- ◆ Surgeon at the University of the Andes.
- ◆ Traumatology and Orthopedics. Miguel Pérez Carreño Hospital in Caracas, Venezuela.
- ◆ Pediatric Orthopedics, Children's Orthopedics Hospital, Caracas, Venezuela.

**Dr. Martínez González, Carmen**

- ◆ Degree in Medicine and Surgery. Autonomous University of Madrid
- ◆ Spine Unit. Pediatric Spine Deformation.

**Dr. Farrington, David M.**

- ◆ Degree in Medicine and Surgery. University of Seville
- ◆ Faculty specialist at the Department of Pediatric Orthopedic Surgery and Traumatology. Valme University Hospital.
- ◆ Head of the Department of Orthopedic Surgery and Traumatology. Hospital San Juan de Dios del Aljarafe
- ◆ Head of the Pediatric Orthopedic Surgery and Traumatology Department. Virgen del Rocío University Hospital.

**Dr. Abril Martín, Juan Carlos**

- ◆ Graduate in Medicine and Surgery from the University of Valladolid.
- ◆ Specialist in Traumatology and Orthopedic Surgery. Jiménez Díaz Foundation, Madrid.
- ◆ Faculty Area Specialist of O.S.T. at Insalud hospitals.

**Dr. Hernández, Javier Alonso**

- ◆ Medical specialist in Traumatology and Orthopedic Surgery.
- ◆ Assistant to the Pediatric Orthopedics Service of the Niño Jesús Hospital in Madrid
- ◆ Head of the Pediatric Traumatology and Orthopedics Unit at the Cemtro Clinic in Madrid
- ◆ Specialized in Pediatric Traumatology and Orthopedics and in Pediatric Sports Traumatology.

**Dr. Fernandes de Carvalho, Marcos António**

- ◆ Bachelor's Degree in Medicine at the Faculty of Medicine of the University of Coimbra
- ◆ Specific training in Orthopedics and Traumatology at the Hospital and University Center of Coimbra
- ◆ Specialized in Pediatric Orthopedics at the Pediatric Hospital CHUC, EP

**Dr. Chorbadian Alonso, Gonzalo Andrés**

- ◆ Surgeon at the Universidad de Santiago de Chile.
- ◆ Specialist in Orthopedics and Traumatology at the Universidad de Chile.
- ◆ Sub-speciality fellow in Neuro-Orthopedics. Hospital Infantil Universitario Niño Jesús, Universidad Autónoma de Madrid

**Dr. González Zapata, Danilo Javier**

- ◆ Degree in Medicine, University of Santiago de Chile.
- ◆ Medical Specialty in Traumatology and Pediatric Orthopedics, University of Santiago de Chile.
- ◆ Professional title of Medical Surgeon. Approved with Highest Distinction.

**Dr. Soldado, Francisco**

- ◆ Head of the Department of Orthopedic Surgery and Pediatric Traumatology. Barcelona Childrens University Hospital HM nens
- ◆ Director of the Hand, Plexus and Pediatric Microsurgery Unit. Vall Hebron Barcelona Hospital Campus
- ◆ Department of Orthopedic Surgery and Pediatric Traumatology. Vall Hebron Barcelona Hospital Campus

**Dr. Zlotolow, Dan Ariel**

- ◆ Orthopaedic Residency, Montefiore Medical Center
- ◆ Director of the Pediatric Upper Limb Fellowship, Shriners Hospital for Children Philadelphia.

**Dr. Pérez-López, Laura M.**

- ◆ Functional Unit of the Upper Extremity and Congenital Pathologies. Traumatology Unit. Department of Pediatric Orthopedic Surgery and Traumatology, Sant Joan de Déu Materno-Infantil Hospital, Barcelona, University of Barcelona.
- ◆ Referent in Pediatric Orthopedic Surgery and Traumatology at Clínica Diagonal, MediFIATC

**Dr. García Fontecha, César Galo**

- ◆ Sant Joan de Déu hospital. Orthopedics / COTOrthopedics

**Dr. González Morán, Gaspar**

- ◆ Head of the Pediatric Orthopedics Unit. Service of Traumatology and Orthopedic Surgery. La Paz University Hospital, Madrid.
- ◆ Degree in Medicine and Surgery. Navarra University.
- ◆ Specialist in Traumatology and Orthopedic Surgery. La Princesa Hospital, Madrid..

