

# Postgraduate Diploma

## Fractures and Pathology of the Shoulder Girdle





## Postgraduate Diploma Fractures and Pathology of the Shoulder Girdle

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

Website: <https://portal-tech-eu-win.azurewebsites.net/us/medicine/postgraduate-diploma/postgraduate-diploma-fractures-pathology-shoulder-girdle>

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# 01

# Introduction

Difficulty in maintaining alignment and stability of the scapula fracture can be a common problem when treating this injury and requires specialized techniques and additional care to ensure proper healing. For this reason it is important that the physician is updated in the most avant-garde techniques when dealing with this and other injuries present in the Shoulder Girdle. For this reason TECH, has developed a 100% online program, which allows the professional to be updated on congenital and rheumatic pathologies, fractures and the approach to the degenerative shoulder. In addition, this program will allow the specialist to carry out his daily activities without neglecting his more demanding professional responsibilities.



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*With TECH you will update your knowledge in Fractures and Pathology of the Shoulder Girdle and about the phylogeny, embryology and ossification of the shoulder"*

Because of their shape and anatomical position, scapula fractures can be challenging to treat. Nevertheless, ongoing research in the field of Traumatology and Orthopedics has allowed the development of new techniques and approaches, as well as the study of improved methods of rehabilitation and postoperative management. For this reason, keeping up to date with these advances ensures that doctors can offer their patients the best possible treatment, optimizing results.

Faced with this reality, TECH has designed this program that allows the professional to experience an update on Fractures and Pathologies of the Scapular Belt. In this way, the specialist will deepen in dysplasias affecting the Shoulder, Obstetric Brachial Palsy and Shoulder Infections. They will also delve into Proximal Humerus, Clavicle and Scapula Fractures.

In addition, thanks to the scientific literature provided in this program, the graduate will be updated on the latest scientific evidence on the use of shoulder prostheses, primary osteoarthritis and traumatic complications in shoulder arthroplasty.

Likewise, this program offers flexibility, which will allow the professional to access it at any time and place. In addition, this program integrates the Relearning system in its methodology, which will allow you to remember the most relevant concepts in less time. All of this is accompanied by a series of multimedia materials stored in an online library with unlimited access during the course of this Postgraduate Diploma.

This **Postgraduate Diploma in Fractures and Pathology of the Shoulder Girdle** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of case studies presented by expert orthopedic surgeons
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*You will delve into the most advanced conservative and surgical techniques for treating fractures of the scapular girdle"*

“

*With this program you will update your skills in the management of the main complications and sequelae of proximal humerus fractures”*

The program includes in its teaching staff professionals from the sector who bring to this program the experience of their work, as well as recognized specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby students must try to solve the different professional practice situations that arise throughout the program. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*In only 6 months you will expand your knowledge about diseases such as Neurofibromatosis and Collagen and Soft Tissue disorders.*

*It delves through the best didactic material into the proper diagnosis and therapeutic algorithm to treat rheumatic patients.*

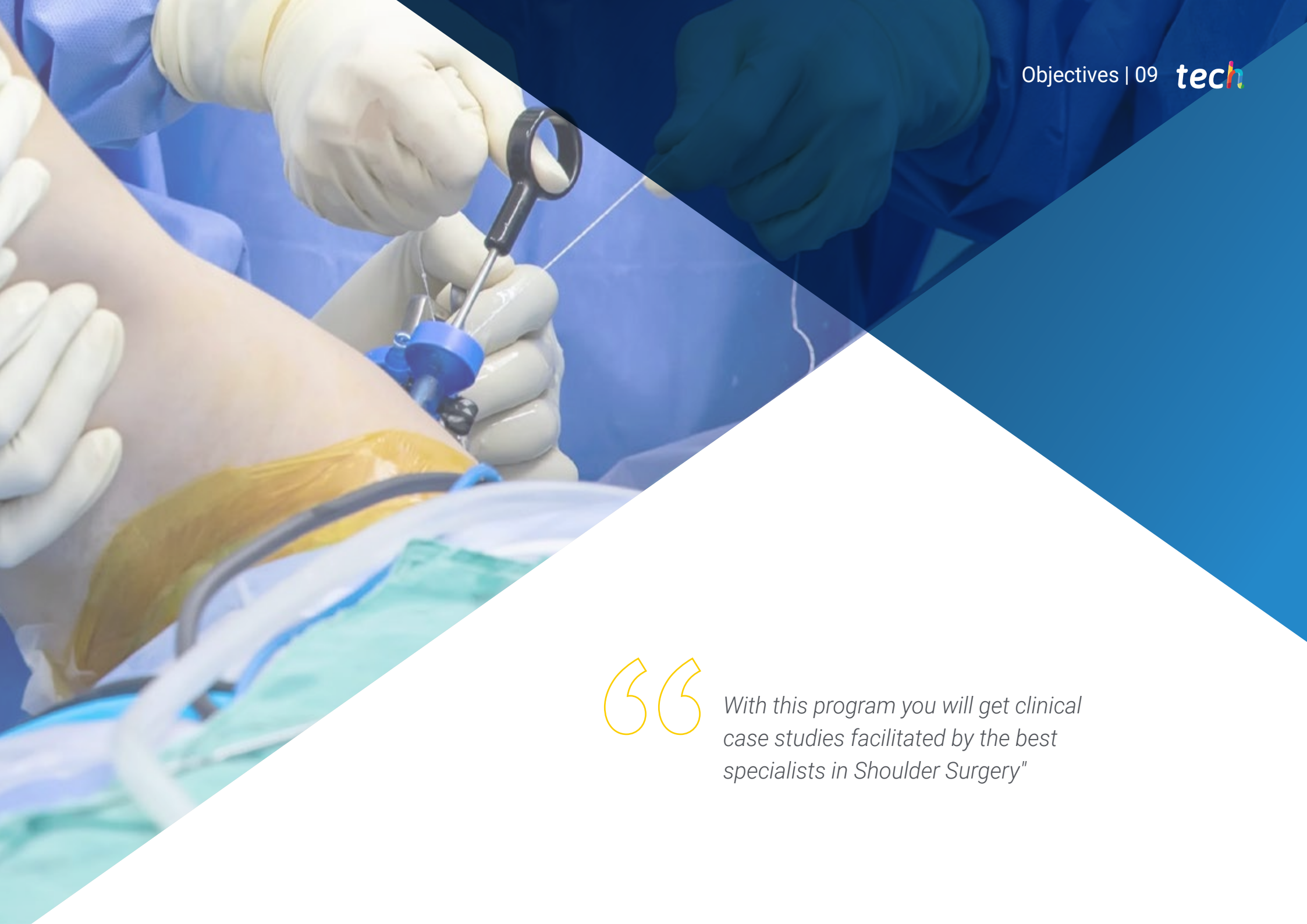


# 02 Objectives

The main objective of this program is to provide the physician with the most updated knowledge on Fractures and Shoulder Fracture Pathology. Therefore, by keeping up to date, the specialist will be aware of medical advances, new diagnostic and treatment techniques, as well as best practices in the management of these specific lesions. All this, in a 100% online mode and enjoying revolutionary didactic resources in the pedagogical field.







