

# Postgraduate Certificate Locoregional Anesthesia in Lower Extremities





## Postgraduate Certificate Locoregional Anesthesia in Lower Extremities

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/locoregional-anesthesia-lower-extremities](http://www.techtute.com/us/medicine/postgraduate-certificate/locoregional-anesthesia-lower-extremities)

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# 01

# Introduction

The application of anesthesia is one of the most important medical processes as a first step for a successful surgical procedure. By achieving numbness in the area to be treated, the medical staff makes its way to relieve and, in the best of cases, cure the patient's ailment. Thanks to Locoregional Anesthesia it is possible to apply various surgical procedures, such as hand and foot surgeries and other assistance methods that can be performed in a less invasive way. In order to update health professionals, TECH has created this program in a 100% online modality that specializes in the Lower Extremities in the Lower Extremities, in order to deliver the most updated information in this area in this field.



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*With the impulse that this Postgraduate Certificate will give you, you will be able to specialize in the application of Locoregional Anesthesia and become an excellent professional"*

Today, many painful conditions that previously lacked effective treatment have medical solutions thanks to Locoregional Anesthesia. This technique makes it possible to address and treat these conditions more quickly than in the past, especially with regard to the lower extremities. Within this framework, TECH has created the Postgraduate Certificate in Locoregional Anesthesia in Lower Extremities, giving professionals the opportunity to update and deepen their knowledge in this important field of medicine.

The lower extremities, which anatomically include the hips, legs, ankles and feet, play a crucial role in the mobility of the human body. Therefore, they require specific care and a specialized medical approach. This degree explores in depth various fundamental aspects of this area of study, such as the anatomy, indications, contraindications, techniques and complications associated with the various nerve blocks. The syllabus includes a detailed review of the anatomy of the lumbar and sacral plexus, exploring the territory of the nerves, the cutaneous and motor distribution, and the techniques of nerve blocks. and motor distribution, and the techniques of posterior and femoral lumbar blockade.

In addition, students will be updated on the latest advances in obturator and femorocutaneous nerve blocks, as well as interfascial blocks for hip surgery and saphenous and intra-articular nerve block for knee surgery. This will provide health care professionals with a solid and up-to-date foundation to address the various medical interventions related to the lower extremities, thus improving the quality of patient care and treatment.

This program has exceptional teachers who provide high quality education, through a 100% online modality, without the need to attend face-to-face classes. In this way, students can take classes comfortably from their personal devices and without previously established schedules.

This **Postgraduate Certificate in Locoregional Anesthesia in Lower Extremities** 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 experts in Locoregional Anesthesia in Lower Extremities
- ♦ 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



*Make your career in medicine a pathway to excellence by getting up to date on the latest postulates with this Postgraduate Certificate in Locoregional Anesthesia in the Lower Extremities"*

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*Immerse yourself in a comprehensive program that covers everything from the anatomy of the lumbar and sacral plexus to nerve block techniques”*

The program’s teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned 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.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. This will be done with the help of an innovative system of interactive videos made by renowned experts.

*Enhance your medical career by updating your knowledge in an area with a high demand for professionals.*

*Prepare yourself to successfully meet the challenges of lower extremity treatment by mastering both the theory and practice of the most innovative medical interventions.*



# 02 Objectives

This program in Locoregional Anesthesia is focused on updating health professionals in the most avant-garde techniques for the application of this method in the lower extremities. The aim of the degree is for the graduate to develop in depth his or her skills as a health professional in this field of medicine. It is also expected that the Postgraduate Certificate will allow them to integrate their basic knowledge with the practice in simulated exercises that will be used during the course of the program, thus understanding the important task of the professional when putting into practice the professional practice, polishing their profile and techniques and increasing their professional skills.







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*Looking to lead in a broadly specialized medical environment, this Postgraduate Certificate in Locoregional Anesthesia is for you"*



## General Objectives

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- ♦ Learn in depth the fundamentals that allow us to perform procedures with regional anesthesia
- ♦ Familiarize with the anatomy, physiology and pharmacology applied to regional anesthesia
- ♦ Specifically study the types of central blocks, as well as their indications, contraindications, technical aspects and complications
- ♦ Specifically study the types of peripheral blocks, as well as their indications, contraindications, technical aspects and complications
- ♦ Review limb, head, neck, thoracic and abdominal blocks, as well as those useful for difficult airway management
- ♦ Review the basic fundamentals of electrostimulation and ultrasound and apply them to the performance of blocks
- ♦ Being familiar with the equipment necessary to perform the blocks
- ♦ Know in depth the current clinical practice guidelines for the preoperative management of patients requiring regional anesthesia
- ♦ List the particularities of outpatient surgery requiring regional anesthesia. Specifically study the types of Peripheral blocks, as well as their indications, contraindications, technical aspects and complications





