



## Professional Master's Degree

### Trauma Emergencies

» Modality: online

» Duration: 12 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

We b site: www.techtitute.com/us/medicine/professional-master-degree/master-trauma-emergencies

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### tech 06 | Introduction

The aim of this program is to bring together the experience accumulated over years of caring for this type of pathologies, which have allowed the authors to participate with enthusiasm, involvement and dedication in the development of a program designed to be highly practical, with a background based on the body of knowledge of one of the extensive and most exciting specialties of medicine.

The focus on time management and direct and early care of trauma patients, all within a holistic approach, are factors that make this program a unique learning experience and one that's in line with a context in which specific training determines a precise and safe approach to the patient, and not only to the particular pathology. In short, it insists on the need to provide personalized care, in an extraordinary effort, aimed at harmonizing art with science in the care of acute and urgent pathology in traumatology.

Update your knowledge through the Professional Master's Degree in Trauma Emergencies"

This **Professional Master's Degree in Trauma Emergencies** contains the most complete and up-to-date scientific program on the market. The most important features include:

- More than 75 clinical cases presented by experts in Trauma Emergencies
- 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
- Latest diagnostic-therapeutic developments on assessment, diagnosis, and treatment in trauma emergencies
- Practical exercises where the self-evaluation process can be carried out to improve learning
- Clinical iconography and diagnostic imaging tests
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Special emphasis on evidence-based medicine and research methodologies in trauma emergencies
- All of this will be complemented by 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



This Professional Master's Degree is the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in Trauma Emergencies, you will obtain a qualification from TECH Technological University"

The teaching staff includes professionals from the field of Trauma Emergencies, who contribute their years of experience to this program, as well as renowned specialists from leading scientific societies.

The 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 academic experience programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the physician must try to solve the different professional practice situations that arise throughout the program. For this purpose, the physician will be assisted by an innovative interactive video system created by renowned and experienced experts in the field of trauma emergencies with extensive teaching experience.

Increase your decision-making confidence by updating your knowledge through this Professional Master's Degree.

Make the most of the opportunity to learn about the latest advances in Trauma Emergencies and improve your patient care.







### tech 10 | Objectives

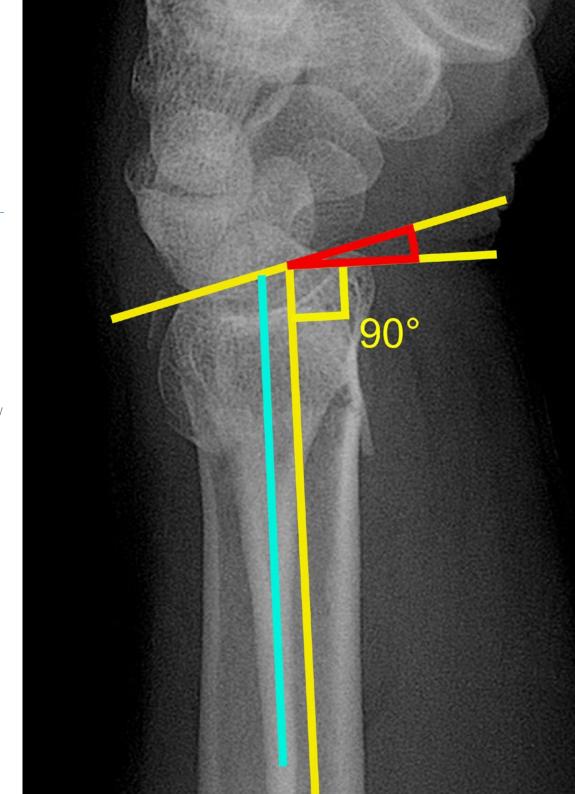


#### **General Objectives**

- Update the knowledge of medical personnel involved in emergency care with special interest in the field of acute trauma pathology
- Promote work strategies based on a comprehensive approach to the patient as a standard model for achieving excellence in care
- Encourage the acquisition of technical skills and abilities, through a modern audiovisual system, with the possibility of development through online simulation workshops and/or specific preparation
- Encourage professional stimulation through continued education and research in your daily practice



Make the most of the opportunity and take the step to get up to date on the latest developments in Trauma Emergencies"





#### Module 1. Holistic Approach to Patients in Trauma Emergencies

- Learn to establish an order, method and system of a holistic approach to patients with acute pathology and trauma
- Learn how to write an emergency discharge report after patient care that is sufficient and succinct, along with recommendations to clarify the common doubts that arise in the patient and that, on many occasions, make them return to the emergency department

#### Module 2. Orthopedic Examination in the Emergency Department

- Learn how to develop the skills required to perform fast, accurate and safe examinations in patients with acute or emergency pathology of traumatic origin through educational videos
- Learn immobilization techniques and treatment of the most frequent fractures and injuries in acute pathology and trauma emergencies through educational videos

#### Module 3. Upper Limb Trauma Emergencies

• Learn how to identify and care for the most common upper limb injuries

#### Module 4. Trauma Emergencies of the Pelvis and Lower Limbs

• Learn how to identify and care for the most common injuries to the pelvis, hip, thigh and leg

#### Module 5. Ankle and Foot Emergencies

• Learn how to identify and care for the most common ankle and foot injuries

#### Module 6. Trauma Emergencies in Children

• Learn how to identify and care for the most frequent acute pediatric traumatic injuries

#### Module 7. Spinal Trauma Emergencies

• Learn how to identify and care for the most common acute traumatic spinal injuries

### Module 8. Musculoskeletal Ultrasound and Radiological Studies in Trauma Emergencies

- Learn the practical applications of ultrasound, both for the rapid diagnostic approach and in support of invasive techniques in trauma emergency
- Develop a systematic approach to reading imaging studies commonly used during emergency trauma care





### tech 14 | Skills



#### **General Skills**

- Possess and understand the knowledge that provides a basis or opportunity to be original in the development or optimization of techniques within trauma emergency care
- Know how to apply the acquired knowledge and problem-solving skills in highly demanding and stressful environments, within multidisciplinary contexts in the care of acute and urgent pathology of traumatic etiology
- Be able to integrate knowledge and face the complexity of making judgments based on relevant, complete, reliable and timely information
- Adequately communicate both with the patient and with other professionals, particularly when requesting interconsultations
- Possess self-directed learning skills





### Specific Skills

- Describe, in detail, the diagnostic and therapeutic processes that are common in emergency trauma care, and their applications in routine clinical practice
- Identify the most frequent and urgent traumatologic injuries in the pediatric age group
- Describe the main characteristics of acute trauma injuries by anatomical region
- Incorporate new knowledge and approaches to fractures in emergency department pediatric inflammatory bowel disease
- Perform a comprehensive approach to the acute and urgent pathology of the polytraumatized patient
- Improve knowledge of the anatomy and pathophysiology of acute trauma injuries
- Value research and the incorporation of technological advances as the only way to progress in the care of acute pathology and trauma emergencies