**Dr. Sosa González, Guillermo**

- ◆ Degree in Medicine from the Autonomous University of Madrid.
- ◆ Medical specialist in Traumatology and Orthopedic Surgery. Gregorio Marañón General University Hospital. Madrid
- ◆ Faculty Specialist at the Department of Traumatology and Pediatric Orthopedics at the Gregorio Marañón General University Hospital. Madrid.
- ◆ Pediatric Oncologic Musculoskeletal Faculty specialist at the Gregorio Marañón General University Hospital. Madrid

**Dr. Ortega García, Francisco Javier**

- ◆ Degree in Medicine and Surgery. Autonomous University of Madrid
- ◆ Orthopedic Surgery and Traumatology specialist at the Doce de Octubre Hospital in Madrid, Traumatology II Service
- ◆ Attending Orthopedic Surgery and Traumatology physician at the Doce de Octubre Hospital

**Dr. Abad Lara, José Antonio**

- ◆ Degree in Medicine and Surgery from the University of Córdoba.
- ◆ Specialist in Pediatric Orthopedic Surgery and Traumatology, with exclusive dedication to the management of pediatric orthopedic conditions in the Pediatric Orthopedics Unit of the Hospital Universitario Reina Sofia.
- ◆ Coordinator of the Children's Orthopedics Unit of Reina Sofia University Hospital until 2018.

**Dr. Cabello Blanco, Juan**

- ◆ Specialist in Orthopedic Surgery and Traumatology. Residency at the La Paz University Hospital of Madrid
- ◆ Degree in Medicine from the Complutense University of Madrid.
- ◆ Private practice in Pediatric Traumatology and Orthopedics Internacional Ruber Clinic.

**Dr. Rojas Díaz, Libardo Enrique**

- ◆ Physician and Surgeon at the University of Santander
- ◆ Internal Medicine Physician. University Hospital of Santander

**Dr. Mediavilla Santos, Lydia**

- ◆ Degree in Medicine and Surgery from the Complutense University of Madrid.
- ◆ Medical specialist in Traumatology and Orthopedic Surgery. Gregorio Marañón General University Hospital. Madrid
- ◆ Musculoskeletal Oncology Faculty Specialist. Gregorio Marañón General University Hospital. Madrid.
- ◆ Pediatric Oncologic Musculoskeletal specialist. Gregorio Marañón G.U.H.. Madrid.

**Dr. Salcedo Montejo, María**

- ◆ Medical Specialist in Orthopedic Surgery and Traumatology
- ◆ Member of the Multidisciplinary Unit of skeletal dysplasias at the La Paz Hospital.
- ◆ Orthopedic Surgery and Traumatology service of the Pediatric Orthopedics Unit. La Paz University Hospital, Madrid.



**Dr. del Cura Varas, Marisol**

- ◆ Attending Physician of the Orthopedic Surgery and Traumatology Department of Hospital Ramón y Cajal (Madrid)
- ◆ Degree in Medicine at the U.A.M. (Autonomous University of Madrid).

**Dr. Morcuende, José A.**

- ◆ Board Re-Certification, American Board of Orthopaedic Surgery
- ◆ MD - Autonomous University, Madrid, Spain
- ◆ Fellow (Pediatric/Orthopaedics) - Jiménez Díaz Foundation, Madrid, Spain
- ◆ Resident (Orthopaedics) - Department of Orthopaedic Surgery, University of Iowa Hospitals and Clinics, Iowa City, Iowa

**Dr. Espinazo Arce, Olga**

- ◆ Head of the Pediatric Orthopedics unit of the O.S.T. Service of Basurto Hospital.
- ◆ Degree from the Faculty of Medicine at the Basque Country University.
- ◆ Orthopedic Surgery and Traumatology service of Basurto Hospital.

**Dr. Salom Taverner, Marta**

- ◆ Degree in Medicine and Surgery from the University of Valencia
- ◆ Specialist in Orthopedic Surgery and Traumatology. La Fe University Hospital of Valencia
- ◆ Attending physician at the La Fe University Hospital as a specialist practitioner.

**Dr. Castañeda, Pablo**

- ◆ Professor of Orthopedic Surgery - New York University
- ◆ Head of the unit of pediatric orthopedic surgery. New York University. Hassenfeld Children's Hospital
- ◆ Medical Surgeon graduated from the Universidad Nacional Autonoma de Mexico through the Universidad Anahuac
- ◆ Specialized in Orthopedics and Traumatology from the National Autonomous University of Mexico
- ◆ Sub-specialized in hip and knee reconstructive surgery by the University of Oxford, Nuffield Orthopaedic Centre, Oxford, England
- ◆ Sub-specialized in Pediatric Orthopedics by the Baylor University, Houston, Texas, USA.

**Dr. Vara Patudo, Isabel**

- ◆ Degree in Medicine from the University of Alcalá.
- ◆ Specialist in Orthopedic Surgery and Traumatology at the Príncipe de Asturias University Hospital, Alcalá de Henares, Madrid.
- ◆ Attending Physician of the Orthopedic Surgery and Traumatology Department of the Niño Jesús Pediatric Hospital.

