



**IQ City Medical College**  
**Diploma Paramedical Courses 2021**  
**Course Details- About the course**

Sl no	Course	Link
1	DMLT-Diploma in Medical Laboratory Technology	<a href="https://assets.examflix.in/SMFWB/course/DMLT.pdf">https://assets.examflix.in/SMFWB/course/DMLT.pdf</a>
2	DRD- Diploma in Radiography	<a href="https://assets.examflix.in/SMFWB/course/DRD.pdf">https://assets.examflix.in/SMFWB/course/DRD.pdf</a>
3	DIALYSIS -Diploma in Dialysis Technique	<a href="https://assets.examflix.in/SMFWB/course/DialTech.pdf">https://assets.examflix.in/SMFWB/course/DialTech.pdf</a>
4	DOTT-Diploma In Operation Theatre Technology	<a href="https://assets.examflix.in/SMFWB/course/DOTT.pdf">https://assets.examflix.in/SMFWB/course/DOTT.pdf</a>
5	D.OPT -Diploma in Optometry with Ophthalmic Technique	<a href="https://assets.examflix.in/SMFWB/course/DOPT.pdf">https://assets.examflix.in/SMFWB/course/DOPT.pdf</a>
6	DPFT-Diploma in Perfusion Technology	<a href="https://assets.examflix.in/SMFWB/course/DPFT.pdf">https://assets.examflix.in/SMFWB/course/DPFT.pdf</a>
7	DCCT- Diploma in Critical Care Technology	<a href="https://assets.examflix.in/SMFWB/course/DCCT.pdf">https://assets.examflix.in/SMFWB/course/DCCT.pdf</a>
8	DCLT- Diploma in Cath-Lab Technician	<a href="https://assets.examflix.in/SMFWB/course/DCLT.pdf">https://assets.examflix.in/SMFWB/course/DCLT.pdf</a>

# Diploma in Medical Laboratory Technology

## DMLT(Tech)



## About Medical Laboratory Technology:

Medical Laboratory Technology a.k.a clinical laboratory science helps diagnose, treat and prevent disease through clinical laboratory tests. It is complementary to medical science. It involves analysis of body matter such as fluid, tissue, and blood. It also covers micro-organism screening, chemical analyses, and cell count. These professionals, **medical lab technicians and technologists**, play an important role in collecting information, sampling, testing, reporting and documenting medical investigations.



## *Medical Technologist work covers areas such as:*

- ★ Blood banking
- ★ Clinical Chemistry (chemical analysis of body fluids)
- ★ Haematology (blood related)
- ★ Immunology (study of immune system)
- ★ Microbiology (study of bacteria and other disease organisms)
- ★ Cytotechnology (study of human tissue)
- ★ Phlebotomy
- ★ Urine analysis
- ★ Coagulation
- ★ Parasitology
- ★ Blood Sample Matching
- ★ Drug Efficacy Tests
- ★ Serology



Technologists may also conduct research supervised by medical researchers, who are responsible for maintaining report accuracy and conducting complex tests. They generally have more training than a medical laboratory technician, who performs routine testing under stipulated conditions. Technicians may help by preparing specimens and operating automated sample analysing machines, setting up testing equipment, keeping the lab clean, maintaining tools and conditions etc.



## *Medical Laboratory Technology Skills and Attributes:*

A Medical Laboratory Technologist should be disciplined and attentive. A Medical Laboratory Technologist should also have the ability to conduct research, finish tasks with speed as well as with accuracy, to handle stress, make analytical judgment, interpreting technical/scientific data, knowledge of laboratory instrumentation, mechanical ability and the ability to use computers.



## *Medical Laboratory Technology Job Prospects:*

**Medical Technologists** are an integral part of the medical profession. These professionals get involved in practical and technical work to aid correct diagnosis and effective functioning of Biochemical Laboratories.