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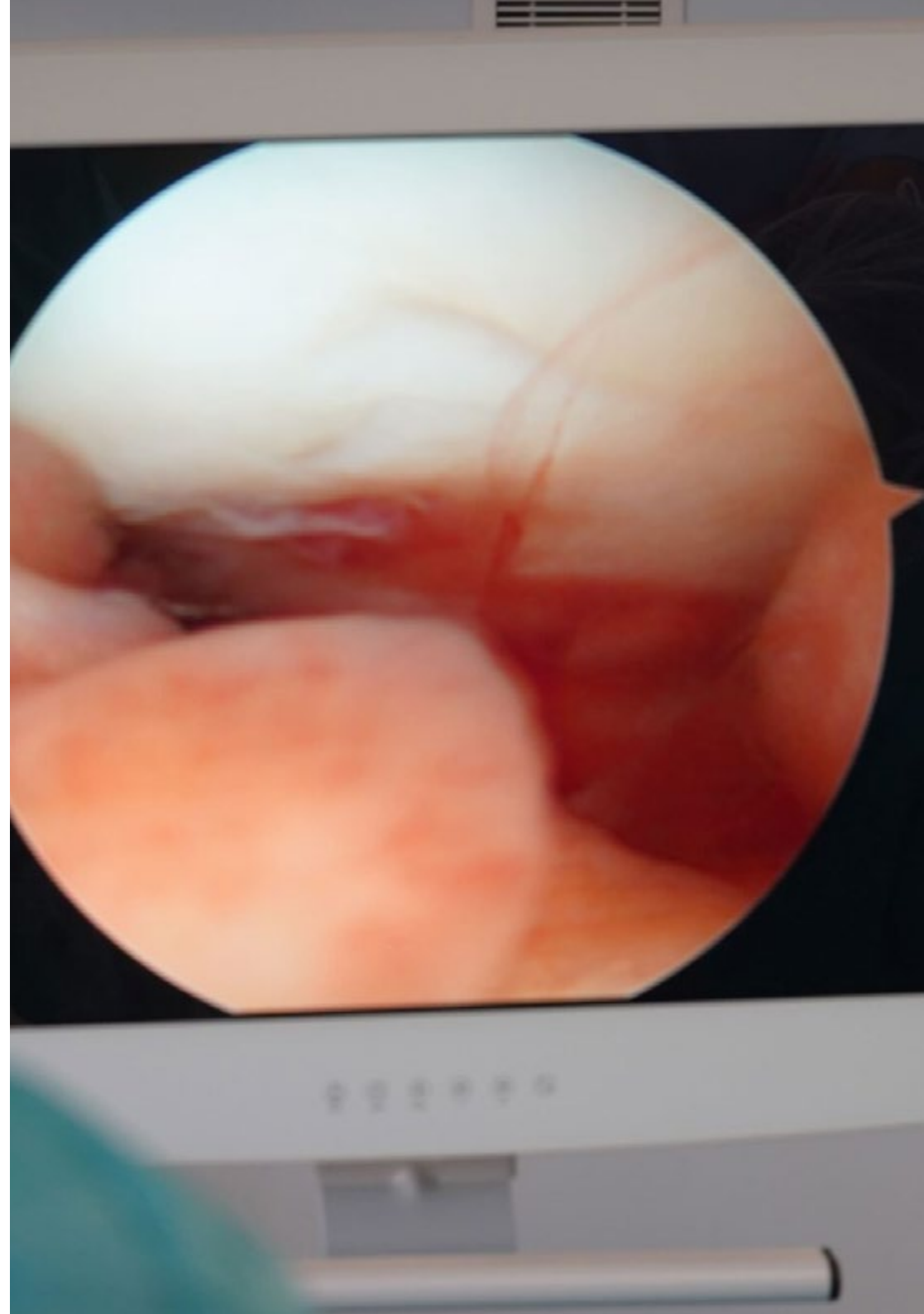
*With this program you will get clinical case studies facilitated by the best specialists in Shoulder Surgery”*



## General Objectives

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- ♦ Analyze the macroscopic anatomy of the shoulder
- ♦ Determine the different approaches to open surgery
- ♦ Introducing the arthroscopic portals of shoulder surgery
- ♦ Delve into new technologies in anatomy and shoulder surgery
- ♦ Examine the usefulness of different radiological techniques in the diagnosis of certain shoulder pathologies
- ♦ Define ultrasound scans as a treatment technique in some shoulder pathologies
- ♦ Expose the usefulness of nuclear medicine in shoulder pathology
- ♦ Compile the different objective, subjective and quality of life scales
- ♦ Show embryology of the shoulder
- ♦ Grouping of shoulder pathologies affecting children: dysplasias, fractures and other acquired pathologies
- ♦ Development of rheumatologic, tumor and infectious diseases
- ♦ Deepening the role of anesthesia in the shoulder





## Specific Objectives

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### Module 1. Congenital, pediatric and rheumatic pathologies, infections and tumors. Anesthesia

- ♦ Delve into in the embryology of the shoulder
- ♦ Present congenital pathologies affecting the shoulder and acquired pathologies affecting the shoulder in childhood
- ♦ Examine the different rheumatic pathologies affecting the shoulder (villonodular synovitis, among others)
- ♦ Analyze the infections that can affect the shoulder (septic arthritis, among others)
- ♦ Identify tumors that may affect the scapular girdle

### Module 2. Scapular Waist Fractures

- ♦ Address the most commonly used classifications of Proximal Humerus fractures
- ♦ Establish the indications for conservative treatment of proximal humerus fractures and the indications for surgical treatment of proximal humerus fractures: osteosynthesis and arthroplasty
- ♦ Examine the therapeutic indications in dislocation fracture and tuberosity avulsion
- ♦ Analyze the possible complications and sequelae of proximal humerus fractures
- ♦ Determine the classifications of clavicle fractures and indications for conservative treatment
- ♦ Develop the indications and techniques of osteosynthesis in the surgical treatment of clavicle fractures
- ♦ Specify the classifications of scapula fractures and the indications for conservative treatment