**Dr. Rojo Santamaría, Rita**

- ◆ Degree in Medicine and Surgery. Complutense University of Madrid
- ◆ Specialist in Orthopedic Surgery and Traumatology

**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).

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.





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

## Module 1. Hip

- 1.1. Embryology, Anatomy and Biomechanics of the Hip
- 1.2. Transient Synovitis of the Hip
  - 1.2.1. Aetiopathogenesis.
  - 1.2.2. Differential Diagnosis
  - 1.2.3. Orthopedic Management
- 1.3. Developmental Dysplasia of the Hip in Children Under 18 Months of Age
  - 1.3.1. Concept. Historical Recollection
  - 1.3.2. Dysplasia in Children Under 6 Months of Age
    - 1.3.2.1. Diagnostic Examination
    - 1.3.2.2. Hip Ultrasound. Methods and Interpretation
    - 1.3.2.3. Therapeutic Orientation
  - 1.3.3. Dysplasia in Children aged 6-12 Months
    - 1.3.3.1. Clinical and Radiological Diagnosis
    - 1.3.3.2. Treatment
  - 1.3.4. Dysplasia in Walking Children (>12 Months)
    - 1.3.4.1. Late Diagnosis Errors
    - 1.3.4.2. Treatment Management
- 1.4. Developmental Dysplasia of the Hip in Children Over 18 Months of Age
  - 1.4.1. Definition and Natural History
  - 1.4.2. Etiology and Clinical Manifestations
  - 1.4.3. Clinical and Radiological Classification. Hip Risk Factors
  - 1.4.4. Differential Diagnosis
  - 1.4.5. Treatment
- 1.5. Hip Dysplasia in Older Children and Teenagers
  - 1.5.1. Causes and Types
  - 1.5.2. Diagnostic Guidance
    - 1.5.2.1. Teenage Hip Dysplasia Radiology
    - 1.5.2.2. Complementary Studies of Dysplasia: MRI MRI Arthrography, CT Scan
  - 1.5.3. Treatment
    - 1.5.3.1. Arthroscopic Treatment
    - 1.5.3.2. Open Surgery
      - 1.5.3.2.1. Pelvic Osteotomies. Techniques and Guidelines
      - 1.5.3.2.2. Femoral Osteotomies. Techniques and Guidelines





- 1.6. Legg-Calvé-Perthes Disease
  - 1.6.1. Perthes After-Effects
  - 1.6.2. Syndromic Hip
  - 1.6.3. Chondrolysis
  - 1.6. 4. Arthritis After-Effects (Sepsis, Rheumatic Diseases...)
- 1.7. Epiphysiolysis of the Femoral Head
  - 1.7.1. Diagnosis. The way they are formed
  - 1.7.2. Aetiopathogenesis.
  - 1.7.3. Types of Epiphysiolysis. Pathophysiological Mechanism
  - 1.7.4. Surgical Management
    - 1.7.4.1. In Situ Reduction
    - 1.7.4.2. Modified Dunn Procedure
    - 1.7.4.3. Late Treatment
- 1.8. Coxa vara
  - 1.8.1. Aetiopathogenesis.
  - 1.8.2. Differential Diagnosis
  - 1.8.3. Treatment
- 1.9. Musculoskeletal Pain Around the Hips in Children
  - 1.9.1. Snapping Hip Syndrome
    - 1.9.1.1. Types of Snapping (Internal, External)
    - 1.9.1.2. Treatment
  - 1.9.2. Enthesitis Around the Hips in Children
    - 1.9.2.1. Enthesitis of the Spines (AIIS, ASIS...), Differential Diagnosis and Treatment
    - 1.9.2.2. Ischiatic and Iliac Crest Entheritis Diagnosis and Treatment
- 1.10. Hip Fractures in Children
  - 1.10.1. Biomechanical Implications of the Hip Fractures in Children
  - 1.10.2. Types of Fractures. Classification
  - 1.10.3. Diagnosis and Treatment. Treatment Management
    - 1.10.3.1. Children With Open Physes
    - 1.10.3.2. Children With Skeletal Maturity