Learn the latest advances in procedures in the field of trauma emergencies from leading professionals"







#### Management



#### Dr. Elgeadi Saleh, Ghassan

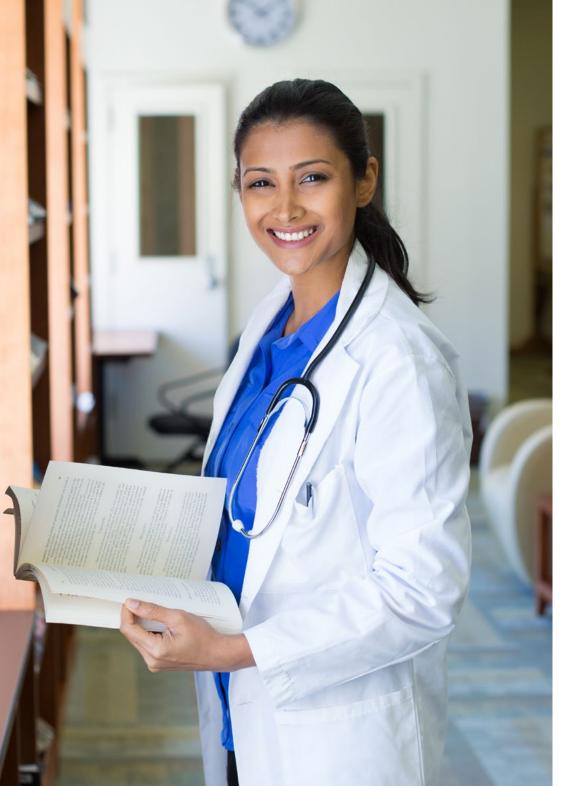
- Trauma physician
- General Manager of Elgeadi Traumatology
- Head of the Traumatology and Emergency Department, Santa Elena Hospital
- Specialized in Advanced Reconstructive Surgery of Upper Limbs
- Specialized in Advanced Reconstructive Surgery of the Lower Limbs
- Specialized in Full Endoscopic Spine Surgery. Fellowship in Full Endoscopic Spine Surgery
- Specialized in Advanced Endoscopic Neck and Lower-Back Surgery



#### Dr. Domenech De Frutos, Santiago

- Emergency physician
- Master's Degree in Ultrasound in Rheumatology and Traumatology
- Master's Degree in Emergency Medicine
- Master's Degree in Acute Pathology and Pediatric Emergencies
- Postgraduate Diploma in Subaquatic and Hyperbaric Medicine
- Postgraduate Diploma in Teaching and Digital Skills in Health Sciences
- Member of the Elgeadi Traumatology team





#### **Professors**

#### Dr. Alarcia Pineda, José Manuel

- Traumatologic emergency physician
- Attending Physician. Emergency Traumatology Service at the Vithas Nuestra Señora de América Hospital
- Vithas Nuestra Señora de América Hospital
- HM Hospital, Móstoles
- General Medical Council- United Kingdom

#### Dr. Alcobe, Javier

- Trauma physician
- Member of the Elgeadi Traumatology team

#### Dr. Contreras, Miguel Angel

Anesthesiologist

#### Dr. Cuevas González, Jorge Luis

- Emergency physician
- Member of the Elgeadi Traumatology team
- Ultramtm (medical simulation) founder
- Santa Elena Clinic
- Member of the Elgeadi Traumatology team

### tech 20 | Course Management

#### Dr. Carbó Laso, Esther

- May 2011- May 2016: Resident Intern, Orthopedic Surgery and Traumatology Department, Hospital
- March 2014 May 2015: Gregorio Marañón General University Hospital, Madrid
- June 2016 Present: On-call duty in the Traumatology Emergency Department of CEMTRO Clinic, Madrid
- January 2019 Present: Assistant Specialist, Department of Orthopedic Surgery and Traumatology, Gregorio Marañón General University Hospital, Madrid

#### Dr. Chana Rodríguez, Francisco

- September 2008 present: legal expert of the Official College of Physicians of Madrid
- September 2005 present: Associate Professor of Surgical Pathology, Faculty of Medicine, Complutense University of Madrid
- December 2004 present: attending physician, Department of Traumatology and Orthopedic Surgery, Gregorio Marañón General University Hospital, Madrid
- October 2004 November 2004: Assistant Physician, Department of Traumatology and Orthopedic Surgery, La Paz General University Hospital, Madrid
- July 2004 September 2004: attending physician in the traumatology department

#### Dr. Fajardo, Mario

- Anesthesiologist
- Chief Executive Officer at UltraDissection Group
- UltraDissection Group

#### Dr. Forriol Campos, Francisco

- Currently Professor of Orthopedic Surgery and Traumatology at the Faculty of Medicine of the San Pablo CEU University, Montepríncipe Campus, Boadilla del Monte, Madrid, 2010
- Specialist in Orthopedic Surgery and Traumatology. Professor at the University of Alcalá, Madrid, 1986-1990
- Professor at the School of Medicine of the University of Navarra, consultant in the Department of Orthopedic Surgery and Trauma of the Clinical University of Navarra, in Pamplona, and director of the Experimental Orthopedics Laboratory, which he developed from its beginnings 1990 - 2005

#### Dr. Gironés, Alberto

- Anesthesiologist
- Sanitas La Moraleja University Hospital

#### Dr. Jiménez, Daniel

- Trauma physician
- Member of the Elgeadi Traumatology team
- Director at Trauma Salud
- TraumaSalud

#### Dr. Méndez Arias, Agustín

- Occupational Physician. More Prevention Prevention Service CEF Center for Financial Studies
- Member of the Elgeadi Traumatology team

#### Dr. Meza González, José

- Family and sports medicine physician
- Member of the Elgeadi Traumatology team

#### Dr. Matas Díaz, Jose Antonio

- Acting assistant doctor of the extinct INSALUD, at the hospital of the Mayoress of San Lorenzo de El Escorial, during the months of March to May 1992.
- Senior specialist, contracted by the Autonomous Community of Madrid, Gregorio Marañón Hospital, Traumatology Service from June 1992 to February 1993
- Permanent Labor Specialist for the Community of Madrid from February 1993 to December 1993 to date
- Member of the infection and antibiotic policy committee from 2008 to present

#### Dr. Núñez Medina, Alberto

- Trauma Physician
- Member of the Elgeadi Traumatology team

#### Dr. Rodríguez, Angel L.

- Trauma physician
- Member of the Elgeadi Traumatology team

#### Dr. Rodríguez, Johanna Miguel

- University Diploma in Nursing
- Member of the Elgeadi Traumatology team

#### Dr. Rodríguez, Tamara

- Trauma Physician
- Member of the Elgeadi Traumatology team

#### Dr. Villanueva, Ghino Patricio

- Occupational physician
- SPRL University Hospital Rey Juan Carlos Hospital. General de Villalba University Hospital Infanta Elena
- Member of the Elgeadi Traumatology team