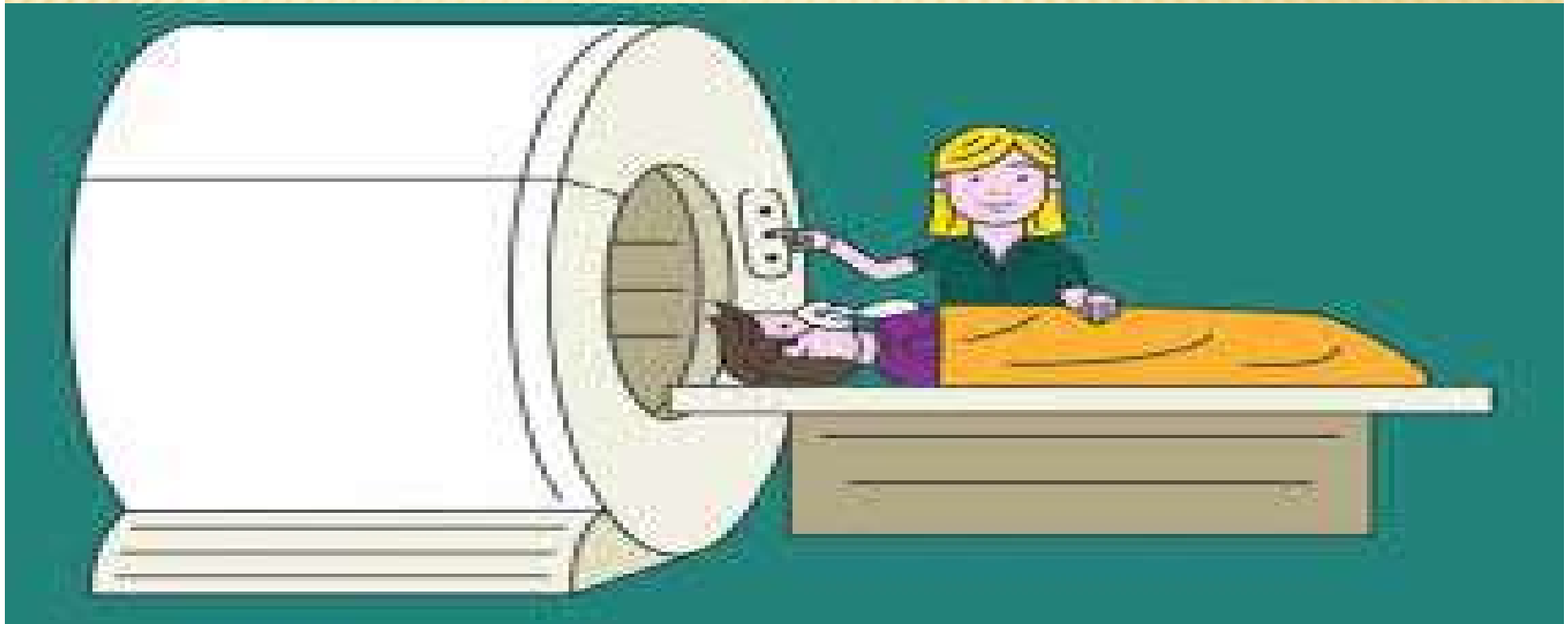
The career prospects in this field depend on the academic and technical skills of the technologist/technician. Initially he/she joins any laboratory as a certified medical laboratory technician. These days with the growth in the private sector there are so many private hospitals, nursing homes, blood banks, pathology laboratories etc. the demand for laboratory technicians is on the up-swing.

With adequate knowledge and experience, **Medical Laboratory Technologists** can advance to supervisory or management positions in laboratories and hospitals. They can also work as Laboratory manager/Consultant/supervisor, health care Administrator, Hospital Outreach coordination, laboratory information system Analyst/Consultant, educational consultant / coordinator etc. Additional opportunities are available in molecular diagnostics, molecular biotechnology companies and in vitro fertilization laboratories as well as in research labs.

DIPLOMA IN RADIOGRAPHY

[ DIAGNOSTIC ]

DRD(Tech)





## About Diploma in Radiography [ Diagnostic ]:

**Radiography** is a paramedical professional course, offered to individuals who will one day perform diagnostic tests in medical treatment with the use of radiation.