### Module 3. Degenerative shoulder

- ♦ Delve into in the scientific evidence in shoulder arthroplasty
- ♦ Investigate primary omarthrosis from the point of view of its etiology, anamnesis and conservative and surgical treatments
- ♦ Master the therapeutic indications in post-traumatic osteoarthritis and expose surgical techniques
- ♦ Address avascular necrosis, etiology and indications for conservative and surgical treatment
- ♦ Define possible traumatic complications and indications for conservative and surgical treatment
- ♦ Expose the mechanical complications and their therapeutic algorithm
- ♦ Develop the subject of infectious complications and their adequate treatment from a multidisciplinary point of view, both medical and surgical



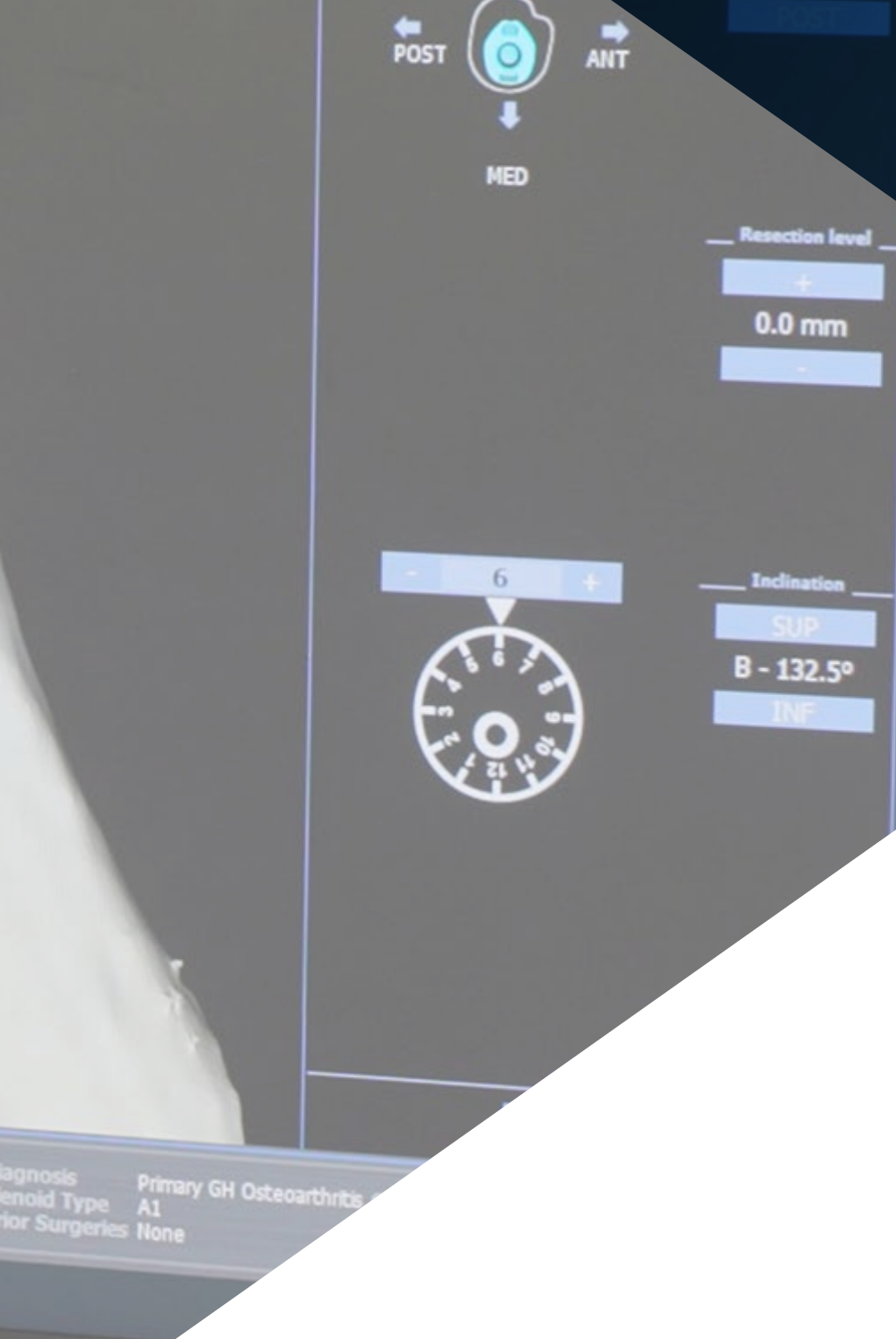
*You will evaluate the most common tumors affecting the shoulder girdle and apply the most effective treatment or therapeutic algorithm"*

# 03

## Course Management

In order to maintain the excellence that characterizes TECH, this program has an academic team made up of recognized experts in the field of Orthopedics and Traumatology, as well as specialists in Shoulder Surgery with expertise in other joints. These professionals have extensive skills in the management of shoulder girdle diseases, surgical procedures and rehabilitation therapy. Therefore, the professional will have the security of receiving an innovative update from active and constantly developing experts in this specialty.





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*Solve any doubts you may have about the content of this program with the excellent specialized teaching team that integrates it”*

## Management



### Dr. Fernández Cortiñas, Ana Belén

- ♦ Traumatologist at Cosaga Hospital
- ♦ Traumatologist (Shoulder Visiting Fellow) at the Massachusetts General Hospital
- ♦ Traumatologist at the Ourense University Hospital Complex
- ♦ Traumatologist at Gambo General Rural Hospital
- ♦ Journal Clinical Epidemiology Reviewer Affiliation: Clinical epidemiology
- ♦ Scientific Journal Medical Science Melville USA Reviewer
- ♦ Dr. in Medicine and Surgery from the Complutense University of Madrid
- ♦ Specialist in Orthopedic and Trauma Surgery
- ♦ Degree in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Member of: Spanish Association of Orthopedic Surgery and Traumatology (SECOT), Spanish Society of Shoulder and Elbow Surgery (SEHC), Spanish Association of Arthroscopy (AEA), Spanish Society of Sports Traumatology (SETRADE)



