

Physical therapists provide services that help restore function, improve mobility, relieve pain, and prevent or limit permanent physical disabilities of patients suffering from injuries or disease. They restore, maintain, and promote overall fitness and health. Their patients include accident victims and individuals with disabling conditions such as low-back pain, arthritis, heart disease, fractures, head injuries, and cerebral palsy.

Therapists examine patients' medical histories and then test and measure the patients' strength, range of motion, balance and coordination, posture, muscle performance, respiration, and motor function. Next, physical therapists develop plans describing a treatment strategy and its anticipated outcome. Treatment often includes exercise, especially for patients who have been immobilized or who lack flexibility, strength, or endurance. Physical therapists encourage patients to use their muscles to increase their flexibility and range of motion. More advanced exercises focus on improving strength, balance, coordination, and endurance. The goal is to improve how an individual functions at work and at home.

Physical therapists also use electrical stimulation, hot packs or cold compresses, and ultrasound to relieve pain and reduce swelling. They may use traction or deep-tissue massage to relieve pain and improve circulation and flexibility. Therapists also teach patients to use assistive and adaptive devices, such as crutches, prostheses, and wheelchairs. They also may show patients how to do exercises at home to expedite their recovery.

As treatment continues, physical therapists document the patient's progress, conduct periodic examinations, and modify treatments when necessary. Physical therapists often consult and practice with a variety of other professionals, such as physicians, dentists, nurses, educators, social workers, occupational therapists, speech-language pathologists, and audiologists. Some physical therapists treat a wide range of ailments; others specialize in areas such as pediatrics, geriatrics, orthopedics, sports medicine, neurology, and cardiopulmonary physical therapy.

Education and Training

Physical therapists need a master's degree from an accredited physical therapy program and a State license, requiring passing scores on national and State examinations. Only master's degree and doctoral degree programs are accredited, in accordance with the Commission on Accreditation in Physical Therapy Education. In the future, a doctoral degree might be the required entry-level degree. Master's degree programs typically last 2 years, and doctoral degree programs last 3 years.

Physical therapist education programs start with basic science courses such as biology, chemistry, and physics and then introduce specialized courses, including biomechanics, neuroanatomy, human growth and development, manifestations of disease, examination techniques, and therapeutic procedures. Besides getting classroom and laboratory instruction, students receive supervised clinical experience.

Preparation at UC Merced

Among the undergraduate courses that are useful when one applies to a physical therapist education program are anatomy, biology, chemistry, social science, mathematics, and physics. Before granting admission, many programs require volunteer experience in the physical therapy department of a hospital or clinic.

Specific course prerequisites vary somewhat for each school but the following courses will fulfill all that are generally required. It is the students' responsibility to know the specific requirements of the school to which they will be applying.

One Year of Chemistry	CHEM 2 – General Chemistry I and CHEM 10 – General Chemistry II
One Year of Biological Sciences	BIO 1/L – Contemporary Biology and BIO 2/L – Introduction to Molecular Biology
One Year of Physics	PHYS 8 – Principles of Physics I or ICP 1B – Integrated Calculus and Physics: Physics or PHYS 18 – Principles of Physics I for Biology and PHYS 9 – Introductory Physics II or PHYS 19 – Introductory Physics II for Biology
One Semester of Physiology	BIO 161 – Human Physiology
One Semester of Anatomy	BIO 164 – Human Anatomy
One Semester of Statistics	MATH 18 – Statistical Analysis of Scientific Data or MATH 32 – Statistics or PSY 10 – Analysis of Psychological Data
One Semester of Introductory Psychology	PSY 1 – Introduction to Psychology
One Semester of Abnormal Psychology	PSY 142 – Abnormal Psychology

Testing

The majority of schools require students to take the Graduate Record Exam. It is the student's responsibility to be aware of the specific requirements of the school to which they are applying.

Schools in California

[Azusa Pacific University](#)
[California State University, Fresno](#)
[California State University, Long Beach](#)
[California State University, Northridge](#)
[California State University, Sacramento](#)
[Chapman University](#)
[Loma Linda University](#)

[Mount St. Mary's College](#)
[Samuel Merritt University](#)
[UC San Francisco](#)
[University of Southern California](#)
[University of the Pacific](#)
[Western University of Health Sciences](#)

Licensure

All States require physical therapists to pass national and State licensure exams before they can practice. They must also graduate from an accredited physical therapist education program.