In simple terms, **radiography** may be described as the science of taking images of the internal and hidden portions of the human body for the purpose of diagnosing diseases and ailments. This includes the use of ultrasound, X-ray, CT scan, MRI, etc.

This profession calls for considerable technological expertise. **Radiographers** work as a part of the healthcare team in the Diagnostic Imaging Department, Accident & Emergency, Intensive Care Unit and Operating Theatre. Radiographers in short, are trained to take x-rays, MRI, CT scan etc. Sometimes, radiographers are also involved in giving radiotherapy treatment to cancer patients. Radiographers who can also perform the ultrasound test are known as *sonographers*.





# Career Prospects

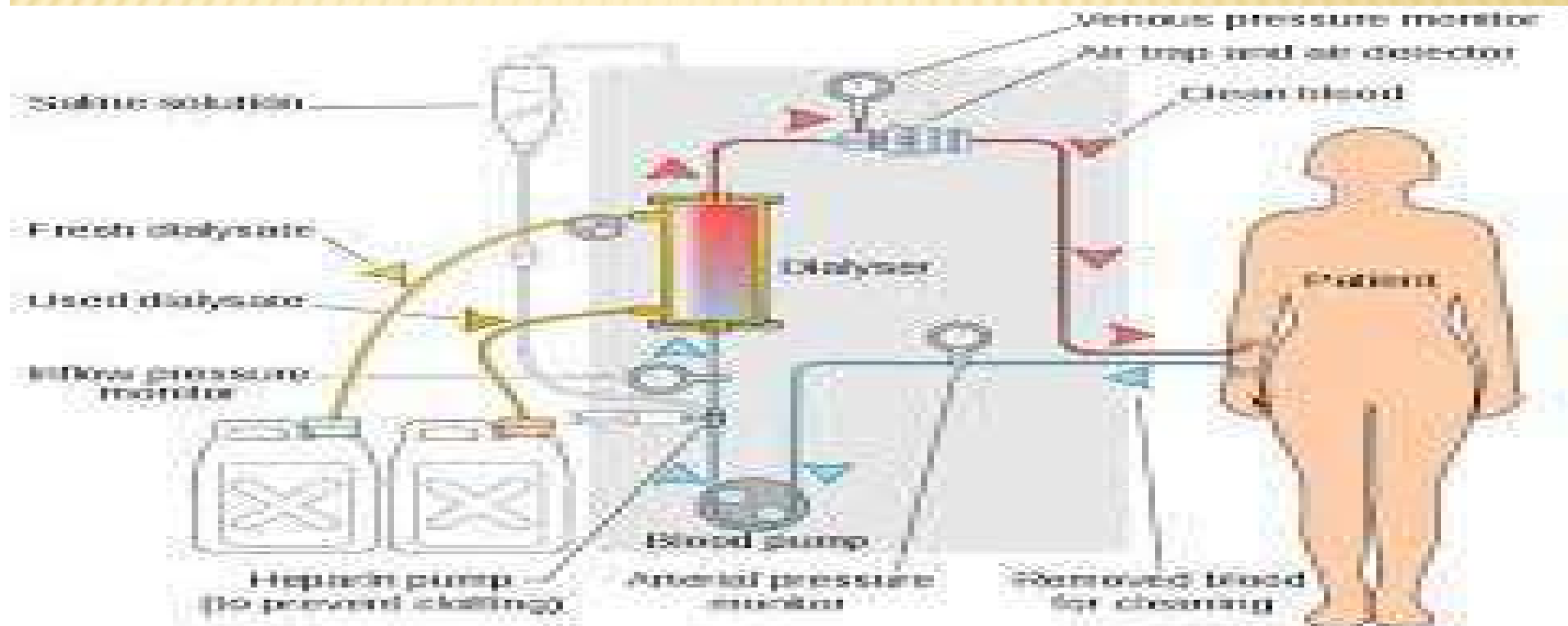
Radiography is one of the most promising career options in the paramedical field. Employment prospects for radiographers are good, both within the country and overseas. With health services increasing leaps and bounds, radiographers are constantly in demand in nursing homes, hospitals, diagnostic centres as well as super-speciality hospitals.