### **Dr. López Fernández, Vanesa**

- ♦ Attending Doctor of Orthopedic Surgery and Traumatology, Arthroscopy Unit at the Hospital Rey Juan Carlos
- ♦ Attending Doctor of Orthopedic Surgery and Traumatology at the Jiménez Díaz Foundation Hospital
- ♦ Clinical and research fellowship in shoulder, hand and upper limb surgery at the Clinique Generale d'Annecy
- ♦ Clinical and research fellowship in shoulder and elbow surgery under the supervision of Dr. Emilio Calvo and Dr. Foruria at the Jiménez Díaz Foundation
- ♦ Professor and member of the scientific committee of the CURSOCOT for the training of residents and attendings (recertification courses) in Orthopedic Surgery and Traumatology
- ♦ Honorary Professor of Orthopedic Surgery and Traumatology Universidad Rey Juan Carlos
- ♦ Dr. in Medicine from the University of Santiago de Compostela with a doctoral thesis entitled "Effect of intra-articular hyaluronic acid in experimental synovitis"
- ♦ Degree in Medicine from the Santiago de Compostela University
- ♦ Master's Degree in Orthopedic Surgery and Traumatology from San Pablo CEU University
- ♦ Postgraduate Diploma in Orthopedic Surgery and Upper Limb Traumatology from San Pablo CEU University
- ♦ Postgraduate Diploma in Orthopedic Surgery and Traumatology of the Pelvis, Hip and Pediatric Traumatology from San Pablo CEU University
- ♦ Postgraduate Diploma in Orthopedic Surgery and Traumatology of the knee, ankle and foot by San Pablo CEU University
- ♦ Postgraduate Diploma in Orthopedic Surgery and Traumatology of the Spine, Tumors and Infections, San Pablo CEU University

## Professors

### Dr. Pérez Fierro, María

- ♦ Associate Chief of the Rheumatology Service of the Rey Juan Carlos Hospital
- ♦ Associate Rheumatologist of the Rheumatology Service of the Hospital de Villalba
- ♦ Associate Rheumatologist, Rheumatology Department, Julio Perrando Hospital
- ♦ Associate Rheumatologist of the Rheumatology Department of the Jiménez Díaz Foundation
- ♦ Alcobendas City Hall Doctor
- ♦ Research Doctor of the Cardiology Department of the Hospital Clínico San Carlos
- ♦ Specialist in Rheumatology at the Fundación Jiménez Díaz
- ♦ Master's Degree in Autoimmune Diseases from the University of Barcelona
- ♦ Degree in Medicine and Surgery from the National Northeastern University
- ♦ Postgraduate Certificate in Advanced Studies in Internal Medicine and Immunology from the Complutense University of Madrid

### Dr. Cánovas Martínez, María Luz

- ♦ Anesthesiologist of CHU Ourense
- ♦ Head of the Pain Section
- ♦ Anesthesiology, Resuscitation and Pain Specialist
- ♦ Lecturer in doctoral programs at the University of Vigo
- ♦ Lecturer at the European University Miguel de Cervantes and the Catholic University of Valencia
- ♦ Doctor of Medicine, University of Santiago de Compostela
- ♦ Degree in Medicine from the Santiago de Compostela University
- ♦ Accreditation in Radiofrequency Techniques Basic and Advanced Levels
- ♦ Accreditation in Pain Ultrasound Basic and Advanced Levels

### Dr. Morcillo-Barrenechea, Diana

- ♦ Assistant Doctor in the Traumatology and Orthopedic Surgery Service at Ibermutua
- ♦ Assistant Doctor in the Shoulder and Elbow Unit of the Traumatology and Orthopedic Surgery Department at the Jiménez Díaz Foundation
- ♦ Volunteering in the Traumatology Service as support after earthquake in Nepal
- ♦ Volunteering with Doctors of the World in the Traumatology and Orthopedic Surgery Service in Palestine
- ♦ Specialist in Orthopedic and Trauma Surgery
- ♦ Degree in Medicine from the University of Valladolid
- ♦ Recognition of Research Sufficiency in the area of Microbiology at the University of Valladolid
- ♦ Member of: Spanish Society of Orthopedic Surgery and Traumatology, Spanish Society of Shoulder and Elbow Surgery, Spanish Association of Arthroscopy

### Dr. Patiño, Paul

- ♦ Arthroscopic Surgeon and Traumatologist at Angel Foianini Clinic
- ♦ General Director and head surgeon of the arthroscopic surgery team of Artrocentro
- ♦ Arthroscopic Surgeon and Traumatologist at Private Bank Health Fund and Incor Clinic
- ♦ Orthopedic surgeon specialized in shoulder and elbow pathology
- ♦ Surgeon from the Universidad Mayor of San Simón
- ♦ Postgraduate Certificate in Arthroscopic Surgery from the National Autonomous University of Mexico
- ♦ Postgraduate Certificate in Articular Surgery and Arthroscopy from the National Autonomous University of Mexico
- ♦ High Specialization Program in Shoulder Surgery of the Catholic University of Buenos Aires
- ♦ Research Fellow in Arthroscopic Surgery and Sports Medicine



**Dr. Claro, Rui**

- ◆ Chief of the Shoulder Unit of the University Hospital Center of Santo António
- ◆ Orthopedic Specialist in the Department of Orthopedics of CHUdSA
- ◆ Coordinator of the Shoulder and Elbow Section of the Portuguese Society of Orthopedics and Traumatology
- ◆ Lecturer in the discipline of Orthopedics at ICBAS at the University of Porto
- ◆ Degree in Medicine from the University of Oporto
- ◆ Member of: President of the Portuguese Shoulder and Elbow Society, Portuguese National Delegate of the European Society of Shoulder and Elbow Surgery (SECEC-ESSSE), Member of the Registry Committee of the SECEC-ESSSE, Member of the Portuguese Society of Orthopedics and Traumatology (SPOT), Member of the SECEC-ESSSE, Member of the SPOC, Member of the SPOT, Member of the Portuguese Medical Society

**Dr. González Hernández, Eduardo**

- ◆ Hand Surgery Specialist
- ◆ Fellow for the American Academy of Orthopaedic Surgeons
- ◆ Fellow Microsurgery at Chang Gung Memorial Hospital
- ◆ Master's Degree from the University of Texas
- ◆ Hand Surgeon by the Hand Center of San Antonio
- ◆ Hand Surgeon, Plastic and Reconstructive Surgery, Stanford University Medical Center
- ◆ Medical Degree from the University of Texas
- ◆ Diploma by the *American Board of Orthopaedic Surgeons*
- ◆ Member of: *American Academy of Orthopaedic Surgeons, American Association of Hand Surgeons, AOA, Medical Honor Society, Board of Directors of the American Fracture Association, Former President of the Hand Federation, Mexican Society of Hand Surgery of the West, Argentine Association of Hand Surgery*

