

# A Concise Note on Pathology

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Pathology is that the study of the causes and effects of disease or injury. The word pathology also refers to the study of disease generally, incorporating a good range of biology research fields and medical practices. However, when utilized in the context of recent medical treatment, the term is usually utilized in a more narrow fashion to ask processes and tests which fall within the contemporary medical field of "general pathology", a neighborhood which incorporates variety of distinct but inter-related medical specialties that diagnose disease, mostly through analysis of tissue, cell, and liquid body substance samples. Idiomatically, "a pathology" can also ask the anticipated or actual progression of particular diseases (as within the statement "the many various sorts of cancer have diverse pathologies"), and therefore the affix pathy is usually wont to indicate a state of disease in cases of both physical ailment (as in cardiomyopathy) and psychological conditions (such as psychopathy). A physician practicing pathology is named a pathologist.

## Etymology

The terms pathology comes from the traditional Greek roots of pathos, meaning "experience" or "suffering" "study of".

## General Pathology

The modern practice of pathology is split into variety of subdisciplines within the discrete but deeply interconnected aims of scientific research and practice. Biomedical research into disease incorporates the work of a huge sort of bioscience specialists, whereas, in most parts of the planet, to be licensed to practice pathology as a medicine, one has got to complete school of medicine and secure a license to practice medicine. Structurally, the study of disease is split into many various fields that study or diagnose markers for disease using methods and technologies particular to specific scales, organs, and tissue types. the knowledge during this section mostly concerns pathology because it regards common practice in these systems, but each of those specialties is additionally the topic of voluminous pathology research as regards the disease pathways of specific pathogens and disorders that affect the tissues of those discrete organs or structures. (See also Gross pathology).

## Dermatopathology

Dermatopathology may be a subspecialty of anatomic pathology that focuses on the skin and therefore the remainder of the system as an organ. it's unique, therein there are two paths a physician can fancy obtain the specialization. All general pathologists and general dermatologists train within the pathology of the skin, therefore the term dermatopathologist

denotes either of those who has reached a certainly level of accreditation and experience; within the US, either a general pathologist or a dermatologist[9] can undergo a 1 to 2 year fellowship within the field of dermatopathology. The completion of this fellowship allows one to require a subspecialty board examination, and becomes a board certified dermatopathologist. Dermatologists are ready to recognize most skin diseases supported their appearances, anatomic distributions, and behavior. Sometimes, however, those criteria don't cause a conclusive diagnosis, and a skin biopsy is taken to be examined under the microscope using usual histological tests. In some cases, additional specialized testing must be performed on biopsies, including immunofluorescence, immunohistochemistry, microscopy, flow cytometry, and molecular-pathologic analysis.

## Forensic pathology

Forensic pathology focuses on determining the explanation for death by post-mortem examination of a corpse or partial remains. An autopsy is usually performed by a coroner or doctor, often during criminal investigations; during this role, coroners and doctors also are commonly asked to verify the identity of a corpse. the wants for becoming a licensed practitioner of forensic pathology varies from country to country (and even within a given nation but typically a minimal requirement may be a medical doctorate with a specialty generally or anatomical pathology with subsequent study in forensic medicine. The methods forensic scientists use to work out death include examination of tissue specimens to spot the presence or absence of natural disease and other microscopic findings, interpretations of toxicology on body tissues and fluids to work out the chemical explanation for overdoses, poisonings or other cases involving toxic agents, and examinations of physical trauma. Forensic medicine may be a major component within the trans-disciplinary field of forensic science.

## Surgical pathology

Surgical pathology is one among the first areas of practice for many anatomical pathologists. Surgical pathology involves the gross and microscopic examination of surgical specimens, also as biopsies submitted by surgeons and non-surgeons like general internists, medical subspecialists, dermatologists, and interventional radiologists. Often an excised tissue sample is that the best and most definitive evidence of disease (or lack thereof) in cases where tissue is surgically faraway from a patient. These determinations are usually accomplished by a mixture of gross (i.e., macroscopic) and histologic (i.e., microscopic) examination of the tissue, and should involve evaluations of molecular properties of the tissue by immunohistochemistry or other laboratory tests.

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