#### Dr. Vaquero Martin, Javier

- Head of Orthopedic Surgery and Traumatology Department at the Gregorio Marañón General University Hospital, Madrid
- Professor of Orthopedic Surgery and Traumatology at the Complutense University of Madrid

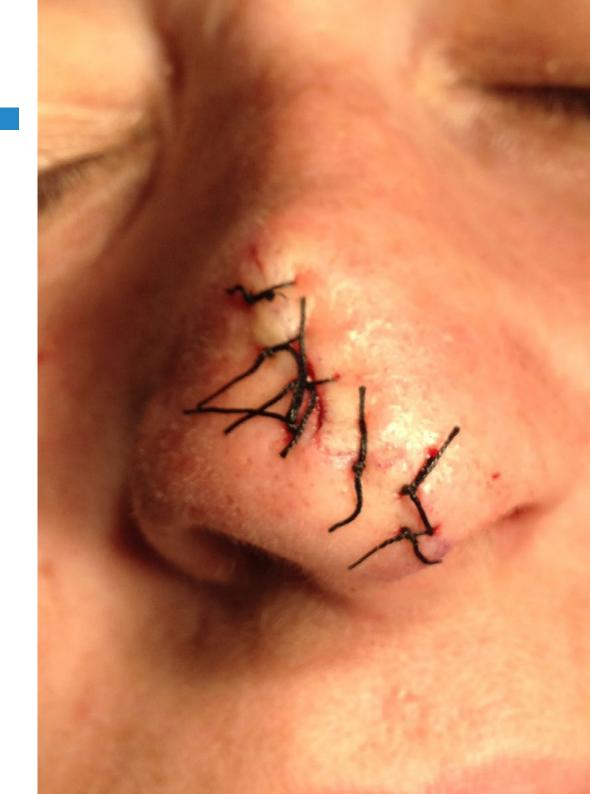




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#### Module 1. Holistic Approach to Patients in Trauma Emergencies

- 1.1. Differences between Multiple Trauma, Multiple Contusions and Multiple Fractures
- 1.2. Initial Assessment
  - 1.2.1. Airway Management
  - 1.2.2. Breathing
  - 1.2.3. Circulation
  - 1.2.4. Neurological Deficit
  - 1.2.5. Exhibition
- 1.3. Second Assessment
  - 1.3.1. Complete Physical Examination
  - 1.3.2. Position for Exploration and Controlled Mobilization
- 1.4. Initial Imaging Tests
  - 1.4.1. X-Rays: Thorax, Pelvis, Spine
  - 1.4.2. Computerized Tomography: Spine, Thorax, Abdomen, Pelvis
- 1.5. Intubation
  - 1.5.1. Airway Management
  - 1.5.2. Cervical Manipulation
  - 1.5.3. Cricothyroidotomy
- 1.6. Ultrasound Scanning Protocol FAST Exam
- 1.7. Damage Control in Trauma Emergencies
- 1.8. Real Trauma Emergencies
  - 1.8.1. Compartment Syndrome
  - 1.8.2. Open Fracture
  - 1.8.3. Septic Arthritis
  - 1.8.4. Traumatic Arthrotomy
  - 1.8.5. Necrotizing Fasciitis
  - 1.8.6. Open Book Fracture with Hemodynamic Repercussion
- 1.9. What to Write, How to Write It and When to Write It
- 1.10. Most Frequent Errors when Preparing the Discharge Report
- 1.11. Desired Recommendations and Instructions



#### Module 2. Orthopedic Examination in the Emergency Department

- 2.1. Systematics
  - 2.1.1. Inspection
  - 2.1.2. Palpitation
  - 2.1.3. Mobilization
  - 2.1.4. MRC Scale
  - 2.1.5. Simple X-Rays
  - 2.1.6. Complementary Tests
- 2.2. Segmental and Peripheral Neurological Examination in Trauma Emergencies
- 2.3. Spinal Column Examination
  - 2.3.1. Inspection
    - 2.3.1.1. Injuries
    - 2.3.1.2. Skin Alterations
    - 2.3.1.3. Muscular Atrophy
    - 2.3.1.4. Bone Deformities
  - 2.3.2. Gait Alteration
    - 2.3.2.1. Unstable Gait with Wide Base (Myelopathy)
    - 2.3.2.2. Foot Drop (Weakness of Tibialis Anterior or Extensor Longus of the First Toe, L4-L5 Root Compression)
    - 2.3.2.3. Gastrocnemius-Soleus Weakness, S1-S2 Root Compression
    - 2.3.2.4. Abductor Banding (Weakness of the Gluteus Medius due to Radicular Compression of L5)
  - 2.3.3. Palpitation
    - 2.3.3.1. Anatomic References
    - 2.3.3.2. Bone Palpation
    - 2.3.3.3. Soft Tissues. Paravertebral Muscles
  - 2.3.4. Mobility Range
    - 2.3.4.1. Cervical
    - 2.3.4.2. Thoracic
    - 2.3.4.3. Lumbar

- 2.3.5. Neurovascular
  - 2.3.5.1. Strength
  - 2.3.5.2. Sensory
  - 2.3.5.3. Reflex
- 2.3.6. Additional Tests
  - 2.3.6.1. Anal Tone
  - 2.3.6.2. Bulbocavernous Reflex
  - 2.3.6.3. Assessment Test of the Three Regions (Cervical, Dorsal, Lumbo-Sacral)
- 2.4. Shoulder Examination
  - 2.4.1. Inspection
  - 2.4.2. Palpitation
  - 2.4.3. Movement Arcs
  - 2.4.4. Neurovascular
  - 2.4.5. Specific Tests
- 2.5. Elbow Exploration
  - 2.5.1. Inspection
  - 2.5.2. Palpitation
  - 2.5.3. Movement Arcs
  - 2.5.4. Neurovascular
  - 2.5.5. Specific Tests
- .6. Wrist Examination
  - 2.6.1. Inspection
  - 2.6.2. Palpitation
  - 2.6.3. Movement Arcs
  - 2.6.4. Neurovascular
  - 2.6.5. Specific Tests
- 2.7. Hand Examination
  - 2.7.1. Inspection
  - 2.7.2. Palpitation
  - 2.7.3. Movement Arcs
  - 2.7.4. Neurovascular
  - 2.7.5. Specific Tests

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- 2.8. Hip Examination
  - 2.8.1. Inspection
  - 2.8.2. Palpitation
  - 2.8.3 Movement Arcs
  - 2.8.4. Neurovascular
  - 2.8.5. Specific Tests
- 2.9. Knee Examination
  - 2.9.1. Inspection
  - 2.9.2. Palpitation
  - 2.9.3. Movement Arcs
  - 2.9.4. Neurovascular
  - 2.9.5. Specific Tests
- 2.10. Ankle and Foot Examination
  - 2.10.1. Inspection
  - 2.10.2. Palpitation
  - 2.10.3. Movement Arcs
  - 2.10.4. Neurovascular
  - 2.10.5. Specific Tests