**Dr. Rodríguez del Real, Maria Teresa**

- ♦ Specialist in Orthopedic Surgery and Traumatology, subspecialty in children at the Getafe University Hospital
- ♦ Specialist Doctor in the area of child Traumatology on call at the Niño Jesús University Hospital
- ♦ Visiting fellowship en Imprefect Osteogenesis en el Sheffield Children's Hospital
- ♦ Teacher of Orthopedic Surgery and Traumatology internship students at the Madrid European University
- ♦ Teacher for pediatricians at the Niño Jesús University Children's Hospital
- ♦ in the program Professional Master's Degree in Pediatric Orthopedics
- ♦ Degree in Medicine from the Autonomous University Madrid
- ♦ Master's Degree in Orthopedics for Children by the CEU Cardenal Herrera University
- ♦ Master's Degree in Assimilation and Resolution of Clinical Cases in Medicine from the University of Alcalá, Spain
- ♦ Member of: Spanish Society of Pediatric Orthopedics (SEOP), Spanish Society of Orthopedic Surgery and Traumatology (SECOT)

**Dr. Navarro Bosch, Marta**

- ♦ Specialist in Orthopedic Surgery and Traumatology, Shoulder and Elbow Unit, La Fe University Hospital
- ♦ Specialist in Orthopedic Surgery and Traumatology at Casa de Salud Hospital
- ♦ Specialist in Orthopedic Surgery and Traumatology at the Malva-Rosa Hospital
- ♦ Traumatology and Orthopedic Surgery teacher at Pre-Mir Academy
- ♦ Teacher in the National Plan of Shoulder and Elbow Surgery of the SEHC
- ♦ Degree in Medicine and Surgery from the University of Valencia

**Dr. Río Gómez, Antía**

- ♦ Anesthesiologist and Pain Management at COSAGA
- ♦ Anesthesiologist at the University Hospital Complex of Ourense - CHUO
- ♦ CHUO
- ♦ Resident tutor at CHUOU
- ♦ Degree in Medicine from the Santiago de Compostela University
- ♦ Anesthesia, Resuscitation and Pain Therapeutics

**Dr. Navas Clemente, Iván**

- ♦ Medical Specialist in Internal Medicine at the Hospital Universitario Rey Juan Carlos
- ♦ Assistant Doctor of the Emergency Department at the University Hospital of Fuenlabrada
- ♦ Residency in Internal Medicine at the University Hospital of Fuenlabrada
- ♦ Lecturer associated with the Faculty of Medicine of the Rey Juan Carlos University
- ♦ Master's Degree in Infectious Diseases and Antimicrobial Treatment from Cardenal Herrera University
- ♦ Degree in Medicine from the University of Alcalá de Henares

**Dr. Amor Gámez, Fernando**

- ♦ Assistant Doctor in the Rehabilitation Service at the Osteoarticular Pathology Unit of the Rey Juan Carlos University Hospital
- ♦ Specialist in non-surgical pathology at the Hip Unit of University Clinic of Navarra based in Madrid
- ♦ Professional Master's Degree in Musculoskeletal Ultrasound and Interventional Ultrasound by the San Pablo Andalucía CEU Foundation
- ♦ Master's Degree in Clinical Medicine from the Camilo José Cela University
- ♦ Degree in Medicine from Universidad Rey Juan Carlos

**Dr. Torres, Byron**

- ♦ Orthopedic Orthopedic Traumatologist Doctor
- ♦ Doctor in Hospital Metropolitano, Hospital Vozandes, Hospital De Los Valles, Salud S.A., Ecuasanas S.A
- ♦ Professor of the Orthopedics and Traumatology Postgraduate Course of the P.U.C.E
- ♦ Professor of the Orthopedics and Traumatology Postgraduate Course of the Loja National University / Pichincha Clinic
- ♦ Professor of the International Course on Sports Traumatology
- ♦ Fellow in Shoulder and Elbow Reconstructive and Arthroscopic Surgery at the Humanist Center and Concordia Hospital
- ♦ Fellow in Shoulder and Elbow Reconstructive and Arthroscopic Surgery at Imbanaco Medical Center
- ♦ Fellowship in Knee Surgery and Sports Medicine by the Latin American Society of Arthroscopy
- ♦ Medical Degree from Central University of Ecuador
- ♦ Doctor of Medicine and Surgery, School of Medicine
- ♦ Specialist in Orthopedics and Traumatology from the International University of Ecuador
- ♦ Member of: Founder of the Ecuadorian Society of Shoulder and Elbow Surgery, American Academy of Orthopedics of Traumatology AAOS, Ecuadorian Society Of Traumatology, Latin American Society Of Knee Arthroscopy And Sports Traumatology S.L.A.R.D

**Dr. Fraga Collarte, Manuel**

- ♦ Specialist in Orthopedic Surgery and Traumatology at the Niño Jesús University Children's Hospital
- ♦ Specialist in orthopedic surgery and traumatology, subspecialty in children at the University of Orense Ourense Hospital Complex
- ♦ Visiting fellowship at the Niño Jesús University Children's Hospital

- ♦ Observership in Prosthetic Hip and Knee Surgery at Helios Endo-Klinik, Hamburg
- ♦ Doctor in the Shoulder, Knee and Wrist Arthroscopy Unit at the Santa Cristina University Hospital
- ♦ Traumatology and Orthopedic Surgery Service Doctor at the Santa Cristina University Hospital
- ♦ Doctor of the Vascular Surgery Service at the University of Orense Ourense Hospital Complex
- ♦ Teacher for pediatricians at Niño Jesús University Children's Hospital
- ♦ Teacher in Professional Master's Degree in Orthopedics for Children at CEU Cardenal Herrera University
- ♦ Degree in Medicine from the University of Santiago de Compostela
- ♦ Professional Master's Degree in Orthopedics for Children CEU Cardenal Herrera University
- ♦ Member of: Spanish Society of Pediatric Orthopedics (SEOP), Spanish Society of Orthopedic Surgery and Traumatology (SECOT), Medical Records Committee of the Children's Hospital. Niño Jesús University, Violence Commission of the Children's Hospital. Niño Jesús University

