

# Internship Program Hyperbaric Medicine



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Internship Program  
Hyperbaric Medicine

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# 01 Introduction

Hyperbaric oxygen therapy (HBOT) has become a highly demanded therapeutic alternative in today's clinical setting. Countless studies have shown that the application of high atmospheric pressure to the body, and the consequent increase in blood flow, can be widely beneficial to alleviate certain deficiencies such as diabetic foot, chronic wounds or sports injuries. However, this is a complex area that requires specialized and up-to-date knowledge in order to master it. Based on this, TECH has considered necessary to launch a Internship Program that allows the physiotherapist to catch up with the latest developments in Hyperbaric Medicine through a stay in an international reference clinic.



*Incorporate to your daily practice  
the most notorious and recent  
advances of Hyperbaric Medicine  
in the field of Physiotherapy"*





In recent years, top athletes have been using Hyperbaric Medicine to treat their injuries and achieve a much more effective recovery. This led to greater visibility of this therapy, which, however, has multiple benefits such as vasoconstriction, fibroblastic stimulation, increased cellular immune activity or decreased oxidative stress, which allow its application in different types of pathologies and patients.

This is how this Internship Program was created, a unique opportunity for the professional to become part, for 120 hours, of a team versed in therapeutic oxygenation through atmospheric pressure chambers. Thanks to this, you will be able to update your knowledge in the application of this technique, working with patients with different pathologies: deafness, ulcers, thermal burns, skin grafts, etc. In addition, you will be updated on the recommended guidelines for each case, with special emphasis on those in which treatment is not considered due to their clinical characteristics.

This is a unique experience, in which the graduate will have access to the most innovative and precise technology, and in which they will be able to actively participate in the management of patients. All this accompanied by a team of experts in Hyperbaric Medicine that will ensure, on the one hand, that they can get the most out of the program and, on the other hand, that all the objectives for which it was designed are met. That way, the physiotherapist will be able to complete the stay and face the work environment with the security and guarantee of knowing in detail the novelties of HBOT.



# 02

## Why Study an Internship Program?

Technological innovation necessarily forces professionals to continuously update their technical knowledge. That is why TECH offers an innovative program, which moves away from the classical theoretical framework to provide the professional with a unique practical experience. In this way, it responds to the real needs of strengthening competencies and skills in Hyperbaric Medicine applied to the field of Physiotherapy. This will allow the specialist to enter a real clinical environment where to put into practice the latest procedures and techniques in this field. During 3 intensive weeks, the student will be integrated into a work team where they will see first-hand the advances in equipment and techniques for the administration of hyperbaric oxygen therapy. An excellent academic opportunity for the professional who is looking for a program focused on providing them with the latest developments in a prestigious center and surrounded by the best specialists.



*TECH brings you closer to a unique practical experience, which responds to the real needs of updating in Hyperbaric Medicine required by physiotherapist professionals"*

### 1. Updating from the Latest Technology Available

The area of Hyperbaric Medicine has been revolutionized in recent years thanks to advances that have allowed its use in patients with infectious, rheumatic, Parkinson's or Alzheimer's diseases. For this reason, and with the aim of bringing the specialist closer to this technology, TECH has created this Internship Program, where you can perform an update on the techniques and multiple benefits of this therapy in patients who require and request innovative treatments.

### 2. Gaining In-depth Knowledge from the Experience of Top Specialists

The specialized team that integrates the prestigious clinical center where the professional will perform the Internship Program is guarantee of an unprecedented knowledge update. For 3 weeks, the graduate will be tutored by an expert who will show them, in a real environment, the techniques and methods used with patients who come to the facility. This will allow them to incorporate the most efficient procedures and approaches in Hyperbaric Medicine into their daily practice.

### 3. Entering First-Class Clinical Environments

For the selection of the clinical centers that are part of the Internship Program, TECH carries out a rigorous procedure, which ultimately results in offering professionals a quality update. This way, the graduate will be able to see, first hand, the latest technology used in cutting-edge health environments that seek innovation while caring for the health of patients through Hyperbaric Medicine.



