

CONNECTIVE TISSUE

FUNCTIONS

- framework for mechanical support, strength
- energy storage, fills space, provides padding, defence
- circulating and interstitial fluids

STRUCTURE CELLS

fibroblasts

adipocytes

macrophages

mast cells

plasma cells

EXTRACELLULAR MATRIX

ground substance

fibres

-collagen

-elastin

tissue fluid

TYPES OF CONNECTIVE TISSUE

"PROPER"

loose

dense

irregular

regular

"SPECIAL" - bone, cartilage, blood (later in course)

TYPES OF COLLAGEN

> 10 types known

TYPE I > 90 % of collagen in the body
-coarse fibres arranged in bundles
-in loose connective tissue, tendons, ligaments, fibrocartilage

TYPE II -fine fibrils
-in hyaline cartilage, elastic cartilage

TYPE III = RETICULAR FIBRES
-forms fine 3-dimensional meshwork
in liver, spleen

TYPE IV -fine, short fibres
-in basement membrane

TYPE V -in walls of blood vessels, reinforce bone

- other collagen types very specialized