In India, radiographers can work both in private & government hospitals. Jobs are available on part time and full-time work.



# DIPLOMA IN DIALYSIS TECHNIQUE

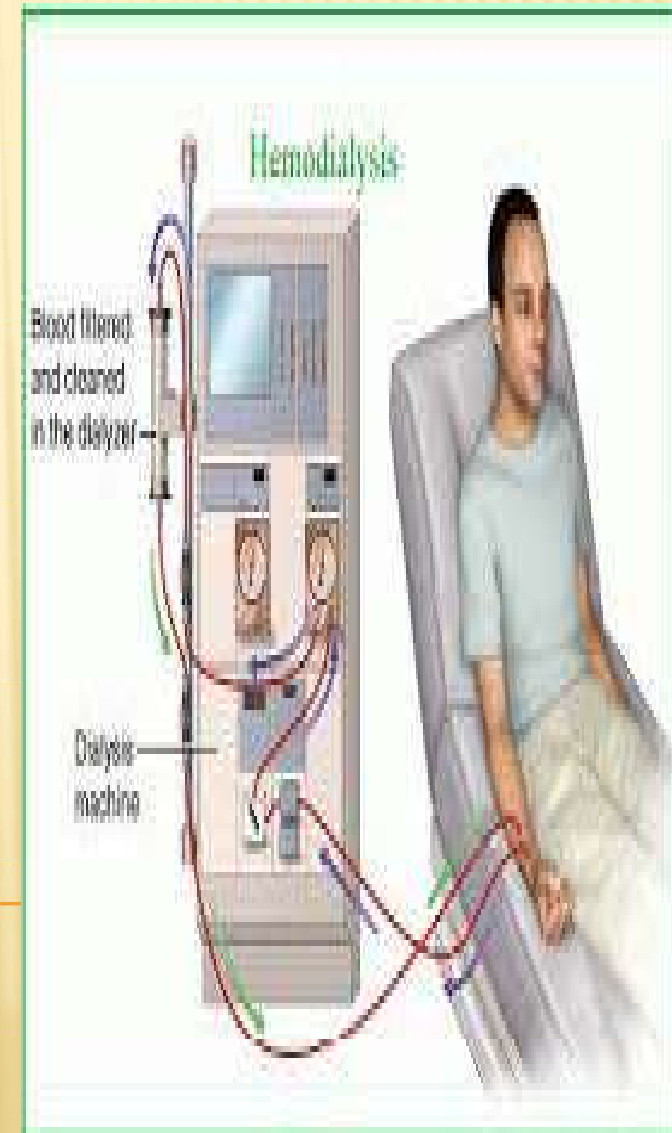
## Dialysis Technician



# About *Diploma in Dialysis Technique*

Dialysis is defined as the process of removing excess water, solutes, and toxins from the blood through an artificial manner that is with use of some medical equipment or machinery. It is generally implied to those persons who are suffering from kidney ailments or their kidneys has stopped natural functioning.

In the past few decades due to changing lifestyle and behavior there has been an increase in kidney-related patients.





# Diploma in Dialysis Techniques: Career Prospects

Diploma in Dialysis Technique passout students have plenty of options to choose from in terms of their career. One can choose to work as Lab assistant, Dialysis in charge, medical assistant, trainer etc. in terms of their career.

To provide you a holistic view of the career prospects of the course we have tabled certain areas and the respective roles attached to the same where a diploma in dialysis technique student can look for in terms of his/her career.