#### Module 3. Trauma Emergencies of the Upper Limbs

- 3.1. Shoulder and Arm
  - 3.1.1. Glenohumeral Dislocation
    - 3.1.1.1. Injury Biomechanics
    - 3.1.1.2. Physical Examination
    - 3.1.1.3. Diagnostic Imaging
    - 3.1.1.4. Classification
    - 3.1.1.5. Closed Treatment
    - 3.1.1.6. Post-Reduction Management
  - 3.1.2. Fracture of the Proximal Humerus
    - 3.1.2.1. Injury Biomechanics
    - 3.1.2.2. Physical Examination
    - 3.1.2.3. Diagnostic Imaging
    - 3.1.2.4. Classification

- 3.1.2.5. Therapeutic Strategy
- 3.1.2.6. Surgical Treatment
  - 3.1.2.6.1. Non-Urgent with a Follow-Up in 1 Week
- 3.1.2.7. Orthopedic Management
- 3.1.3. Clavicle Fracture
  - 3.1.3.1. Injury Biomechanics
  - 3.1.3.2. Physical Examination
  - 3.1.3.3. Diagnostic Imaging
  - 3.1.3.4. Classification
  - 3.1.3.5. Therapeutic Strategy
    - 3.1.3.5.1. Orthopedic Management
    - 3.1.3.5.2. Surgical Treatment
- 3.1.4. Acromio-Clavicular Injury
  - 3.1.4.1. Injury Biomechanics
  - 3.1.4.2. Physical Examination
  - 3.1.4.3. Diagnostic Imaging
  - 3.1.4.4. Rockwood Classification
  - 3.1.4.5. Therapeutic Strategy
    - 3.1.4.5.1. Orthopedic Management
    - 3.1.4.5.2. Surgical Treatment
- 3.1.5. Sternoclavicular injury
  - 3.1.5.1. Injury Biomechanics
  - 3.1.5.2. Physical Examination
  - 3.1.5.3. Diagnostic Imaging
  - 3.1.5.4. Classification
  - 3.1.5.5. Treatment
- 3.1.6. Septic Arthritis of the Shoulder
  - 3.1.6.1. Risk Factors
  - 3.1.6.2. Physical Examination
  - 3.1.6.3. Diagnostic Imaging
  - 3.1.6.4. Arthrocentesis and Sampling
  - 3.1.6.5. Therapeutic Plan



### Structure and Content | 27 tech

3.	1.7	Scapula Fracture

- 3.1.7.1. Injury Biomechanics
- 3.1.7.2. Physical Examination
- 3.1.7.3. Diagnostic Imaging
- 3.1.7.4. Therapeutic Strategy
  - 3.1.7.4.1. Orthopedic Management
  - 3.1.7.4.2. Surgical Treatment

#### 3.1.8. Humeral Shaft Fracture

- 3.1.8.1. Injury Biomechanics
- 3.1.8.2. Physical Examination
- 3.1.8.3. Diagnostic Imaging
- 3.1.8.4. Classification
- 3.1.8.5. Therapeutic Strategy
  - 3.1.8.5.1. Orthopedic Management
  - 3.1.8.5.2. Surgical Treatment

#### 3.1.9. Distal Humerus Fracture

- 3.1.9.1. Injury Biomechanics
- 3.1.9.2. Physical Examination
- 3.1.9.3. Diagnostic Imaging
- 3.1.9.4. Classification
  - 3.1.9.4.1. Descriptive
  - 3.1.9.4.2. Milch Classification
  - 3.1.9.4.3. Jupiter Classification
- 3.1.9.5. Therapeutic Strategy
  - 3.1.9.5.1. Surgical Treatment
  - 3.1.9.5.2. Orthopedic Management

#### 3.1.10. Olecranon Fracture

- 3.1.10.1. Injury Biomechanics
- 3.1.10.2. Physical Examination
- 3.1.10.3. Diagnostic Imaging
- 3.1.10.4. Classification
- 3.1.10.5. Therapeutic Strategy
  - 3.1.10.5.1. Orthopedic Management
  - 3.1.10.5.2. Surgical Treatment

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3.1.11.	Radial Head Fracture
	3.1.11.1. Injury Biomechanics
	3.1.11.2. Physical Examination
	3.1.11.3. Diagnostic Imaging
	3.1.11.4. Mason Classification
	3.1.11.4.1. Infiltration / Aspiration
	3.1.11.5. Therapeutic Strategy
	3.1.11.5.1. Orthopedic Management
	3.1.11.5.2. Surgical Treatment
3.1.12.	Elbow Dislocation
	3.1.12.1. Injury Biomechanics
	3.1.12.2. Physical Examination
	3.1.12.3. Diagnostic Imaging
	3.1.12.4. Classification
	3.1.12.5. Initial Management
	3.1.12.6. Orthopedic Management
	3.1.12.7. Surgical Management
3.1.13.	Coronoid Tubercle Fracture
	3.1.13.1. Osteology of the Coronoids
	3.1.13.2. Combined Injuries
	3.1.13.3. Injury Biomechanics
	3.1.13.4. Physical Examination
	3.1.13.5. Diagnostic Imaging
	3.1.13.6. Classification
	3.1.13.7. Therapeutic Strategy
	3.1.13.7.1. Orthopedic Management
0111	3.1.13.7.2. Surgical Management
3.1.14.	Capitellum Fracture
	3.1.14.1. Injury Biomechanics
	3.1.14.2. Physical Examination
	3.1.14.3. Diagnostic Imaging

		3.1.14.4. Classification 3.1.14.5. Therapeutic Strategy
		,
		3.1.14.5.1. Orthopedic Management
	0115	3.1.14.5.2. Surgical Management
	3.1.15.	Forearm Fracture (Radius and Ulna Diaphysis)
		3.1.15.1. Injury Biomechanics
		3.1.15.2. Physical Examination
		3.1.15.3. Diagnostic Imaging
		3.1.15.4. Therapeutic Strategy
		3.1.15.4.1. Orthopedic Management
0.0	147	3.1.15.4.2. Surgical Management
3.2.		nd Hand (Except Fingers)
	3.2.1.	
		3.2.1.1. Injury Biomechanics
		3.2.1.2. Physical Examination
		3.2.1.3. Diagnostic Imaging
		3.2.1.4. Classification Systems
		3.2.1.5. Therapeutic Strategy
	3.2.2.	Distal Radial-Ulnar Joint Injury
		3.2.2.1. Injury Biomechanics
		3.2.2.2. Physical Examination
		3.2.2.3. Diagnostic Imaging
		3.2.2.4. Therapeutic Strategy
		3.2.2.4.1. Orthopedic Management
		3.2.2.4.2. Surgical Management
	3.2.3.	Carpal Fracture (without Scaphoid)
		3.2.3.1. Injury Biomechanics
		3.2.3.2. Physical Examination
		3.2.3.3. Diagnostic Imaging
		3.2.3.4. Pyramidal Fracture
		3.2.3.4.1. Cortical Fracture (Avulsion)
		3.2.3.4.2. Fracture of the Body
		3.2.3.4.3. Avulsion Volar Fracture

