

# Postgraduate Diploma Pediatric Upper Limb and Spine Orthopedics





## Postgraduate Diploma Pediatric Upper Limb and Spine Orthopedics

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-pediatric-upper-limb-spine-orthopedics](http://www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-pediatric-upper-limb-spine-orthopedics)

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# 01

# Introduction

This program will allow you to review chapter by chapter the most important issues facing a pediatric orthopedic surgeon, finding answers to all your concerns in a direct and practical way and offering a complete specialty perspective for any physician who wants to be up-to-date in pediatric orthopedics in upper limb, spine and tumors.





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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 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 Upper Limb and Spine Orthopedics** contains the scientific most complete and up-to-date educational program on the market. The most important features of the program 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 self-assessment can be used 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 Global University"*

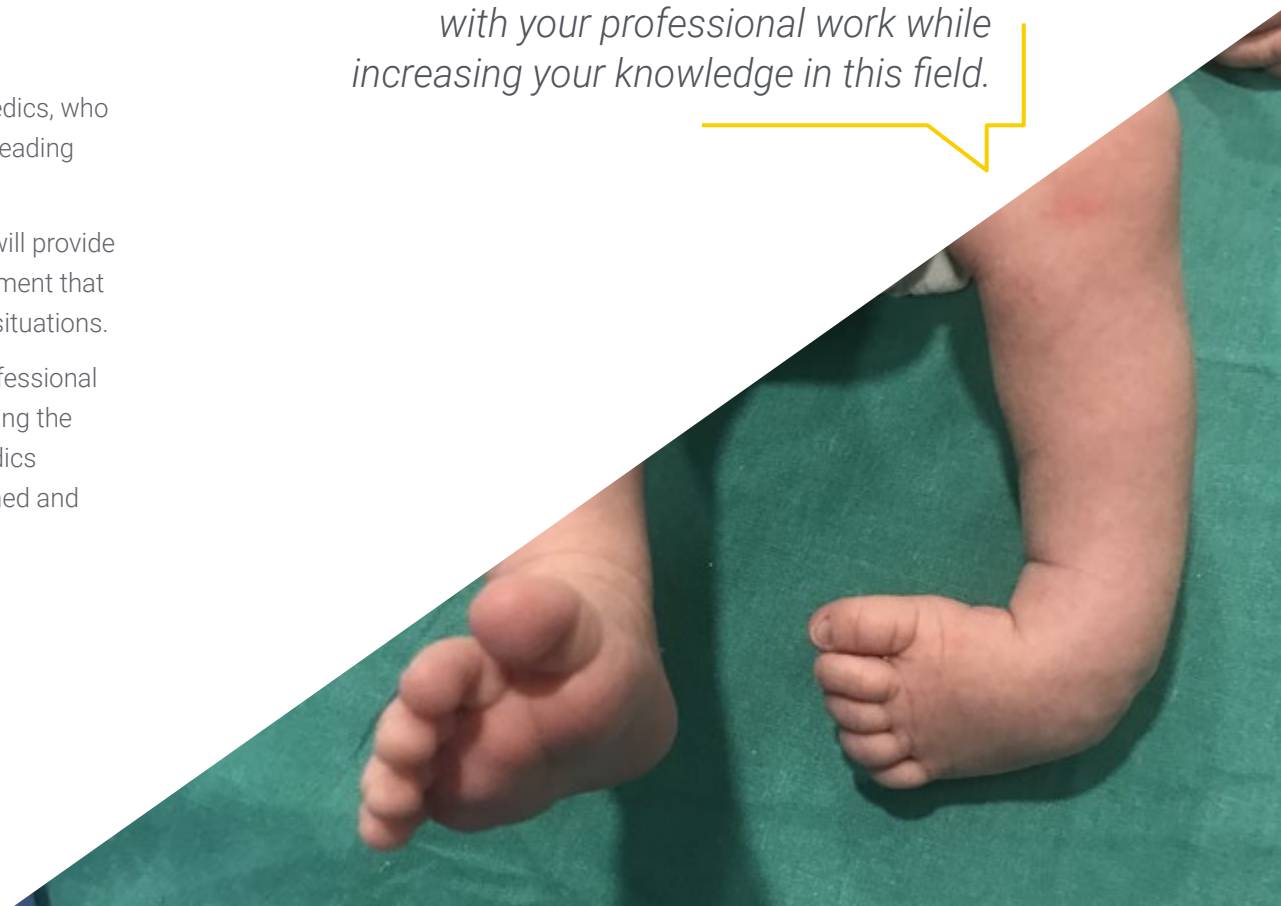
The teaching staff includes professionals from the field of Pediatric Orthopedics, who bring their experience to this training, as well as renowned specialists from leading societies and prestigious universities.

