

Introduction to Human Pathology

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1. Introduction

- Pathology is the study of disease, including its causes, mechanisms, and effects on the body.
- It bridges basic science and clinical medicine by explaining how illness develops.

2. Branches of Pathology

- **Anatomical pathology:** examines tissues and organs, including biopsies and autopsies.
- **Clinical pathology:** analyzes blood, fluids, and other laboratory specimens.
- **Molecular pathology:** studies disease at the genetic and molecular level.

3. Core Concepts

- **Etiology:** the cause of a disease, such as infection, genetics, or toxins.
- **Pathogenesis:** the sequence of events from cause to manifestation.
- **Morphology:** the structural changes disease produces in cells and tissues.

4. Disease Classification

- Diseases may be congenital or acquired, acute or chronic.
- Categories include inflammatory, infectious, neoplastic, and degenerative.
- Signs are observable, while symptoms are reported by the patient.

5. Importance in Practice

- Pathology guides diagnosis, prognosis, and treatment choices.
- Laboratory findings confirm or rule out clinical suspicions.
- It underpins evidence-based and personalized medicine.