## Specific Objectives

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- ◆ Identify the different blocks that can be performed on the lower extremity and their main indications and contraindications
- ◆ Learn the different responses to neurostimulation obtained in the different lower extremity blocks
- ◆ Becoming familiar with the ultrasound image obtained in the different blocks of the lower extremity of the lower extremity

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*The path to professional success lies in the professional growth offered by this Postgraduate Certificate in which you will be able to update your skills as an anesthesiologist”*

# 03

## Course Management

Based on TECH's purpose of providing quality education for professionals, this program has the best experts in medicine with teaching experience. With the experience taught by them, the student will be able to address the most updated competencies and skills according to their professional work. Thanks to their excellent teaching, the graduate will also obtain a meticulous and detailed guide on each topic, not only in their professional knowledge, but also in professional skills, develop aptitudes and have an ethical approach when assisting a patient. when assisting a patient in professional practice.



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*With the guidance of the best and most prepared professionals you will have a quality educational experience"*

## Management



### Dr. Burgueño González, María Dolores

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Anesthesia Coordinator of Cantoblanco Hospital
- ♦ Responsible for Surgical Patient Safety at Cantoblanco Hospital
- ♦ Specialist Physician at the Virgen del Mar Hospital
- ♦ MIR in Anesthesiology, Resuscitation and Pain Therapy at the University Hospital La Paz
- ♦ Master PROANES: Official Updating Program in Anesthesiology, Resuscitation and Pain Therapy by the Catholic University of Valencia
- ♦ Postgraduate Diploma in Airway Management by the Catholic University of Valencia

## Professors

### Dr. Martín Martín, Almudena

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Clinical Teaching Collaborator of the University Hospital La Paz
- ♦ MIR in Anesthesiology, Resuscitation and Pain Therapy at the University Hospital La Paz
- ♦ Master of Continuing Education in "Patient Management"

### Dr. Canser Cuenca, Enrique

- ♦ FEA of Anesthesiology and Resuscitation at El Escorial Hospital
- ♦ Specialist in Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Residency in the Department of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ PhD in "Neurosciences: Morphofunctional organization of the nervous system"
- ♦ Degree in Medicine from the Faculty of Salamanca
- ♦ Master in Pathophysiology and Treatment of Pain by the Autonomous University of Barcelona
- ♦ Master's Degree in Palliative Medicine and Supportive Care of the Cancer Patient

**Dr. Sancho De Ávila, Azahara**

- ♦ Free practice anesthesiologist at La Zarzuela Hospital
- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital of La Paz
- ♦ Free practice anesthesiologist at the University Hospital of La Luz
- ♦ Free practice anesthesiologist at Nuestra Señora del Rosario Hospital
- ♦ Doctor in Medicine and Surgery from the University of La Laguna
- ♦ Specialist in Anesthesiology, Resuscitation and Pain Therapy by MIR examination at the University Hospital Nuestra Señora de la Candelaria

**Dr. Salgado Aranda, Patricia**

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Teaching and research experience
- ♦ Clinical Teaching Collaborator of the University Hospital La Paz
- ♦ PhD from the Autonomous University of Madrid
- ♦ Degree in Medicine from the University of Alcalá, Spain
- ♦ Master's Degree in Infectious Diseases in Intensive Care
- ♦ Member of the Illustrious Official College of Physicians of Madrid

**Dr. Rodríguez Roca, María Cristina**

- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital of La Paz
- ♦ Teaching and research experience in several university centers
- ♦ PhD from the Autonomous University of Madrid
- ♦ Degree in Medicine and Surgery from the University of Large
- ♦ European Postgraduate Certificate in Anesthesia and Critical Care (EDAIC)
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)
- ♦ Member of the working group of Chronic Pain of the Spanish Society of Anesthesiology and Resuscitation

**Dr. Zurita Copoví, Sergio**

- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Specialist Physician at the Virgen del Mar Hospital
- ♦ Resident Tutor at the University Hospital La Paz
- ♦ Clinical teaching collaborator at the Autonomous University of Madrid
- ♦ Master's Degree in Clinical Management, Medical and Health Care Management
- ♦ Master in Patient Management
- ♦ European Postgraduate Certificate in Anesthesia and Critical Care
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)

**Dr. Vallejo Sanz, Irene**

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Collaborator in Clinical Simulation workshops
- ♦ MIR in Anesthesiology, Resuscitation and Pain Therapy
- ♦ European Diploma of Anaesthesiology and Intensive Care, EDAIC part I
- ♦ Member of the Illustrious Official College of Physicians of Madrid
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)

# 04

## Structure and Content

The structure of this Postgraduate Certificate brings with it the content of the syllabus that will be seen as a guide so that both the graduate and the teacher can be aware of the deepening that the lawyer will obtain in the course of the program. Thus, the graduate will be aware from the very beginning of the path to be followed in the preparation of his or her professional updating. The program has an exhaustive deepening in everything related to Lower Extremities with respect to Locoregional Anesthesia. This with the purpose of continuing with the quality education that TECH offers.