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 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 Upper Limb and Spine 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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- Become familiar with the management of the different congenital and/or acquired alterations affecting the upper limb of growing patients
- Delve into the complementary studies that help us diagnose and make decisions, as well as the appropriate moment to perform them
- Manage therapeutic options, as well as the treatment schedule
- Apply the different surgical techniques used to treat the various pathologies
- Become familiar with the pathology, clinical presentation and management of the most common benign and malignant tumors of the upper extremity affecting children
- Describe the main aspects of spinal pathology in pediatric patients
- Review advances and update knowledge on the management of spinal pathologies in pediatric patients
- Develop the necessary skills to appropriately diagnose and treat pediatric patients with spinal diseases
- Learn how to make a comprehensive and early diagnosis, and guide the treatment of the main musculoskeletal injuries that appear in children





## Specific Objectives

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### Module 1. Upper Limb

- ♦ Delve into the knowledge of the origin and embryology of the different congenital malformations
- ♦ Become familiar with the different congenital malformations, studying the etiopathogenesis, clinical study, complementary studies, classifications and treatments of each pathology
- ♦ Evaluate the possibilities of treating tumors affecting children's hands, including surgical treatment, resections, amputations and reconstructions

### Module 2. Spine

- ♦ Learn the characteristics of the different pathologies around the spine in pediatric patients
- ♦ Learn the most frequent causes of spine deformity
- ♦ Manage the urgency of pediatric patients with spinal pathology, torticollis, atlantoaxial instability
- ♦ Long-term management of patients diagnosed with spinal deformity during infancy
- ♦ Long-term management of patients diagnosed with tumors / fractures during infancy
- ♦ Suspect and learn the management of tumors such as osteoid osteoma, aneurysmal bone cyst, etc.
- ♦ Develop a correct strategy in the differential diagnosis of pathologies that cause spinal pain in pediatric patients
- ♦ Perform the necessary tests to diagnose the different entities

### Module 3. Tumours

- ♦ Learn how to differentiate a lesion with aggressive clinical and radiological characteristics from a non-aggressive one
- ♦ Appropriately guide the diagnostic study of this lesion, and if a musculoskeletal biopsy is necessary, learn how to perform it
- ♦ Learn the latest treatments for the main musculoskeletal injuries in children

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. 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 Río 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 Centro 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
- ♦ Centro 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 Centro 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 the Hospital Universitario Reina Sofia 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 at the Gregorio Marañón General University Hospital. Madrid.
- ♦ Pediatric Oncologic Musculoskeletal Faculty specialist at the Gregorio Marañón General University Hospital. 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 Autónoma de México 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.





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

## Module 1. Upper Limb

- 1.1. Agenesis and Transverse Defects
- 1.2. Radial longitudinal deficiency. Hypoplasias and Agenesis of the Thumb
- 1.3. Ulnar Longitudinal Deficiency. Proximal Radioulnar Synostosis
- 1.4. Pre-axial and Post-axial Polydactyly
- 1.5. Syndactyly. Macrodactyly. Clinodactyly. Camptodactyly. Kirner's Deformity
- 1.6. Amniotic Band Syndrome
- 1.7. Madelung's Deformity
- 1.8. Arthrogryposis
- 1.9. Obstetric Brachial Palsy
- 1.10. Tumors Affecting the Pediatric Hand: Osteochondromatosis, Enchondromatosis and Soft Tissue Tumors