# Job Requirements

A high school diploma is required to enter into formal training programs for critical care technicians. These workers can choose from three different levels of training, which include EMT-Basic, EMT-Intermediate, and Paramedic. A critical care technician needs at least a basic level of training, but the BLS notes that employers may recommend additional training. The training length for these programs varies; however, an examination is a general graduation requirement. Students learn how to perform emergency care for patients suffering from fractures, cardiac arrest, airway obstruction, and bleeding.

Critical care technicians typically need to receive licensure through the state as paramedics or EMTs. The licensure examination is normally done through the National Registry of Emergency Medical Technicians ([www.nremt.org](http://www.nremt.org)). Some states have their own examination and others allow applicants to choose either one. Every few years this state licensure has to be renewed through refresher courses or fulfilling continuing education requirements.



# Diploma In Operation Theatre Technology DOTT





## *About Diploma In Operation Theatre Technology*

Diploma in Operation Theatre Technology is a Diploma level Operations Theatre Technology program. This program prepares aspirants to work in the operation theatre as a competent reliable technologist among the other team members of a healthcare department, under the supervision and guidance of senior doctors and Technical persons in their delivery of patient care. They learn the utilization of numerous diagnostic equipment for example Ventilators, monitors, Defibrillators, C-arm etc. and also patient assessment abilities. Training also concentrates on the knowledge and skills of monitoring infection control policy and procedures in the operation theatre.



Diploma in Operation Theatre Technology concerned with the diagnosis, treatment, and prevention of diseases and ailments through the use of clinical laboratory tests. In this program, the candidates learn to perform tests that aid in the diagnosis and treatment of diseases. This program also equips candidates with the knowledge and skills required to handle advanced lab equipments and perform accurate laboratory tests. With the advances in the imaging technology for different tissues comprising of various organ systems in the human body such as X-rays, sonography CT-scanning, Ultra-sound, PET-scanning, MRI etc. there is an extensive demand for the imaging technologists. Candidate who have completed their Diploma in Operation Theatre Technology looks after all the work and management of the operation theatre which involves managing the patients in and out of operation theatre, looking after all the surgical instruments involving their sterilization, dressing table, arranging operation table, instrument table, anaesthesia table and management of the operation theatre staff. An Operation Theatre Technologist also helps the surgeon amid the surgical operations and looks after the drugs required for surgery, drapes, anaesthetic gases, linen and their sterilization. The aim of the program is to teach and train candidates in operation theatre technology and the management of operation theatre along with handling a wide range of operating instruments including electronic and advanced equipment used in modern operation theatres.

## Diploma in Operation Theatre Technology: Career Prospects

A technologist or technician may find career opportunities in Hospitals, Trauma and Emergency Centers, Private Laboratories, Nursing Homes, Blood Banks and Doctor's Office and Clinics, Government Sectors Establishments, etc.