#### 4. Putting the acquired knowledge into daily practice from the very first moment

In this program, TECH seeks, from the beginning of the stay, that the professional enters into the practical techniques, which will lead to enhance their skills and abilities in the management of patients requiring Hyperbaric Medicine. Therefore, in a 100% real clinical scenario, the professional will update knowledge that will be very useful for their useful for their incorporation in their daily practice.

#### 5. Expanding the Boundaries of Knowledge

This program provides a unique experience, which will be a turning point for the professionals who take it. The procedures and methods observed in this practical period will lead you to obtain a rigorous, scientific and exhaustive vision of Hyperbaric Medicine, being able to apply these concepts in your clinic or using them in any other relevant health center.



*You will have full practical immersion at the center of your choice"*

# 03 Objectives

The objective of this Internship Program in Hyperbaric Medicine is to disseminate the usefulness of oxygenation treatment in the different clinical specialties, more specifically in the physiotherapeutic area. With this program, the specialist will be able to get up to date with the latest developments related to this therapeutic strategy: its indications, contraindications, usage models, times, etc. In addition, they will be able to perfect their skills in the definition, evaluation, and determination of the diagnostic and clinical approach in patients with chronic diseases of neuropathic, musculoskeletal, oncological and visceral origin.



## General Objectives

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- Update the latest techniques and methods used for the approach of oncologic patients, sportsmen or with infectious pathologies, which require treatment by means of Hyperbaric Medicine
- Be aware of the most sophisticated and innovative equipment used in Hyperbaric Medicine
- Incorporate the most effective methods, taking into account the common cases that occur in this field







## Specific Objectives

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- Promote the usefulness of hyperbaric oxygenation treatment in different clinical specialties
- Enable health professionals on the foundations, mechanisms of action, indications, contraindications and applications of hyperbaric oxygen
- Study the degree of evidence published and the recommendations and indications of the different scientific societies related to Hyperbaric Medicine
- Recognize the potential applications of hyperbaric oxygen in different clinical cases and the benefits that can be achieved with the treatment, as well as performing the indication and detection of the contraindications
- Achieve the skills to define, evaluate and determine the diagnostic and therapeutic focus in chronic patients in Hyperbaric Medicine with a neuropathic, musculoskeletal, oncological and visceral origin



*An intensive and eminently practical program with which you will be able to reach even your most ambitious objectives within the Hyperbaric Medicine applied to the Physiotherapeutic field"*

# 04 Education Plan

TECH and its team of experts in Hyperbaric Medicine have planned this Internship Program based on a schedule according to the labor demand of the current market. In this way, and during the 3 weeks in which the program is developed, the graduate will access the selected center from Monday to Friday with 8 consecutive hours of work next to an assistant specialist. Thanks to this, they will be able to work alongside a professional with a long and extensive career in the sector and treat patients based on the most innovative clinical and therapeutic strategies of oxygenation.

In this completely practical Internship Program, the activities are aimed at developing and perfecting the skills necessary to provide healthcare in conditions that require highly qualified professionals, and are oriented towards specific expertise for practicing the activity, in a safe environment for the patient and with highly professional performance.

It is, therefore, a unique opportunity to catch up on the advances that have been made in this field, as well as on the management of tools such as the hyperbaric chamber or the biomedical technology that has demonstrated the best results to date. All this in the innovative hospital of the future, where you will be able to implement in your practice the techniques and guidelines that will allow you to improve your skills and your clinical service in a guaranteed way.

The practical teaching will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other training partners that facilitate teamwork and multidisciplinary integration as transversal competences for the practice of Hyperbaric Medicine in the Physiotherapeutic field (learning to be and learning to relate).

