

COMPUTED TOMOGRAPHY NOTES (SAMPLE)

UC 10013 – Premium Exam Focused Guide

This sample shows the structure and clarity of the full notes. The complete version includes detailed explanations, protocols, exam tips, and a mock exam.

CT PRINCIPLES

Computed Tomography produces cross sectional images by rotating an X-ray tube around the patient while detectors measure transmitted radiation.

Unlike plain radiography, CT removes superimposition, allowing clearer visualisation of anatomy and pathology.

Key Points

- Cross sectional imaging
- No superimposition
- High diagnostic accuracy

Exam Tip

CT removes superimposition, this is commonly tested.

BEAM ATTENUATION

Attenuation is the reduction in X-ray intensity as it passes through matter due to absorption and scatter.

Dense tissues such as bone attenuate more radiation, while air attenuates the least.

Exam Tip

Bone appears white, air appears black on CT.

HOUNSFIELD UNITS

Hounsfield Units measure tissue density.

- Air = -1000

- Water = 0
- Bone = high positive

Exam Tip

Water is always 0 HU.

IMAGE RECONSTRUCTION

Filtered back projection is fast but produces more noise.

Iterative reconstruction reduces noise and improves image quality.

Exam Tip

Iterative reconstruction reduces noise and dose.

PROTOCOL EXAMPLE

CT ABDOMEN PELVIS

Indications

Abdominal pain, infection

Phase

Portal venous

Exam Tip

Portal venous phase is most commonly used.

SAMPLE COMPLETE

The full notes include:

- Complete CT concepts
- Body region protocols
- Image critique guide

- Quick revision summary
- Mock exam with answers