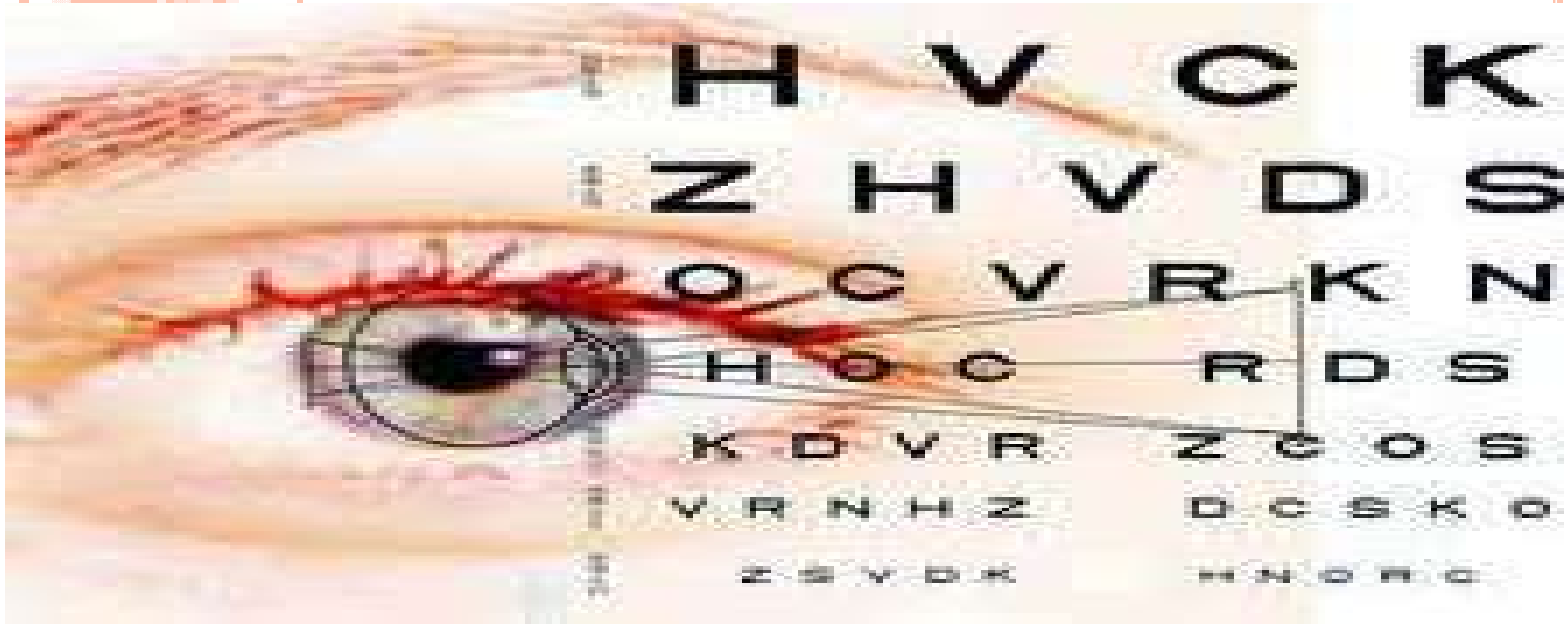
There is an ample of career opportunity for candidates with specialization in imaging technology in all types of Hospitals and Health Care Centers which are going to enhance in time to come due to the advances in technology and attitude of the society for a good and healthy life.





# DIPLOMA IN OPTOMETRY WITH OPHTHALMIC TECHNIQUE

## D.OPT



# Diploma in Optometry: What is it about?

Optometry includes eye and related structures, as well as vision, visual systems & vision information processing in humans. Optometrists are primary health care providers

for the Diagnosis, management and treatment of the Eye Diseases, Refractive disorders.

Diploma in optometry course applicants are acquainted with inspection and analyzing of numerous refractive conditions and oversee Optical guides, for example, Optical Glasses, Contact lenses and other Remedial guides. Students can also specialize in the field of Contact Lens, Orthotics, Low Vision Aids, Sports Vision, Pediatric Optometry, Behavioral Optometry etc. The course is a career



# OVERVIEW



This healthcare program employs usage of modern technologies, related to eyes and related structures. The purpose of the program is to develop multipurpose ophthalmic manpower at paramedical level. The training imparted in the course will enable students to serve as an optician, optometrist, refractionist and ophthalmic assistant in rural, semi-urban and urban settings in both private, government and semi-government sectors.

The objectives of the course are to prepare students dealing with areas of vision such as estimating refraction errors and ability to prescribe glasses; assess ocular motility disorders and recommend adequate treatment including exercises of eyeballs; maintenance of ophthalmic instruments and appliances. The program also prepares students to gain suitable employment as assistance to eye specialist's, optometrists, theatre assistants and refractionist in private, semi-private, government and semi-government hospitals as well as small clinics and dispensaries.

Besides traditional subjects taught, the course is well supplemented by talks from guest's speakers, conferences and hands-on experience on a project. On completion of the course the students can either pursue further education or choose to work and can get employed in different settings as stated above. The course is currently offered at both diploma and degree levels. Depending on the need of the students, they can choose either modes of the program, however requirements varies for both the levels.