### Structure and Content | 29 tech

	3.2.3.5.1. Orthopedic Management
	3.2.3.5.2. Surgical Management
3.2.4.	Trapezius Fracture
	3.2.4.1. Classification
	3.2.4.2. Therapeutic Strategy
	3.2.4.2.1. Orthopedic Management
	3.2.4.2.2. Surgical Management
3.2.5.	Large Bone Fracture
	3.2.5.1. Classification
	3.2.5.2. Therapeutic Strategy
	3.2.5.2.1. Orthopedic Management
	3.2.5.2.2. Surgical Management
3.2.6.	Scaphoid Fracture
	3.2.6.1. Injury Biomechanics
	3.2.6.2. Diagnostic Imaging
	3.2.6.2.1. X-Ray
	3.2.6.2.2. CAT Scan
	3.2.6.2.3. Limitations
	3.2.6.3. Classification Systems
	3.2.6.4. Therapeutic Strategy
	3.2.6.4.1. Orthopedic Management
	3.2.6.4.2. Surgical Management
3.2.7.	Hook of Hamate Fracture
	3.2.7.1. Classification
	3.2.7.2. Therapeutic Strategy
	3.2.7.2.1. Orthopedic Management
	3.2.7.2.2. Surgical Management
3.2.8.	Pisiform Fracture
	3.2.8.1. Classification
	3.2.8.2. Therapeutic Strategy
	3.2.8.2.1. Orthopedic Management
	3.2.8.2.2. Surgical Management
3.2.9.	Fracture of the Semilunar Bone

3.2.3.5. Therapeutic Strategy

	3.2.9.1. Classification
	3.2.9.2. Therapeutic Strategy
	3.2.9.2.1. Orthopedic Management
	3.2.9.2.2. Surgical Management
3.2.10.	Trapezoid Fracture
	3.2.10.1. Classification
	3.2.10.2. Therapeutic Strategy
	3.2.10.2.1. Orthopedic Management
	3.2.10.2.2. Surgical Management
3.2.11.	Scapholunate Instability
	3.2.11.1. Injury Biomechanics
	3.2.11.2. Diagnostic Imaging
	3.2.11.3. Watson States in SLAC
	3.2.11.4. Therapeutic Strategy
	3.2.11.4.1. Orthopedic Management
	3.2.11.4.2. Surgical Management
3.2.12.	Dislocation of the Semilunar Bone
	3.2.12.1. Injury Biomechanics
	3.2.12.2. Diagnostic Imaging
	3.2.12.3. Classification
	3.2.12.4. Therapeutic Strategy
	3.2.12.4.1. Orthopedic Management
	3.2.12.4.2. Surgical Management
3.2.13.	Tendon Injuries
3.2.14.	Finger Fractures and Dislocations
3.2.15.	Finger Amputation
3.2.16.	Foreign Bodies in Wrist and Hand

3.2.17. Hand Infections

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### Module 4. Trauma Emergencies of the Pelvis and Lower Limbs

4.1 Acetahular Fractu		
	Irac	tiirde

- 4.1.1. Injury Biomechanics
- 4.1.2. Diagnostic Imaging
- 4.1.3. Classification
- 4.2. Labral Injuries
  - 4.2.1. Injury Biomechanics
  - 4.2.2. Diagnostic Imaging
  - 4.2.3. Classification
  - 4.2.4. Therapeutic Strategy
    - 4.2.4.1. Orthopedic Management
    - 4.2.4.2. Surgical Management

#### 4.3. Distal Femur Fracture

- 4.3.1. Injury Biomechanics
- 4.3.2. Diagnostic Imaging
- 4.3.3. Classification
- 4.3.4. Therapeutic Strategy
  - 4.3.4.1. Orthopedic Management
  - 4.3.4.2. Surgical Treatment

#### 4.4. Femoral Diaphysis Fracture

- 4.4.1. Injury Biomechanics
- 4.4.2. Diagnostic Imaging
- 4.4.3. Classification
- 4.4.4. Therapeutic Strategy
  - 4.4.4.1. Orthopedic Management
  - 4.4.4.2. Surgical Management

#### 4.5. Hip Dislocation

- 4.5.1. Injury Biomechanics
- 4.5.2. Diagnostic Imaging
- 4.5.3. Classification
- 4.5.4. Therapeutic Strategy
  - 4.5.4.1. Orthopedic Management
  - 4.5.4.2. Surgical Management



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		4.6.4.1. Orthopedic Management
		4.6.4.2. Surgical Management
4.7.	Impend	ing Fractures
	4.7.1.	Injury Biomechanics
	4.7.2.	Diagnostic Imaging
	4.7.3.	Classification
	4.7.4.	Therapeutic Strategy
4.8.	Intertro	chanteric and Subtrochanteric Fractures
	4.8.1.	Injury Biomechanics
	4.8.2.	Diagnostic Imaging
	4.8.3.	Classification
	4.8.4.	Therapeutic Strategy
		4.8.4.1. Orthopedic Management
		4.8.4.2. Surgical Management
4.9.	Femora	l Neck Fracture
	4.9.1.	Injury Biomechanics
	4.9.2.	Diagnostic Imaging
	4.9.3.	Classification
	4.9.4.	Therapeutic Strategy
		4.9.4.1. Orthopedic Management
		4.9.4.2. Surgical Management
4.10.	Knee Di	slocation
	4.10.1.	Injury Biomechanics
		Diagnostic Imaging
	4.10.3.	Classification
	4.10.4.	Therapeutic Strategy
		4.10.4.1. Orthopedic Management
		4.10.4.2. Surgical Management

4.6. Hip Prosthesis Dislocation

4.6.1. Injury Biomechanics4.6.2. Diagnostic Imaging4.6.3. Classification4.6.4. Therapeutic Strategy

l.11.	Menisca	al Injuries
	4.11.1.	Injury Biomechanics
	4.11.2.	Diagnostic Imaging
	4.11.3.	Classification
	4.11.4.	Therapeutic Strategy
		4.11.4.1. Orthopedic Management
		4.11.4.2. Surgical Management
l.12.	Quadric	eps or Patellar Tendon Rupture
	4.12.1.	Injury Biomechanics
	4.12.2.	Diagnostic Imaging
	4.12.3.	Classification
	4.12.4.	Therapeutic Strategy
		4.12.4.1. Orthopedic Management
		4.12.4.2. Surgical Management
l.13.	Patella I	Fractures
	4.13.1.	Injury Biomechanics
	4.13.2.	Diagnostic Imaging
	4.13.3.	Classification
	4.13.4.	Therapeutic Strategy
		4.13.4.1. Orthopedic Management