The procedures described below will form the basis of the practical part of the internship, and their implementation is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:



*Receive specialized education in an institution that can offer you all these possibilities, with an innovative academic program and a human team that will help you develop your full potential”*



Module	Practical Activity
<b>Hyperbaric Oxygenation Treatment (HBOT)</b>	Apply technical and therapeutic safety of new generation hyperbaric chambers
	Collaborate in the performance of mean pressures, micropressure, hyperbaria examinations
	Performing physiological assessment of oxygen and respiration
	Perform volumetric and solometric effect analysis
	Assess hypoxia and types of hypoxia
<b>Physiological Therapeutic Effects of HBOT</b>	Provide support in the analysis of vasoconstriction
	Assess Angiogenesis and Vasculogenesis
	Assess the existence of osteogenesis in the patient
	Assess the Mitochondrial Function, Inflammation and Oxidative Stress
	Provide support in the analysis of oxidative stress and hyperbaric oxygen
<b>Use HBOT in Wound Healing Process and Infectious Pathology</b>	Apply Medium Pressure and Wound Healing
	Practice with patients with necrotizing infections
	Perform analysis of HBOT in Chronic Ulcers and Diabetic Foot
	Conduct burn examination
	Assess Injuries from Radiofrequency Lesions and Hyperbaric Oxygen
<b>Use HBOT in Pain, Rheumatic Diseases and the Medical Clinic</b>	Collaborate in the analysis of HBOT in altitude sickness
	Practice in mechanism of action in analgesia, especially in patients with neuropathic pain and hyperbaric oxygen
	Assess Arthropathies and Collagenopathies
	Perform HBOT in Dysfunctional Neurosensitive Syndromes
	Apply HBOT in Fibromyalgia and hyperbaric oxygen
	Examine hyperbaric oxygen in Diabetes metabolism and severe anemias
<b>Indications and Contraindications of Hyperbaric Medicine</b>	Analyze the absolute and relative contraindications of Hyperbaric Medicine according to the clinical history of the patients
	To assess patients with absolute contraindications such as untreated pneumothorax, proven oxygen toxicity or claustrophobia
	Study the use of Hyperbaric Medicine in patients with relative contraindications such as congenital anomalies of the nose and throat, narcolepsy or acute nephritis



# 05 Where Can I Do the Internship Program?

TECH submits the centers that apply to be part of the practical program to an exhaustive and complex quality analysis, in order to always choose the most prestigious entities that guarantee a highly beneficial stay for the graduates. To this end, they take into account their track record and the opinion of their clients, as well as the state of their facilities and the level of technology they have. Thanks to this, the Physiotherapy professional will have access to the clinic of the future, being able to update on the most innovative and effective clinical strategies of Hyperbaric Medicine applied to this area.



*You will have the opportunity to take this practical stay in a reference clinic in the field of Hyperbaric Medicine at international level"*







The student will be able to do this program at the following centers:



### CornerSalud

Country	City
Spain	Madrid

Address: Av. de la Coruña, 68, 28231 Las Rozas de Madrid, Madrid

Hyperbaric Medicine Clinical Center with oxygen therapy

**Related internship programs:**  
Hyperbaric Medicine



### Sabier Fisiomedic

Country	City
Spain	Madrid

Address: C. María Zambrano, 3, Local 8-9, 28522 Rivas-Vaciamadrid, Madrid

Center specialized in Physiotherapy, Osteopathy, Aesthetic Medicine, Podiatry, Biomechanics, Facial and Body Aesthetics.

**Related internship programs:**  
- Diagnosis in Physiotherapy  
Sports Physiotherapy



# 06 General Conditions

## Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



## General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

**1. TUTOR:** During the Internship Program, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE:** If the students does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** The Internship Program shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

# 07 Certificate

This **Internship Program in Hyperbaric Medicine** contains the most complete and up-to-date program on the professional and academic scene.

After the student has passed the evaluations, they will receive their corresponding TECH Internship Program issued by TECH Technological University via tracked delivery.

The certificate issued by TECH will reflect the grade obtained in the test.

Title: **Internship Program in Hyperbaric Medicine**

Duration: **3 weeks**

Course Modality: **Monday to Friday, 8-hour consecutive shifts**

Total Hours: **120 h. of professional practice**



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