## Career Prospects

Diploma in Optometry is a Diploma level Optometric course. It covers topics such as psychology, patient management and optometric retail management. You will also do a research project. These will give you the skills you need to better manage patients, run a retail business or embark on a career based in research. Course enables them to explore opportunities in fields other than health services. Students also get to learn first-hand from industry experts through off-campus classes and internship. The course is career orienting in nature and opens many jobs in medical areas after its successful completion along with further study options.



# Career Prospects

An Optometrist has different vocation openings. They can work on a free premise by setting up their own eye facility, optical shop, lens manufacturing unit and so forth. They can also work with Optician showrooms, Eye doctors, Contact Lens and Ophthalmic lens industry, hospital Eye departments etc. Optometrists can likewise look for work with any MNC's dealing in eye care products as expert service executives or take up teaching jobs as a profession.

They can seek advanced education or can go for additionally explore in the field of Optometry. Optometrists could likewise take up the work of occupational health professionals in the vision care of industrial specialists. One can also join established optical shops and firms fabricating focal lens and ophthalmic instruments. Optometry professionals can also don marketing role within vision care sector. They may market lenses, ophthalmic instruments etc.



# Diploma in Perfusion Technology

## DPFT



# Diploma in Perfusion Technology What is it About?

A Perfusionist is an important team member in the surgical team. They are also known as Clinical Perfusionist or Cardiovascular Perfusionist or Certified Clinical Perfusionist.

They mainly help the surgeon to operate the machine of heart-lung during cardiac surgery and other surgeries which require cardiopulmonary bypass.

To monitor the desired levels of oxygen and carbon dioxide in the patient's body, to control the speed of blood circulation, the patient's temperature, etc. there is demand for trained or qualified perfusionists.

This course mainly focuses on developing a strong knowledge base in cardiothoracic anatomy, physiology and pathophysiology, pharmacology, fetal and neonatal cardiac development and perfusion science among the students.

Under this course, you will study about Human Anatomy, Physiology, Biochemistry, Pathology, Microbiology, Applied Pathology, Clinical perfusion technology etc.





# Career prospects

There is the wide scope of career in health care sector with the increasing growth of multi specialty hospital.

Being a perfusionist, you can work for perfusion equipment suppliers as sales and marketing executives for perfusion products.

A person having experience in this field can work in the management field also like managing departments, oversee budgets, etc.

A perfusionist, with higher education, can look for a career in teaching also.

One can also engage themselves in research work also.

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A perfusionist is required to monitor the levels of oxygen as well as the other gasses which are entering into the blood as to avoid possible coagulation or blood clotting.

A perfusionist is required to monitor the blood circulation and controls its speed.

Another job that a perfusionist has is to take care of the temperature of the patient, which is required to be constant

A perfusionist must take care of the composition of the flowing blood.

A perfusionist must also be careful as to the medications which are to be incorporated along with other blood products as instructed by the doctor in charge

Other jobs include checking on the equipment, managing new orders and supplies and ensuring the proper working of the machines.

A perfusionist is also required to take care of other machines like the ECMO or the extra Corporeal Membrane Oxygenation machine particularly in emergency cases where neither heart or lung or both are not functioning properly.

A government perfusionist can earn from Rs. 8000 to 10,000 based on their background and experience.

A privately appointed perfusionist can earn up to Rs 30,000 depending on the duty.



# DIPLOMA IN CRITICAL CARE TECHNOLOGY DCCT





# *About Diploma in Critical Care Technology*

Critical care technicians are trained professionals who respond quickly and competently to medical emergencies. When entering an accident scene, a critical care technician quickly assesses the problems and begins implementing medical aid.

Problems a critical care technician are trained to respond to includes heart attacks, poisoning, snake bite, falls, gunshot wounds, assaults, and Road traffic accidents(RTA).

The professionals can give BLS and ACLS immediately to save the human being and as well as transport patients to concerned hospital.

These professionals can treat a variety of injuries and physical ailments.

Critical care technicians generally need to complete a formal educational training program and acquire a state license and AHA certificate before working in the field.