## Module 2. knee

- 2.1. Congenital Dislocation of the Knee
  - 2.1.1. Diagnosis and Classification
  - 2.1.2. Etiology
  - 2.1.3. Clinical - Radiological Findings
  - 2.1.4. Differential Diagnosis
  - 2.1.5. Clinical Findings and Associated Lesions
  - 2.1.6. Treatment
- 2.2. Patellofemoral Instability
  - 2.2.1. Prevalence and Etiology
  - 2.2.2. Types: Recurrent Dislocation, Recurrent Subluxation, Habitual Dislocation and Chronic Dislocation
  - 2.2.3. Associated Conditions
  - 2.2.4. Clinical Findings
  - 2.2.5. Radiological Findings
  - 2.2.6. Treatment
- 2.3. Osteochondritis Dissecans
  - 2.3.1. Definition and Aetiology
  - 2.3.2. Pathology
  - 2.3.3. Clinical Radiological Findings
  - 2.3.4. Treatment
- 2.4. Discoid Meniscus
  - 2.4.1. Pathogenesis.
  - 2.4.2. Clinical - Radiological Findings
  - 2.4.3. Treatment
- 2.5. Popliteal Cyst
  - 2.5.1. Definition and Clinical Findings
  - 2.5.2. Differential Diagnosis
  - 2.5.3. Pathology
  - 2.5.4. Diagnostic Tests
  - 2.5.5. Treatment
- 2.6. Apophysitis: Osgood-Schlatter Disease, Sinding-Larsen-Johanson Disease
  - 2.6.1. Definition and Epidemiology
  - 2.6.2. Clinical and Radiological Findings
  - 2.6.3. Treatment
  - 2.6.4. Complications
- 2.7. Ligament Lesions of the Knee: Anterior Cruciate Ligament
  - 2.7.1. Prevalence and Etiology
  - 2.7.2. Diagnosis
  - 2.7.3. Treatment in Patients with Growth Cartilage
- 2.8. Epiphysiolysis of the Distal Femur and Fractures of the Proximal Tibia
  - 2.8.1. Anatomic Considerations. Pathophysiology
  - 2.8.2. Diagnosis
  - 2.8.3. Treatment
  - 2.8.4. Fractures of the Tibial Spines
    - 2.8.4.1. Pathophysiology.
    - 2.8.4.2. Anatomic Considerations
    - 2.8.4.3. Diagnosis
    - 2.8.4.4. Treatment
  - 2.8.5. Anterior Avulsion Fracture
    - 2.8.5.1. Pathophysiology
    - 2.8.5.2. Anatomic Considerations
    - 2.8.5.3. Diagnosis
    - 2.8.5.4. Treatment
  - 2.8.6. Periosteal Tear of the Patella
    - 2.8.6.1. Pathophysiology.
    - 2.8.6.2. Anatomic Considerations
    - 2.8.6.3. Diagnosis
    - 2.8.6.4. Treatment

### Module 3: Pathology of the Foot

- 3.1. Embriology. Malformations and Deformities of the Foot in Newborns
  - 3.1.1. Polydactyly
  - 3.1.2. Syndactyly
  - 3.1.3. Ectrodactyly
  - 3.1.4. Macrodactyly
  - 3.1.5. Calcaneal Valgus or Talus Foot
- 3.2. Congenital Vertical Astragalus
- 3.3. Flexible Valgus Flatfoot
- 3.4. Serpentine Foot
- 3.5. Tarsal Coalition
- 3.6. Metatarsus Adductus and Metatarsus Varus
- 3.7. Congenital Clubfoot
- 3.8. Pes Cavus
- 3.9. Hallux valgus
- 3.10. Toe Pathology
  - 3.10.1. Hallux Varus
  - 3.10.2. Quintus Varus
  - 3.10.3. Quintus Suprproductus
  - 3.10.4. Deformities of Small Toes: Mallet Toe, Hammer Toe, Claw Toe, Clinodactyly
  - 3.10.5. Brachymetatarsia
  - 3.10.6. Constriction Band Syndrome
  - 3.10.7. Agenesis and Hypoplasia of the Toes
- 3.11. Miscellaneous
  - 3.11.1. Osteochondrosis: Köning's Disease, Freiberg's Disease
  - 3.11.2. Apophysitis: Sever's Disease, Iselin's Disease
  - 3.11.3. Os Trigonum Syndrome
  - 3.11.4. Accessory Scaphoid
  - 3.11.5. Osteochondritis Dissecans of the Talus



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

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 Diploma in Lower Limb Orthopedics** guarantees you, in addition to the most accurate and up-to-date training, access to a Postgraduate Diploma issued by **TECH Technological University**.



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

This **Postgraduate Diploma in Pediatric Lower Limb Orthopedics** contains the most complete and updated scientific program on the market.

After the student has passed the assessments, they will receive their corresponding Postgraduate Diploma issued by **TECH Technological University via tracked delivery**.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Pediatric Lower Limb Orthopedics**

**18 ECTS Credits**

Official Number of Hours: **450**



\*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  
development languages  
virtual classroom



**Postgraduate Diploma**  
**Pediatric Lower Limb**  
**Orthopedics**

Course Modality: Online

Duration: 6 months.

Certificate: TECH Technological University

18 ECTS Credits

Teaching Hours: 450 hours.

# Postgraduate Diploma

## Pediatric Lower Limb Orthopedics