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*This curriculum is designed to update you in an area of great importance in the medical sector, allowing you to achieve a successful career path"*

## Module 1. Lower Limbs

- 1.1. Lumbar Square Tightness
  - 1.1.1. Anatomy
  - 1.1.2. Nerve territory and exploration
  - 1.1.3. Cutaneous and motor distribution of the lumbar plexus nerves
- 1.2. Sacro Square Tightness
  - 1.2.1. Anatomy
  - 1.2.2. Nerve territory and exploration
  - 1.2.3. Cutaneous and motor distribution of the nerves of the sacral plexus
- 1.3. Posterior lumbar blockade
  - 1.3.1. Anatomy
  - 1.3.2. Indications
  - 1.3.3. Contraindications
  - 1.3.4. Material
  - 1.3.5. Anatomical references, posture and puncture site
  - 1.3.6. Response to neurostimulation
  - 1.3.7. Ultrasound block
  - 1.3.8. Complications
- 1.4. Femoral block
  - 1.4.1. Anatomy
  - 1.4.2. Indications
  - 1.4.3. Contraindications
  - 1.4.4. Anatomical references, posture and puncture site
  - 1.4.5. Material
  - 1.4.6. Response to neurostimulation
  - 1.4.7. Ultrasound block
  - 1.4.8. Complications



- 1.5. Blocks of the obturator nerve and femorocutaneous nerve
  - 1.5.1. Obturator Nerve Block
    - 1.5.1.1. Anatomy
    - 1.5.1.2. Indications
    - 1.5.1.3. Contraindications
    - 1.5.1.4. Anatomical references, posture and puncture site
    - 1.5.1.5. Material
    - 1.5.1.6. Response to neurostimulation
    - 1.5.1.7. Ultrasound block
    - 1.5.1.8. Complications
  - 1.5.2. Lateral femorocutaneous or lateral femoral cutaneous nerve blockade
    - 1.5.2.1. Anatomy
    - 1.5.2.2. Indications
    - 1.5.2.3. Contraindications
    - 1.5.2.4. Anatomical references, posture and puncture site
    - 1.5.2.5. Material
    - 1.5.2.6. Response to neurostimulation
    - 1.5.2.7. Ultrasound block
    - 1.5.2.8. Complications
- 1.6. Interfascial blocks for hip surgery
  - 1.6.1. Introduction
  - 1.6.2. PENG or pericapsular nerve group blockade
  - 1.6.3. Iliac fascia block
    - 1.6.3.1. Suprainguinal
    - 1.6.3.2. Infrainguinal
  - 1.6.4. Benefits of peripheral nerve blocks of the hip
- 1.7. Saphenous nerve block and intra-articular block for knee surgery
  - 1.7.1. Introduction
  - 1.7.2. Saphenous nerve block
    - 1.7.2.1. Blockage of the saphenous nerve in the adductor canal
    - 1.7.2.2. Other blockage sites
  - 1.7.3. Intra-articular knee block
- 1.8. Sciatic block
  - 1.8.1. Sciatic Blockage Gluteal Level
    - 1.8.1.1. Anatomy
    - 1.8.1.2. Indications
    - 1.8.1.3. Contraindications
    - 1.8.1.4. Anatomical references, posture and puncture site
    - 1.8.1.5. Material
    - 1.8.1.6. Response to neurostimulation
    - 1.8.1.7. Ultrasound block
    - 1.8.1.8. Complications
  - 1.8.2. Sciatic block at subgluteal level
    - 1.8.2.1. Anatomy
    - 1.8.2.2. Indications
    - 1.8.2.3. Contraindications
    - 1.8.2.4. Anatomical references, posture and puncture site
    - 1.8.2.5. Material
    - 1.8.2.6. Response to neurostimulation
    - 1.8.2.7. Ultrasound block
    - 1.8.2.8. Complications
- 1.9. Sciatic nerve block at popliteal level
  - 1.9.1. Anatomy
  - 1.9.2. Indications
  - 1.9.3. Contraindications
  - 1.9.4. Anatomical references, posture and puncture site
  - 1.9.5. Material
  - 1.9.6. Response to neurostimulation
  - 1.9.7. Ultrasound block
  - 1.9.8. Complications
- 1.10. Sciatic nerve terminal nerve blocks
  - 1.10.1. Posterior Tibial Nerves
  - 1.10.2. Sural nerve
  - 1.10.3. Common peroneal nerve
  - 1.10.4. Deep peroneal nerve
  - 1.10.5. Superficial peroneal nerve

# 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 Certificate in Locoregional Anesthesia in Lower Extremities 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 Certificate in Locoregional Anesthesia in Lower Extremities** 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 Certificate in Locoregional Anesthesia in Lower Extremities**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



**Postgraduate Certificate**  
Locoregional Anesthesia  
in Lower Extremities

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

# Postgraduate Certificate Locoregional Anesthesia in Lower Extremities

