What are the rewards and satisfactions of being a Pathologist?

Pathology provides the scientific foundation for all medical practice.

One of the best aspects of a career in pathology is the wide variety of cases seen, which never cease to be interesting and challenging.

Most pathologists work with a range of medical specialists, including general practitioners and laboratory scientists, and the work frequently involves the integration of laboratory and clinical medicine.

When compared to other specialists, a pathologist's lifestyle is excellent with little on-call work required, leaving time available for family and other interests.

Interested in working in pathology?

The fascinating and rewarding careers in pathology take many years of training.

To be a pathologist, you must first train to become a doctor, followed by at least five years of specialist training in conjunction with passing professional exams.

Medicine is Pathology

For more details, visit the RCPA website at:

www.rcpa.edu.au

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A Career in **Pathology**

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The Royal College of Pathologists of Australasia
1956 - CELEBRATING 50 YEARS - 2006

Pathology is the study of disease, or any condition that limits the quality, length, or enjoyment of life.

From the time a new life is created to the time it ends pathology is involved.

Pathology touches every facet of medicine and, therefore, society.

In fact, "Medicine is Pathology".

As both a pure and applied science, many major advances have been made in medical practice as a result of research carried out by pathologists and scientists – immunisation against infectious diseases, organ transplantation, safe blood transfusion, genetics and forensics.

By pursuing a career in pathology you become involved in medicine at its purest level.

Most people do not realise that pathologists diagnose every detected cancer in the world and that they are involved in the diagnosis and monitoring of all acute and chronic illnesses, such as diabetes, blood disorders and infections. Even less well known is that pathologists are also intimately involved in the management of these often life threatening conditions.

Pathology consists of eight main disciplines:

Anatomical Pathology – the study of organs and tissues to help in determining the causes and effects of particular diseases. An anatomical pathologist's findings are fundamental to medical diagnosis, patient management and research. Sub specialities include:

- histopathology – microscopic examination of tissues, taken either as biopsy samples or resection specimens, for the purpose of diagnosis, prognosis and directing appropriate treatment;
- cytology – the study of individual cells to detect abnormal cells; and

Chemical Pathology or Biochemistry – involves the study and investigation of the biochemical basis of disease processes, with particular emphasis on metabolic diseases, which include diabetes, bone disease, inborn errors of metabolism and lipid disorders. Work covers the common investigations of electrolyte and diagnostic enzyme changes and plasma proteins seen in routine clinical practice, as well as endocrine testing, tumour markers, therapeutic drugs and toxicology.

Forensic Pathology – investigating unexpected deaths, including the analysis of criminal cases and assisting the police in a range of investigations.

Genetics – includes two main branches – cytogenetics (microscopic analysis of chromosomal abnormalities) and molecular genetics (uses DNA technology to analyse mutations in genes). It involves tests on chromosomes and DNA from cells in body fluids and tissues to diagnose genetic diseases.

Haematology – deals with many aspects of diseases which affect the blood, such as anaemia, leukaemia, lymphoma and clotting or bleeding disorders. It also encompasses the subspecialty of transfusion medicine, which includes blood typing and compatibility testing and the management and supply of a large range of blood products.

Immunology – deals with immunological tests for allergic reactions, diagnostic markers for auto-immune disorders such as lupus, rheumatoid arthritis, diabetes and thyroid conditions, and tests to monitor tissue injury due to inflammation.

Microbiology – deals with diseases caused by infectious agents such as bacteria, viruses, fungi and parasites through tests on blood, body fluids and tissue samples. Additional areas involve control of outbreaks of infectious disease and dealing with the problems of infections caused by antibiotic-resistant bacteria.

General Pathology – covers all areas of pathology and is a wonderfully diverse career option.