4.13.4.2. Surgical Management

4.14.4.1. Orthopedic Management 4.14.4.2. Surgical Management

4.14. Patella Dislocation

4.14.1. Injury Biomechanics4.14.2. Diagnostic Imaging4.14.3. Classification4.14.4. Therapeutic Strategy

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4.15. Periprosthetic Hip Fractures 4.15.1. Injury Biomechanics	
4.15.2. Diagnostic Imaging	
4.15.3. Classification	
4.15.4. Therapeutic Strategy	
4.15.4.1. Orthopedic Management	
4.15.4.2. Surgical Management	
4.16. Periprosthetic Knee Fractures	The state of the s
4.16.1. Injury Biomechanics	
4.16.2. Diagnostic Imaging	
4.16.3. Classification	
4.16.4. Therapeutic Strategy	
4.16.4.1. Orthopedic Management	
4.16.4.2. Surgical Management	
4.17. Tibia and Fibula Diaphyseal Fractures	
4.17.1. Injury Biomechanics	
4.17.2. Diagnostic Imaging 4.17.3. Classification	
4.17.3. Classification 4.17.4. Therapeutic Strategy	
4.17.4.1 Orthopedic Management	
4.17.4.2. Surgical Management	
4.18. Pelvic Ring Injury	
4.18.1. Injury Biomechanics	
4.18.2. Diagnostic Imaging	
4.18.3. Classification	
4.18.4. Therapeutic Strategy	
4.18.4.1. Orthopedic Management	
4.18.4.2. Surgical Management	
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#### Module 5. Foot and Ankle Emergencies

- 5.1. Achilles Tendon Rupture
  - 5.1.1. Injury Biomechanics
  - 5.1.2. Diagnostic Imaging
  - 5.1.3. Classification
  - 5.1.4. Therapeutic Strategy
    - 5.1.4.1. Orthopedic Management
    - 5.1.4.2. Surgical Management
- 5.2. Ankle Fracture
  - 5.2.1. Injury Biomechanics
  - 5.2.2. Diagnostic Imaging
  - 5.2.3. Classification
  - 5.2.4. Therapeutic Strategy
    - 5.2.4.1. Orthopedic Management
    - 5.2.4.2. Surgical Management
- 5.3. Calcaneal Fracture
  - 5.3.1. Injury Biomechanics
  - 5.3.2. Diagnostic Imaging
  - 5.3.3. Classification
  - 5.3.4. Therapeutic Strategy
    - 5.3.4.1. Orthopedic Management
    - 5.3.4.2. Surgical Management
- 5.4. Proximal 5th Metatarsal Fracture
  - 5.4.1. Injury Biomechanics
  - 5.4.2. Diagnostic Imaging
  - 5.4.3. Classification
  - 5.4.4. Therapeutic Strategy
    - 5.4.4.1. Orthopedic Management
    - 5.4.4.2. Surgical Management

- 5.5. Lisfranc Injury
  - 5.5.1. Injury Biomechanics
  - 5.5.2. Diagnostic Imaging
  - 5.5.3. Classification
  - 5.5.4. Therapeutic Strategy
    - 5.5.4.1. Orthopedic Management
    - 5.5.4.2. Surgical Management
- 5.6. Metatarsal Fractures
  - 5.6.1. Injury Biomechanics
  - 5.6.2. Diagnostic Imaging
  - 5.6.3. Classification
  - 5.6.4. Therapeutic Strategy
    - 5.6.4.1. Orthopedic Management
    - 5.6.4.2. Surgical Management
- 5.7. Navicular Fracture
  - 5.7.1. Injury Biomechanics
  - 5.7.2. Diagnostic Imaging
  - 5.7.3. Classification
  - 5.7.4. Therapeutic Strategy
    - 5.7.4.1. Orthopedic Management
    - 5.7.4.2. Surgical Management
- 5.8. Tibial Pylon Fracture
  - 5.8.1. Injury Biomechanics
  - 5.8.2. Diagnostic Imaging
  - 5.8.3. Classification
  - 5.8.4. Therapeutic Strategy
    - 5.8.4.1. Orthopedic Management
    - 5.8.4.2. Surgical Management

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5.9.	Talar Ne	eck Fracture
	5.9.1.	Injury Biomechanics
	5.9.2.	Diagnostic Imaging
	5.9.3.	Classification
	5.9.4.	Therapeutic Strategy
		5.9.4.1. Orthopedic Management
		5.9.4.2. Surgical Management
5.10.	Lateral	Process Fracture of the Talus
	5.10.1.	Injury Biomechanics
	5.10.2.	Diagnostic Imaging
	5.10.3.	Classification
	5.10.4.	Therapeutic Strategy
		5.10.4.1. Orthopedic Management
		5.10.4.2. Surgical Management
5.11.	Phalang	geal Fractures of the Foot
	5.11.1.	Injury Biomechanics
	5.11.2.	Diagnostic Imaging
	5.11.3.	Classification
	5.11.4.	Therapeutic Strategy
		5.11.4.1. Orthopedic Management
		5.11.4.2. Surgical Management





#### Module 6. Trauma Emergencies in Children

- 6.1. Pediatric Patient Sedation
  - 6.1.1. Anxiolysis, Analgesia, Sedation
  - 6.1.2. Non-Pharmacological Agents
  - 6.1.3. Local Blocks
  - 6.1.4. Sedation
- 6.2. Immobilization in the Pediatric Patient
  - 6.2.1. Challenges in the Placement of Immobilization Systems
    - 6.2.1.1. Capacity for Understanding and Tolerance
    - 6.2.1.2. Difficulties in Expressing Pain in the Child
    - 6.2.1.3. Ages and Sizes
  - 6.2.2. Recommendations During Immobilization
    - 6.2.2.1. Types of Immobilization Systems
- 6.3. Principles of Immobilization
- 6.4. Signs of Child Abuse. Non-Accidental Traumatic Injury (NAT)
  - 6.4.1. Injury Biomechanics
    - 6.4.1.1. Diagnostic Imaging
    - 6.4.1.2. Classification
  - 6.4.2. Typical or Common NAT Injuries
  - 6.4.3. Orthopedic Management
  - 6.4.4. Surgical Management
- 6.5. Salter-Harris Classification
  - 6.5.1. Injury Biomechanics
  - 6.5.2. Diagnostic Imaging
  - 6.5.3. Classification
  - 6.5.4. Therapeutic Strategy
    - 6.5.4.1. Orthopedic Management
    - 6.5.4.2. Surgical Management



