

Tissues

Epithelial

Simple (single layer) or Stratified (multiple layers)

Squamous (flattened) or cuboidal or columnar

- Simple squamous epithelium (alveoli of lungs – allows gas diffusion) (large nuclei)
- Simple cuboidal epithelium (kidney tubules – urine formation)
- Simple columnar epithelium (inner lining of small intestine – nutrient absorption) (nuclei in basal region)
- Pseudostratified columnar epithelium (respiratory – ciliated) (rest on the basement membrane)
- Stratified squamous epithelium (specialized transitional)
 - o Keratinised (hair, skin, nails)
 - o Non Keratinised (oesophagus, mouth & pharynx, vagina and anal canal)
- Stratified cuboidal epithelium
- Stratified columnar epithelium

Surface epithelia

Glandular epithelia

Function = Secretion or excretion

Exocrine = passes secretion into a duct which carries to the body's surface

Endocrine = no ducts and passes secretion directly into blood capillaries and/or lymphatic capillaries

General: Areolar connective tissue (loose)

Adipose connective tissue (loose)

Reticular connective tissue (loose)

Dense regular connective tissue (tendons and aponeuroses)

- Collagenous fibres: densely packed parallel bundles
- Fibroblasts: elongated flattened nuclei of inactive fibroblasts wedged between bundles of collagenous fibres

Dense irregular connective tissue (dermis of skin, fibrous capsules of organs, periosteum, endosteum, perichondrium and deep fascia)

- Elastic fibres: stain black; thinner near the epithelium
- Collagenous fibres: pink stained fibres; densely packed bundles oriented in all directions

Specialised: Bone tissue

Cartilaginous tissue

Blood and haemopoietic tissue

Lymphatic tissue

Intercellular substances

Collagenous fibres:

White appearance

Occur in bundles

Strong, flexible and resistant to stretching

Do not branch

Reticular Fibres:

Thin and branched (net-like supporting framework of organs)

Around small blood vessels, muscle fibres, nerve fibres and adipocytes

Elastic fibres: