

Connective Tissue

Types

Unspecialised

Loose irregular connective tissue

Including subcutaneous tissue, lymph gland tissue, essentially the substance you see can you peel back the skin (filler tissue).

Dense irregular connective tissue

Including joint capsule, dermis, muscle fascia, essentially dense.

Specialised

Dense regular connective tissue

Fibrils/fibres are being organised in a structural hierarchical pattern such as in a ligament or tendon.

Structure

Cells

Extracellular matrix

Common Cells

Tissue Specific Cells

Mast Cells

Tissue Macrophages

Plasma Cells

Leukocytes

Tenoblasts/tenocytes

Chondroblasts/chondocytes

Adipocyte

Fibroblasts/Fibrocytes

Osteoblasts/Osteocytes

Ground substance

Fibres

Progression of Cells

Stem Proliferate

'Blasts' Produce

'Cytes' Maintain

These cells **proliferate** and **differentiate** into **'Blasts'** such as fibroblasts

Embryologic Stem Cells
- Mesenchymal
- Stromal
- Hematopoietic stem cells

These produce continuously until they eventually get trapped in the matrix itself and mature into **'Cytes'**.

In particular *Fibroblasts*, these produce most of the substance of the extracellular matrix and fibres.

Matured **'Blast'** cells which rarely divide. They can revert back to the **'Blast'** stage in cases of trauma or inflammation.

include *Osteocytes, Chondrocytes and Adipocytes*

Connective Tissue