# Career Prospects.

Learn about the education and preparation needed to become a critical care technician. Get a quick view of the requirements as well as details about training, job duties and licensure to find out if this is the career for you.

Critical care technicians are first responders at the scene of emergencies. They require training and licensing at one of three levels: EMT-Basic, EMT-Intermediate, or EMT-Paramedic. Each of these levels requires the completion of specific training courses and passing an exam.



# Job Description

According to the U.S. Bureau of Labor Statistics (BLS), emergency medical workers, including critical care technicians, can work over 40 hours a week and sometimes at odd or irregular hours ([www.bls.gov](http://www.bls.gov)). A critical care technician generally works outdoors and indoors regardless of any weather condition. The BLS notes that technicians in this field can experience a great deal of physical labor including extended periods of heavy lifting, bending and kneeling. Critical care technicians can also be exposed to harmful diseases, violence from patients, stress, and injuries.





# Job Requirements

A high school diploma is required to enter into formal training programs for critical care technicians. These workers can choose from three different levels of training, which include EMT-Basic, EMT-Intermediate, and Paramedic. A critical care technician needs at least a basic level of training, but the BLS notes that employers may recommend additional training. The training length for these programs varies; however, an examination is a general graduation requirement. Students learn how to perform emergency care for patients suffering from fractures, cardiac arrest, airway obstruction, and bleeding.

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# DIPLOMA IN CATH-LAB TECHNICIAN

## DCLT





## What Is a Cath Lab Technician?

Cath lab technicians, also known as cardiac catheterization technologists, are cardiovascular technologists who work in facilities that run tests on heart health. They assist with the insertion of catheters into the heart, and are responsible for measuring and administering special fluids. These small tubes and fluids are used for tests to determine how well the heart is working. Tests include x-rays, pressure checks, and pumping strength evaluations. The cath lab technician works under the supervision of a physician, and must monitor patients for life-threatening changes during a procedure. Some cath labs also support noninvasive heart health procedures. Learn about the equipment you'd operate as a cath lab technician, and review the training options for the job.



# What Does a Cath Lab Technician Do?

As a cath lab technician, also known as a cardiology technician, you will use machines that help diagnose various conditions of the heart. Aside from invasive catheterization, you might also use other machines. One machine, the EKG, will allow you to get a reading by attaching electrodes to a patient's body and recording electrical variations of the heart. You can then supply a printout of that reading to a physician for diagnosis. You may also assist with treadmill stress testing. With this procedure, you record the medical history of the patient, attach the EKG, complete a blood pressure assessment and monitor the performance of the heart while the patient walks on a treadmill. This procedure will observe the effect of increased exertion on the patient's heart while you monitor all of the activity. Beyond working with various types of cardiac equipment, you may also schedule appointments, maintain files and care for equipment. It may be helpful in this field if you have a tendency to pay close attention to details, are precise about recording data and an organized person.



# Job Description for Cath Lab Technicians

Cardiovascular technologists spend most of their working time in operating rooms. Although many of the procedures they assist with have become routine, these technologists work in high stress situations due to the fact that should complications arise, the patient can be quickly placed in a life-threatening position. Prior to surgery, the technologist is responsible for ensuring the EKG equipment is in working order, and during the procedure, the technologist will monitor the EKG readouts and keep the doctor apprised of anything considered abnormal. The technologist will also prepare the patient for the procedure by cleaning, shaving, and, in the case of cardiac catheterization for angioplasty, anesthetizing the area of insertion.

In some hospitals, the cardiovascular technologist will assist doctors during open heart surgery, and with the insertion of pacemakers or stents. Again, the technologist will be the one responsible for preparing and monitoring the patient in these instances. Daily non-surgical duties include reading and interpreting test procedures and explaining the procedures to patients. Cardiovascular technologists are exposed to a minor level of radiation in the course of some procedures, but the levels are closely monitored and protected against. During surgical procedures, they spend a great deal of time standing and may be required to help lift and transfer patients.



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