## Module 2. Spine

- 2.1. Surgical Anatomy and Approaches to the Spine
- 2.2. Cervical Spine Pathology
  - 2.2.1. Congenital Torticollis
    - 2.2.1.1. Muscular Congenital Torticollis
    - 2.2.1.2. Kippel-Feil Syndrome
  - 2.2.2. Acquired Torticollis
    - 2.2.2.1. Atlantoaxial Dislocation
    - 2.2.2.2. Other Causes: Inflammatory, Infectious, Sandifer's Syndrome
  - 2.2.3. Cervical Instability: Os Odontoideo
- 2.3. Spine Pathology
  - 2.3.1. Spondylolisthesis
  - 2.3.2. Juvenile Herniated Disc
  - 2.3.3. Scoliosis
  - 2.3.4. Early Onset
  - 2.3.5. Teenage Idiopathic Scoliosis
  - 2.3.6. Congenital Scoliosis
  - 2.3.7. Neuromuscular Scoliosis
  - 2.3.8. Early Onset Scoliosis
  - 2.3.9. Congenital Scoliosis
  - 2.3.10. Neuromuscular Scoliosis
  - 2.3.11. Spine Deformity in Other Syndromes
- 2.4. Spondylolisthesis
- 2.5. Alterations in the Sagittal Plane: Hyperkyphosis, Hyperlordosis
- 2.6. Back Pain in the Pediatric Age
- 2.7. Spinal Tumors
- 2.8. The Main Spine Fractures in Children



## Module 3. Tumours

- 3.1. Overview and Staging of Musculoskeletal Tumors
  - 3.1.1. Epidemiology
  - 3.1.2. Clinical presentation
  - 3.1.3. Imaging Tests
  - 3.1.4. Staging.
    - 3.1.4.1. Benign Tumors
    - 3.1.4.2. Malignant tumours
- 3.2. Biopsy and Treatment Principles
  - 3.2.1. Types of Biopsy
  - 3.2.2. How to Perform a Musculoskeletal Biopsy
  - 3.2.3. Types and Principles of Oncologic Resection
- 3.3. Cystic Lesions
  - 3.3.1. Simple Bone Cyst
  - 3.3.2. Aneurysmal Bone Cyst
- 3.4. Benign Tumors from Cartilage in Children
  - 3.4.1. Osteochondroma. Osteochondromatosis
  - 3.4.2. Enchondroma. Endochondromatosis
  - 3.4.3. Chondroblastoma
  - 3.4.4. Chondromyxoid Fibroma
- 3.5. Benign Tumors from Bones in Children
  - 3.5.1. Osteoma Osteoid
  - 3.5.2. Osteoblastoma
- 3.6. Benign Tumors from Fibrous Tissue in Children
  - 3.6.1. Non-Ossifying Fibroma
  - 3.6.2. Fibrous Dysplasia
  - 3.6.3. Osteofibrous Dysplasia
  - 3.6.4. Langerhans Cell Histiocytosis
- 3.7. Other Tumours. Miscellaneous
  - 3.7.1. Langerhans Cell Histiocytosis. Eosinophilic Granuloma
  - 3.7.2. Giant Cell Tumor
- 3.8. Benign Tumors From Soft Tissue in Children
  - 3.8.1. Ganglion. Popliteal Cysts
  - 3.8.2. Giant cell tumour of the Tendon Sheath. Villonodular Synovitis
  - 3.8.3. Hemangioma
- 3.9. Malignant Bone Tumors of the Pediatric Skeleton
  - 3.9.1. Ewing Sarcoma
  - 3.9.2. Osteosarcomas
  - 3.9.3. Surgical Treatment Options for Unformed Skeletons
- 3.10. Malignant Tumors in Soft Tissue in Children
  - 3.10.1. Rhabdomyosarcoma
  - 3.10.2. Synovial Sarcoma
  - 3.10.3. Congenital Fibrosarcoma