**Dr. Ashton, Fiona**

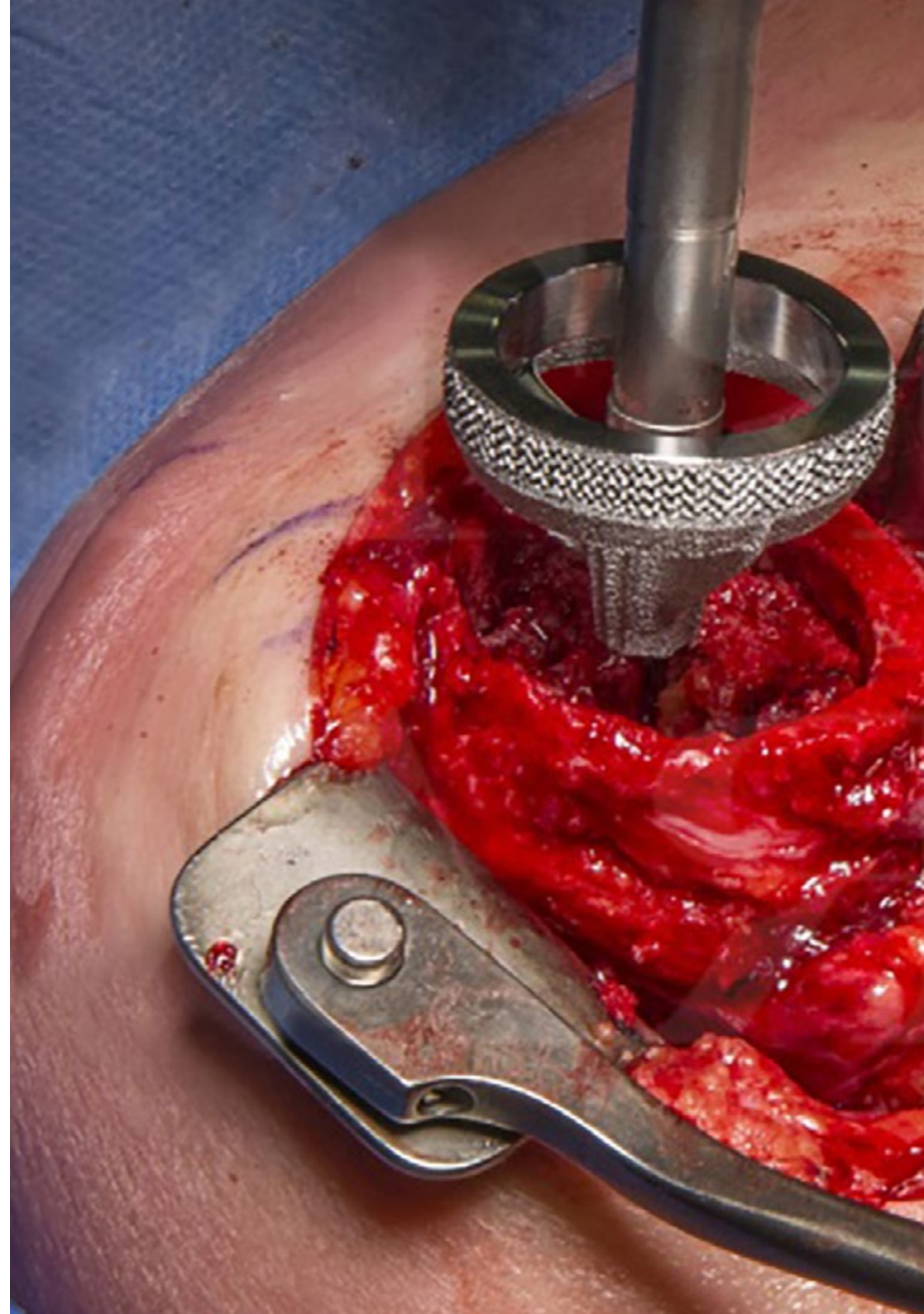
- ♦ Specialist in Orthopedics and General Surgery
- ♦ Upper Limb Specialist
- ♦ Specialist in Pediatric Orthopedics
- ♦ Spine Surgery Specialist
- ♦ Foot and Ankle Surgery Specialist
- ♦ Specialist in Hand and Wrist Surgery
- ♦ Specialist in Shoulder and Elbow Surgery
- ♦ Postgraduate in Research by MD Medical Sciences
- ♦ Medical Degree from the University of Edinburgh

**Dr. Alfonso Fernández, Ana**

- ♦ Area Specialist at the University Hospital of Álava
- ♦ Area Specialist Doctor at Sierrallana Hospital
- ♦ Fellowship in Upper Extremity Surgery at the University of Ottawa
- ♦ Area Specialist Doctor at the Marqués de Valdecilla University Hospital
- ♦ Associate Professor in the Department of Medical and Surgical Sciences. Orthopedic Surgery and Traumatology of the University of Cantabria
- ♦ Degree in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Doctor of Medicine, University of Cantabria, Spain
- ♦ Member of: Spanish Society of Orthopaedic Surgery and Traumatology (SECOT)

**Dr. Hurtado Chávez, Juan Arturo**

- ♦ Traumatologist at the San Gabriel Clinic
- ♦ Traumatologist at Luis Alberto Barton Thompson Hospital
- ♦ Traumatologist at Providencia Clinic
- ♦ Traumatologic Emergency Care Doctor at San Bernardo Clinic
- ♦ Health Officer and Chief of the Medical Department, Peruvian Navy
- ♦ Teacher in Undergraduate, Internship and Residency in Orthopedics and Traumatology at the Mayor Santiago Távara Naval Medical Surgery Center
- ♦ Speaker at SLAOT Forums
- ♦ Fellow in Shoulder Surgery from the University of Geneva
- ♦ Orthopedic Surgeon from the San Marcos National Higher University
- ♦ Medical Surgeon, Tacna Private University
- ♦ Postgraduate degree in Orthopedic Surgery and Traumatology from the San Marcos National Higher University





