

Physiology: A branch of life science

1. What is Physiology?

Physiology is the study of how the human body works. It helps us to understand how the organs and systems coordinate together under normal and abnormal conditions at both cellular and molecular levels.

2. What are the degrees offered in Physiology?

A candidate aspiring to pursue a career in Physiology can opt for any of the following degrees based on their area of interest.

➤ UG Physiology Degrees

- B.Sc. in Physiology
- B.Sc. in Exercise Physiology and Nutrition
- M.B.B.S. with Physiology

➤ PG Physiology Degrees

- M.A in Applied Psychology
- M.Sc. in Physiology
- M.Sc. in Exercise Physiology and Nutrition

➤ PGDM Courses in Physiology

- PG Diploma in Exercise Physiology and Nutrition
- PG Diploma in Psychological Counselling

➤ Diploma Courses in Physiology

- Diploma in Physiology

➤ Doctorate Physiology Courses

- M.D in Physiology
- Ph.D. in Human Physiology
- Ph.D. in Exercise Physiology and Nutrition

- Ph.D. in Physiology

3. Which are the popular colleges in India offering Physiology and allied Courses?

Some of the popular colleges are as follows:

- All India Institute of Medical Sciences (AIIMS), New Delhi
- Christian Medical College (CMS), Vellore
- Banaras Hindu University (BHU), Varanasi
- Kasturba Medical College (KMC), Manipal
- Aligarh Muslim University, Aligarh
- Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER), Pondicherry

4. What are the specialised fields in Physiology?

Physiologists can have their areas of specialisation and can go on to pursue advanced degree in those specialised fields. The major ones are as follows:

- **Clinical Physiology**: They mainly work alongside doctors to diagnose, treat and anticipate health issues
- **Cell Physiology**: They study everything ranging from the structure of ion channels and transporters to the role of cells in human behaviour and disease.
- **Exercise Physiology**: They analyse a patient's medical history and come up with the best possible exercise and fitness regimen to improve their health condition. Other than these fields one can have specialisation in Audiology, Biomedical Science, Cytology, Immunology,

Forensic Science, Epidemiology, Laboratory Technology, Pharmacology, Virology, Clinical Research etc.

5. What are the job opportunities available in Physiology?

Some of the jobs a person can get with a physiology degree are as follows:

- **Medical Technician**: They are responsible for testing hospital or healthcare clinic patients' blood, fluid and tissue samples for viruses, bacteria and signs of disease.
- **Teacher**: A teacher helps students to understand core concepts of the subject and develop critical thinking.
- **Lab Technician**: A lab technician collects data, performs experiments and runs tests under a medical or scientific professional's supervision.
- **Exercise Physiologist**: An exercise physiologist is a healthcare professional who creates customized exercise programs to improve patients' fitness and health.
- **Medical or health services manager**: A medical services manager oversees a clinic or healthcare facility's staff and operations.
- **Research Associate**: A research associate organizes and performs research on a certain topic.
- **Chiropractor**: A chiropractor is a medical professional who uses manual techniques and manipulations to treat patients with pain, discomfort or injury.

- **Physical Therapist**: A physical therapist is a professional who has earned a Doctor of Physical Therapy degree and is licensed to help injured or disabled patients improve their comfort and movement.
- **Scientific or medical writer**: A medical writer creates scientific content such as research papers, regulatory documents, medical and educational documents, journal manuscripts and medical website copy.
- **Physician Assistant**: A physician assistant is a healthcare professional certified and licensed to help doctors examine and treat patients.
- **Social worker**: As social worker, a professional can help people manage and overcome challenges such as injury and disability.

6. Where do physiologists work?

The broad domains where a physiologist can work are as follows:

- Consulting Companies
- Hospitals
- Laboratories
- Government or Armed Forces
- Biotechnological Companies
- Health Centres
- Pharmaceutical companies
- Research Centres
- Medical Sales Companies

7. What is the salary range of a physiologist?

The salary range for physiologists can vary depending on the specialisations and job role they take up. One can start with an initial pay between INR 20,000 and INR 40,000 per month. The future prospects are also quite promising.