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6.6. Clavicle Fracture

	6.6.1.	Injury Biomechanics		6.10.1.	Injury Biomechanics
	6.6.2.	Diagnostic Imaging		6.10.2.	Diagnostic Imaging
	6.6.3.	Classification		6.10.3.	Classification
	6.6.4.	Therapeutic Strategy		6.10.4.	Therapeutic Strategy
		6.6.4.1. Orthopedic Management			6.10.4.1. Orthopedic Management
		6.6.4.2. Surgical Management			6.10.4.2. Surgical Management
6.7.	Proximal Humerus Fracture 6.			Epicono	dyle Fracture
	6.7.1.	Injury Biomechanics		6.11.1.	Injury Biomechanics
	6.7.2.	Diagnostic Imaging		6.11.2.	Diagnostic Imaging
	6.7.3.	Classification		6.11.3.	Classification
	6.7.4.	Therapeutic Strategy		6.11.4.	Therapeutic Strategy
		6.7.4.1. Orthopedic Management			6.11.4.1. Orthopedic Management
		6.7.4.2. Surgical Management			6.11.4.2. Surgical Management
6.8.	Humera	al Diaphysis Fracture	6.12.	Distal H	lumeral Epiphysiolysis
	6.8.1.	Injury Biomechanics		6.12.1.	Injury Biomechanics
	6.8.2.	Diagnostic Imaging		6.12.2.	Diagnostic Imaging
	6.8.3.	Classification		6.12.3.	Classification
	6.8.4.	Therapeutic Strategy		6.12.4.	Therapeutic Strategy
		6.8.4.1. Orthopedic Management			6.12.4.1. Orthopedic Management
		6.8.4.2. Surgical Management			6.12.4.2. Surgical Management
6.9.	Suprac	ondylar Humerus Fracture	6.13.	Radial H	Head Subluxation (Painful Pronation)
	6.9.1.	Injury Biomechanics		6.13.1.	Injury Biomechanics
	6.9.2.	Diagnostic Imaging		6.13.2.	Diagnostic Imaging
	6.9.3.	Classification		6.13.3.	Classification
	6.9.4.	Therapeutic Strategy		6.13.4.	Therapeutic Strategy
		6.9.4.1. Orthopedic Management			6.13.4.1. Orthopedic Management
		6.9.4.2. Surgical Management			6.13.4.2. Surgical Management

6.10. Humeral Condyle Fracture

	6 14 3	Classification
		Therapeutic Strategy
	0.1 1.1.	6.14.4.1. Orthopedic Management
		·
C 1 F	D 1: 1	6.14.4.2. Surgical Management
6.15.		nd Ulnar Fractures (Forearm)
	6.15.1.	Injury Biomechanics
	6.15.2.	Diagnostic Imaging
	6.15.3.	Classification
	6.15.4.	Therapeutic Strategy
		6.15.4.1. Orthopedic Management
		6.15.4.2. Surgical Management
6.16. Distal Radius Fracture		adius Fracture
	6.16.1.	Injury Biomechanics
	6.16.2.	Diagnostic Imaging
	6.16.3.	Classification
	6.16.4.	Therapeutic Strategy
		6.16.4.1. Orthopedic Management
		6.16.4.2. Surgical Management
6.17. Monteggia Fracture		gia Fracture
	6.17.1.	Injury Biomechanics
	6.17.2.	Diagnostic Imaging
	6.17.3.	Classification
	6.17.4.	Therapeutic Strategy
		6.17.4.1. Orthopedic Management
		6.17.4.2. Surgical Management

6.14. Radial Neck Fracture

6.14.1. Injury Biomechanics6.14.2. Diagnostic Imaging

6.18.	Galeazzi Fracture	
	6.18.1.	Injury Biomechanics
	6.18.2.	Diagnostic Imaging
	6.18.3.	Classification
	6.18.4.	Therapeutic Strategy
		6.18.4.1. Orthopedic Management
		6.18.4.2. Surgical Management
6.19. Pelvic Fractures		ractures
	6.19.1.	Injury Biomechanics
	6.19.2.	Diagnostic Imaging
	6.19.3.	Classification
	6.19.4.	Therapeutic Strategy
		6.19.4.1. Orthopedic Management
		6.19.4.2. Surgical Management
6.20.	Pelvic A	vulsion Fractures
	6.20.1.	Injury Biomechanics
	6.20.2.	Diagnostic Imaging
	6.20.3.	Classification
	6.20.4.	Therapeutic Strategy
		6.20.4.1. Orthopedic Management
		6.20.4.2. Surgical Management
6.21.	Coxalgia: Sepsis vs. Transient Synovitis	
	6.21.1.	Interrogation
	6.21.2.	Physical Examination
	6.21.3.	Diagnostic Imaging
	6.21.4.	Complementary Tests
	6.21.5.	Kocher Criteria

6.21.6. Therapeutic Strategy

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6.22.	Hip Disl	ocation		6.26.3.	Classification
	6.22.1.	Injury Biomechanics		6.26.4.	Therapeutic Strategy
	6.22.2.	Diagnostic Imaging			6.26.4.1. Orthopedic Management
	6.22.3.	Classification			6.26.4.2. Surgical Management
	6.22.4.	Therapeutic Strategy	6.27.	Anterio	r Tibial Tuberosity Fracture
		6.22.4.1. Orthopedic Management		6.27.1.	Injury Biomechanics
		6.22.4.2. Surgical Management		6.27.2.	Diagnostic Imaging
6.23.	Slipped	Femoral Epiphysis		6.27.3.	Classification
	6.23.1.	Interrogation		6.27.4.	Therapeutic Strategy
	6.23.2.	Physical Examination			6.27.4.1. Orthopedic Management
	6.23.3.	Diagnostic Imaging			6.27.4.2. Surgical Management
	6.23.4.	Classifications and Degrees of Severity	6.28.	Tibial T	ubercle Fracture (Gerdy)
	6.23.5.	Therapeutic Strategy		6.28.1.	Injury Biomechanics
		6.23.5.1. Conservative Management		6.28.2.	Diagnostic Imaging
		6.23.5.2. Surgical Indication		6.28.3.	Classification
6.24.	Hip Frac	oture		6.28.4.	Therapeutic Strategy
	6.24.1.	Interrogation			6.28.4.1. Orthopedic Management
	6.24.2.	Physical Examination			6.28.4.2. Surgical Management
	6.24.3.	Diagnostic Imaging	6.29.	Toddler	Fracture
	6.24.4.	Classification		6.29.1.	Injury Biomechanics
	6.24.5.	Therapeutic Strategy		6.29.2.	Diagnostic Imaging
		6.24.5.1. Conservative Management		6.29.3.	Classification
		6.24.5.2. Surgical Indication		6.29.4.	Therapeutic Strategy
6.25.	Femora	I Fracture			6.29.4.1. Orthopedic Management
	6.25.1.	Injury Biomechanics			6.29.4.2. Surgical Management
	6.25.2.	Diagnostic Imaging	6.30.	Ankle F	ractures
	6.25.3.	Classification		6.30.1.	Injury Biomechanics
	6.25.4.	Therapeutic Strategy		6.30.2.	Diagnostic Imaging
		6.25.4.1. Orthopedic Management		6.30.3.	Classification
		6.25.4.2. Surgical Management		6.30.4.	Therapeutic Strategy
6.26.	Epiphys	iolysis of Distal Femur			6.30.4.1. Orthopedic Management
	6.26.1.	Injury Biomechanics			6.30.4.2. Surgical Management
	6.26.2.	Diagnostic Imaging			