*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

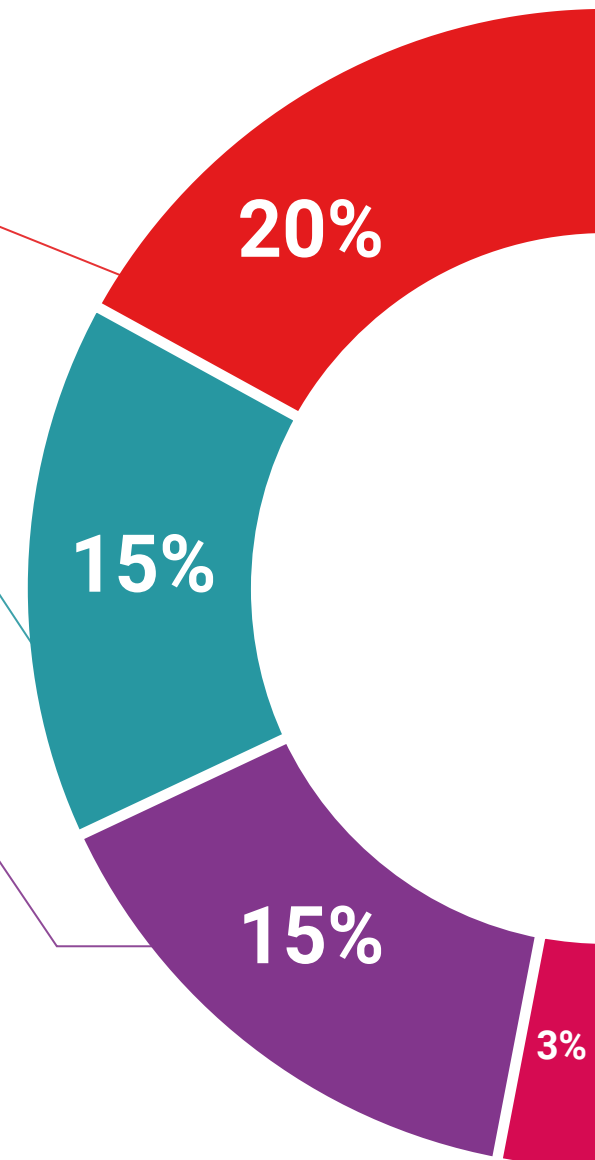
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

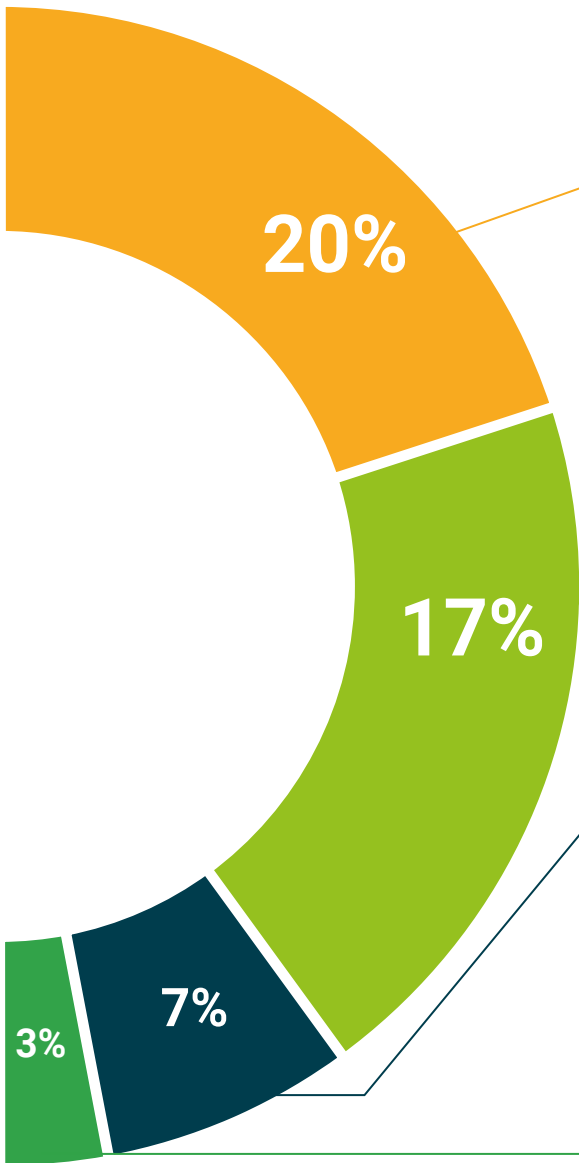


#### Additional Reading

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 Pediatric Upper Limb and Spine Orthopedics guarantees you, in addition to the most rigorous and updated training, access to a Master degree issued by TECH Global University





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

This program will allow you to obtain your **Postgraduate Diploma in Pediatric Upper Limb and Spine Orthopedics** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (**official bulletin**). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Pediatric Upper Limb and Spine Orthopedics**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



future  
confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development language  
virtual classroom



**Postgraduate Diploma**  
Pediatric Upper Limb  
and Spine Orthopedics

- » Modality: online
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- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma

## Pediatric Upper Limb and Spine Orthopedics