**Dr. Rodríguez Brotat, María**

- ◆ Specialist Orthopedic Surgery and Traumatology Doctor at Infanta Elena University Hospital
- ◆ Traumatology and Orthopedic Surgery Specialist: Palencia Medical Clinic
- ◆ Traumatology and Orthopedic Surgery Specialist Specialist, Palencia University Welfare Complex
- ◆ Traumatology and Orthopedic Surgery Specialist at Our Lasy of Sonsoles Hospital
- ◆ Specialist in Traumatology and Orthopedic Surgery at Valladolid University Clinical Hospital
- ◆ Traumatology and Orthopedic Surgery Traumatology and Orthopedic Surgery Teaching Collaborator Infanta Elena University Hospital
- ◆ Teaching collaborator of the Department of Anatomy at the University of Valladolid
- ◆ Teaching collaborator with family doctors in the Palencia University Welfare Complex
- ◆ Fellowship in shoulder and elbow University College London Hospital/St. John and St. Elisabeth hospital
- ◆ Degree in Medicine from the Complutense University of Madrid
- ◆ Postgraduate degree in Biomedical Sciences from the Madrid Complutense University
- ◆ Master's Degree in Knee Pathology from the International University of Andalusia
- ◆ Master's Degree in Shoulder Pathology from the International University of Andalusia

# 04

## Structure and Content

This Postgraduate Diploma brings together the most relevant concepts in the field of Fractures and Pathologies of the Shoulder Girdle. In this way, the professional will obtain a broadening in his competences and will deepen in the embryology of the Shoulder, the total Inverted Shoulder arthroplasty and the Rotator Cuff Arthropathy through the best didactic material. He will also delve into the surgical treatment of shoulder arthroplasty and scapular girdle pathologies in pediatrics. All with the flexibility provided by TECH's 100% online methodology.



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*Thanks to the Relearning method you will optimize your study time by focusing efficiently on the key concepts, avoiding investing long hours in the study process"*

## Module 1. Congenital, pediatric and rheumatic pathologies, infections and tumors. Anesthesia

- 1.1. Phylogeny, Embryology and Ossification of the Shoulder
  - 1.1.1. Phylogeny of the Shoulder
  - 1.1.2. Shoulder Embryology
  - 1.1.3. Shoulder Ossification
- 1.2. Dysplasias affecting the shoulder
  - 1.2.1. Congenital Shoulder Pathology
  - 1.2.2. Dysplasias and syndromes involving the shoulder girdle
  - 1.2.3. Orthopedic and surgical management
- 1.3. Obstetric Brachial Palsy
  - 1.3.1. Types of obstetric brachial palsy
  - 1.3.2. Clinical Manifestations and Differential Diagnosis
  - 1.3.3. Treatment
  - 1.3.4. Residual deformities and management
- 1.4. Fractures of the proximal humerus, clavicle, scapula and acromioclavicular joint injuries in children
  - 1.4.1. Shoulder fractures in children
  - 1.4.2. Shoulder dislocations in children
  - 1.4.3. Other Acquired Shoulder Problems in Children
- 1.5. Metabolic bone pathology. Diseases due to alteration of osteoclastic function.. Collagen and soft-tissue disorders
  - 1.5.1. Metabolic bone pathology
  - 1.5.2. Diseases due to alteration of osteoclastic function
  - 1.5.3. Neurofibromatosis
  - 1.5.4. Collagen and soft-tissue disorders
- 1.6. Rheumatic diseases affecting the Shoulder
  - 1.6.1. Rheumatic diseases affecting the shoulder girdle
  - 1.6.2. Diagnosis of rheumatic diseases affecting the shoulder
  - 1.6.3. Therapeutic algorithm and aspects to be taken into account in the surgical treatment of rheumatic patients

- 1.7. Shoulder Infections
  - 1.7.1. Anamnesis and Physical Examination
  - 1.7.2. Etiopathogenesis
  - 1.7.3. Diagnosis of Shoulder Infections
  - 1.7.4. Medical and surgical treatment. Therapeutic Algorithms
- 1.8. Common tumors affecting the shoulder girdle
  - 1.8.1. Most common shoulder tumors
  - 1.8.2. Algorithm for an adequate diagnosis
  - 1.8.3. Therapeutic Algorithms
- 1.9. Anesthesia in procedures affecting the Shoulder
  - 1.9.1. Regional Anesthesia
  - 1.9.2. General Anesthesia
  - 1.9.3. Brachial plexus block. Complications
  - 1.9.4. Preoperative and Intraoperative Considerations
  - 1.9.5. Postoperative Anesthesia Care
- 1.10. Treatment of pain in pathologies affecting the shoulder: Preoperative and postoperative
  - 1.10.1. Techniques
  - 1.10.2. Suprascapular nerve block and intra-articular nerve block
  - 1.10.3. Radiofrequency and stimulation
  - 1.10.4. Botulinum toxin

## Module 2. Scapular Waist Fractures

- 2.1. Fracture: from Proximal Humerus Conservative Treatment
  - 2.1.1. Fracture of from Proximal Humerus
  - 2.1.2. Indications for conservative treatment
  - 2.1.3. Conservative treatment of proximal humerus fractures
- 2.2. Proximal Humerus Fracture: Surgical Treatment. Osteosynthesis
  - 2.2.1. Indications for surgical treatment by Osteosynthesis
  - 2.2.2. Locked Proximal Humerus PCL Plate: indications and surgical technique
  - 2.2.3. Endomedullary nailing: indications and surgical technique
  - 2.2.4. Other osteosynthesis techniques in Proximal Humerus fractures





- 2.3. Fractura. Proximal Humerus: Surgical treatment and arthroplasty
  - 2.3.1. Indications for surgical treatment by arthroplasty
  - 2.3.2. Hemiarthroplasty: indications after incorporation of inverted
  - 2.3.3. Total Reverse Shoulder Arthroplasty: indications and surgical technique
- 2.4. Fracture- avulsion of tuberosities. Conservative and surgical treatment. Surgical Techniques
  - 2.4.1. Diagnosis
  - 2.4.2. Indications for conservative treatment
  - 2.4.3. Indications for surgical treatment and surgical techniques
- 2.5. Proximal humerus fracture-dislocation. Conservative and surgical treatment. Surgical Techniques
  - 2.5.1. Indications for conservative treatment
  - 2.5.2. Indications for surgical treatment and surgical techniques
  - 2.5.3. Neurological lesions secondary to dislocation
- 2.6. Complications and sequelae of proximal humerus fracture
  - 2.6.1. Proximal Humerus Fracture Complications
  - 2.6.2. Therapeutic approach to the complications of proximal humerus fractures
  - 2.6.3. Proximal Humerus Fracture Sequelae
- 2.7. Clavicle Fracture Conservative Treatment
  - 2.7.1. Clavicle Fracture
  - 2.7.2. Conservative treatment of clavicle fractures
  - 2.7.3. Delayed consolidation. Pseudarthrosis. Surgical Management
- 2.8. Clavicle Fracture Surgical treatment and techniques Osteosynthesis
  - 2.8.1. Surgical Management
  - 2.8.2. Osteosynthesis techniques in clavicle fractures
  - 2.8.3. Surgical treatment in Clavicle Pseudarthrosis
- 2.9. Scapula Fracture Conservative Treatment
  - 2.9.1. Scapula Fractures
  - 2.9.2. Indication for Conservative Treatment of Scapula Fractures
  - 2.9.3. Conservative treatment of fractures of the scapula
- 2.10. Scapula Fracture Surgical treatment and techniques Osteosynthesis
  - 2.10.1. Surgical Treatment Indications
  - 2.10.2. Osteosynthesis techniques in fractures of the scapula
  - 2.10.3. Complications of surgical treatment of scapula fractures