- 7.1. Incomplete Spinal Cord Injury
  - 7.1.1. Injury Biomechanics
  - 7.1.2. Physical Examination
  - 7.1.3. Diagnostic Imaging
  - 7.1.4. Classification
    - 7.1.4.1. Clinical symptoms
    - 7.1.4.2. ASIA Scale
  - 7.1.5. Therapeutic Strategy
    - 7.1.5.1. Initial Management
    - 7.1.5.2. Surgical Management
- 7.2. Cauda Equina Syndrome
  - 7.2.1. Interrogation
  - 7.2.2. Physical Examination
  - 7.2.3. Diagnostic Imaging
  - 7.2.4. Treatment
- 7.3. Fracture in Patients with Ankylosing Spondylitis
  - 7.3.1. Injury Biomechanics
  - 7.3.2. Diagnostic Imaging
  - 7.3.3. Classification
  - 7.3.4. Therapeutic Strategy
    - 7.3.4.1. Orthopedic Management
    - 7.3.4.2. Surgical Management
- 7.4. Atlo-Axial Fractures
  - 7.4.1. Injury Biomechanics
  - 7.4.2. Diagnostic Imaging
  - 7.4.3. Classification
  - 7.4.4. Therapeutic Strategy
    - 7.4.4.1. Conservative Management
    - 7.4.4.2. Surgical Management



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7.5. Odontoid Process Fracture

	7.5.1.	Injury Biomechanics			
	7.5.2.	Physical Examination			
	7.5.3.	Diagnostic Imaging			
	7.5.4.	Classification			
	7.5.5.	Therapeutic Strategy			
		7.5.5.1. Conservative Management			
		7.5.5.2. Surgical Management			
7.6.	Subaxial Fractures Between C3-C7				
	7.6.1.	Injury Biomechanics			
	7.6.2.	Physical Examination			
	7.6.3.	Diagnostic Imaging			
	7.6.4.	Classification			
	7.6.5.	Therapeutic Strategy			
		7.6.5.1. Conservative Management			
		7.6.5.2. Surgical Management			
7.7.	Central Medullary Cord Syndrome				
	7.7.1.	Injury Biomechanics			
	7.7.2.	Physical Examination			
	7.7.3.	Diagnostic Imaging			
	7.7.4.	Classification			
	7.7.5.	Therapeutic Strategy			
		7.7.5.1. Conservative Management			
		7.7.5.2. Surgical Management			
7.8.	Thorac	olumbar Fractures			
	7.8.1.	Injury Biomechanics			
	7.8.2.	Physical Examination			
	7.8.3.	Diagnostic Imaging			
	7.8.4.	Classification			
	7.8.5.	Therapeutic Strategy			
		7.8.5.1. Conservative Management			
		7.8.5.2. Surgical Management			



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7.9.	Fracture	es of Spinous Processes and Lateral Laminae			
	7.9.1.	Injury Biomechanics			
	7.9.2.	Physical Examination			
	7.9.3.	Diagnostic Imaging			
	7.9.4.	Classification			
	7.9.5.	Therapeutic Strategy			
		7.9.5.1. Conservative Management			
		7.9.5.2. Surgical Management			
7.10.	Burst F	ractures			
	7.10.1.	Interrogation			
	7.10.2.	Physical Examination			
	7.10.3.	Diagnostic Imaging			
	7.10.4.	Classification			
	7.10.5.	Therapeutic Strategy			
		7.10.5.1. Conservative Management			
		7.10.5.2. Surgical Management			
7.11.	Chance	Fractures			
	7.11.1.	Injury Biomechanics			
	7.11.2.	Physical Examination			
	7.11.3.	Diagnostic Imaging			
	7.11.4.	Classification			
	7.11.5.	Therapeutic Strategy			
		7.11.5.1. Conservative Management			
		7.11.5.2. Surgical Management			
7.12.	Thoraco	Thoracolumbar Fractures/ Dislocations			
	7.12.1.	Injury Biomechanics			
	7.12.2.	Physical Examination			
	7.12.3.	Diagnostic Imaging			
	7.12.4.	Classification			
	7.12.5.	Therapeutic Strategy			
		7.12.5.1. Conservative Management			
		7.12.5.2. Surgical Management			

7.13.	Sacral	Fractures
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- 7.13.1. Injury Biomechanics
- 7.13.2. Physical Examination
- 7.13.3. Diagnostic Imaging
- 7.13.4. Classification
- 7.13.5. Therapeutic Strategy

7.13.5.1. Conservative Management

7.13.5.2. Surgical Management

#### 7.14. Vertebral Osteomyelitis

- 7.14.1. Injury Biomechanics
- 7.14.2. Physical Examination
- 7.14.3. Diagnostic Imaging
- 7.14.4. Classification
- 7.14.5. Therapeutic Strategy

7.14.5.1. Conservative Management

7.14.5.2. Surgical Management

# **Module 8.** Musculoskeletal Ultrasound and Radiological Studies in Trauma Emergencies

- 8.1. General Aspects of Musculoskeletal Ultrasound
- 8.2. Indications of Musculoskeletal Ultrasound
- 8.3. Ultrasound Support for Invasive Techniques
- 8.4. Indications for Simple X-Rays
- 8.5. Interpretation of Bone X-Rays
- 8.6. Radiological Characteristics of Fractures
- 8.7. Higher Resolution Imaging Studies Indicated in the Emergency Department (CT).



### tech 44 | Methodology

#### 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.



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:

- 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.



### Methodology | 47 tech

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.

## tech 48 | Methodology

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**

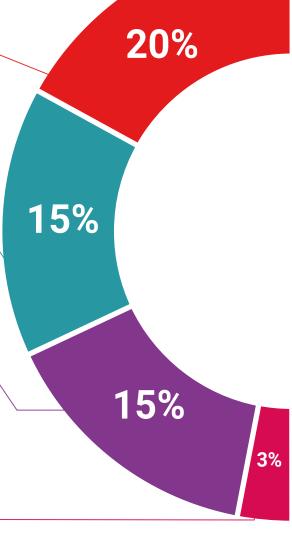
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many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

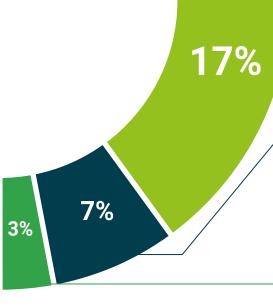
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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.









### tech 52 | Certificate

This **Professional Master's Degree in Trauma Emergencies** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

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

Title: Professional Master's Degree in Trauma Emergencies

Official No of hours: 1,500 h.





<sup>\*</sup>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.

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# Professional Master's Degree Trauma Emergencies

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