### Module 3. Degenerative shoulder

- 3.1. Scientific evidence in shoulder prostheses
  - 3.1.1. Shoulder arthroplasty. Historical Perspective
  - 3.1.2. Shoulder Arthroplasty Archives
  - 3.1.3. Scientific evidence in shoulder prostheses
- 3.2. Primary osteoarthritis. Conservational Treatment
  - 3.2.1. Etiology of primary omarthrosis
  - 3.2.2. Anamnesis and Physical Examination
  - 3.2.3. Classification of primary omarthrosis
  - 3.2.4. Indications for conservative treatment
- 3.3. Primary osteoarthritis: Surgical Treatment. Techniques
  - 3.3.1. Surgical Management
  - 3.3.2. Therapeutic Algorithms Implant indication
  - 3.3.3. Surgical techniques in primary omarthrosis
- 3.4. Rotator Cuff Arthropathy. Conservative and surgical treatment Surgical Techniques
  - 3.4.1. Rotator Cuff Arthropathy
  - 3.4.2. Conservative Treatment
  - 3.4.3. Surgical Management
  - 3.4.4. Surgical Techniques
- 3.5. Omartrosis postraumática: Conservative and surgical treatment Surgical Techniques
  - 3.5.1. Conservative Treatment
  - 3.5.2. Surgical Management
  - 3.5.3. Surgical Techniques
- 3.6. Omarthrosis and avascular necrosis. Conservative and surgical treatment Surgical Techniques
  - 3.6.1. Etiologies of avascular necrosis
  - 3.6.2. Conservative Treatment
  - 3.6.3. Surgical Management
  - 3.6.4. Surgical Techniques





- 3.7. Traumatic Complications in Shoulder Arthroplasty
  - 3.7.1. Periprosthetic fractures in shoulder arthroplasty
  - 3.7.2. Dislocation in shoulder arthroplasty
  - 3.7.3. Neurological injuries in shoulder arthroplasty
- 3.8. Mechanical Complications in Shoulder Arthroplasty
  - 3.8.1. Aseptic loosening in shoulder arthroplasties
  - 3.8.2. Scapular notching in shoulder arthroplasties
  - 3.8.3. Therapeutic Algorithms
- 3.9. Infectious Complications in Shoulder Arthroplasty
  - 3.9.1. Infection in Shoulder Arthroplasty
  - 3.9.2. Medical treatment of shoulder arthroplasty infection
  - 3.9.3. Surgical treatment in shoulder arthroplasty
- 3.10. Shoulder arthrodesis. Indications and surgical techniques
  - 3.10.1. Indications for shoulder arthrodesis
  - 3.10.2. Surgical Technique
  - 3.10.3. Complications of shoulder arthrodesis



*You will implement in your clinical practice the most precise techniques for suprascapular nerve block, radiofrequency and botulinum toxin application"*

05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, 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 Relearning, 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

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

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



According to Dr. Gérvas, 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 power 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 the physician's professional 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 achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into 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.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This 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, a real revolution with respect to the mere study and analysis of cases.

*Professionals will learn through real cases and by resolving 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 Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

*Relearning 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 (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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



This program offers the best educational material, prepared with professionals 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.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Diploma in Fractures and Pathology of the Shoulder Girdle guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This program will allow you to obtain your **Postgraduate Diploma in Fractures and Pathology of the Shoulder Girdle** 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.

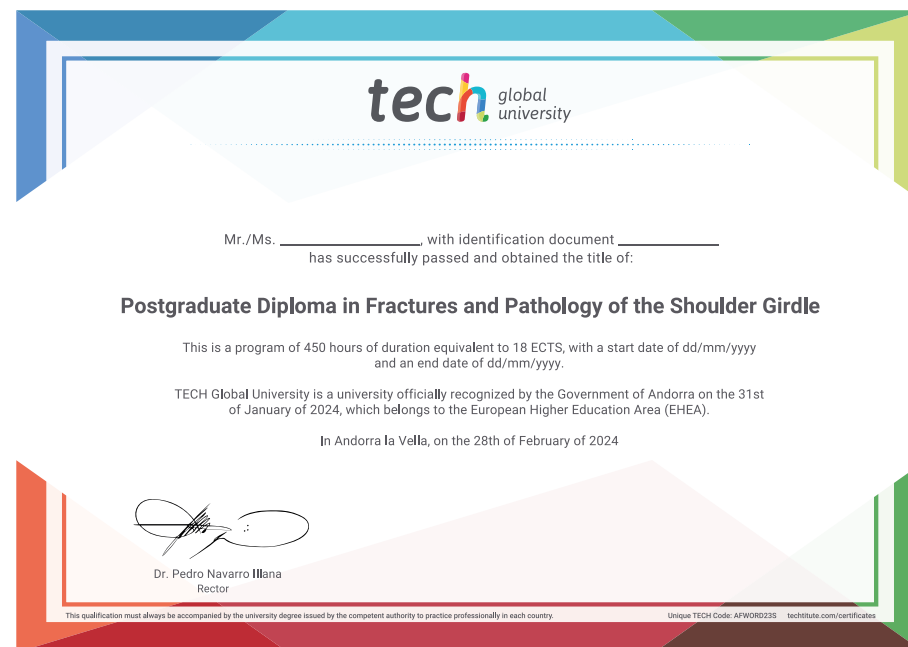
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Fractures and Pathology of the Shoulder Girdle**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



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



**Postgraduate Diploma**  
Fractures and Pathology  
of the Shoulder Girdle

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

# Postgraduate Diploma

## Fractures and Pathology of the Shoulder Girdle

