

## **Dense Connective Tissue:**

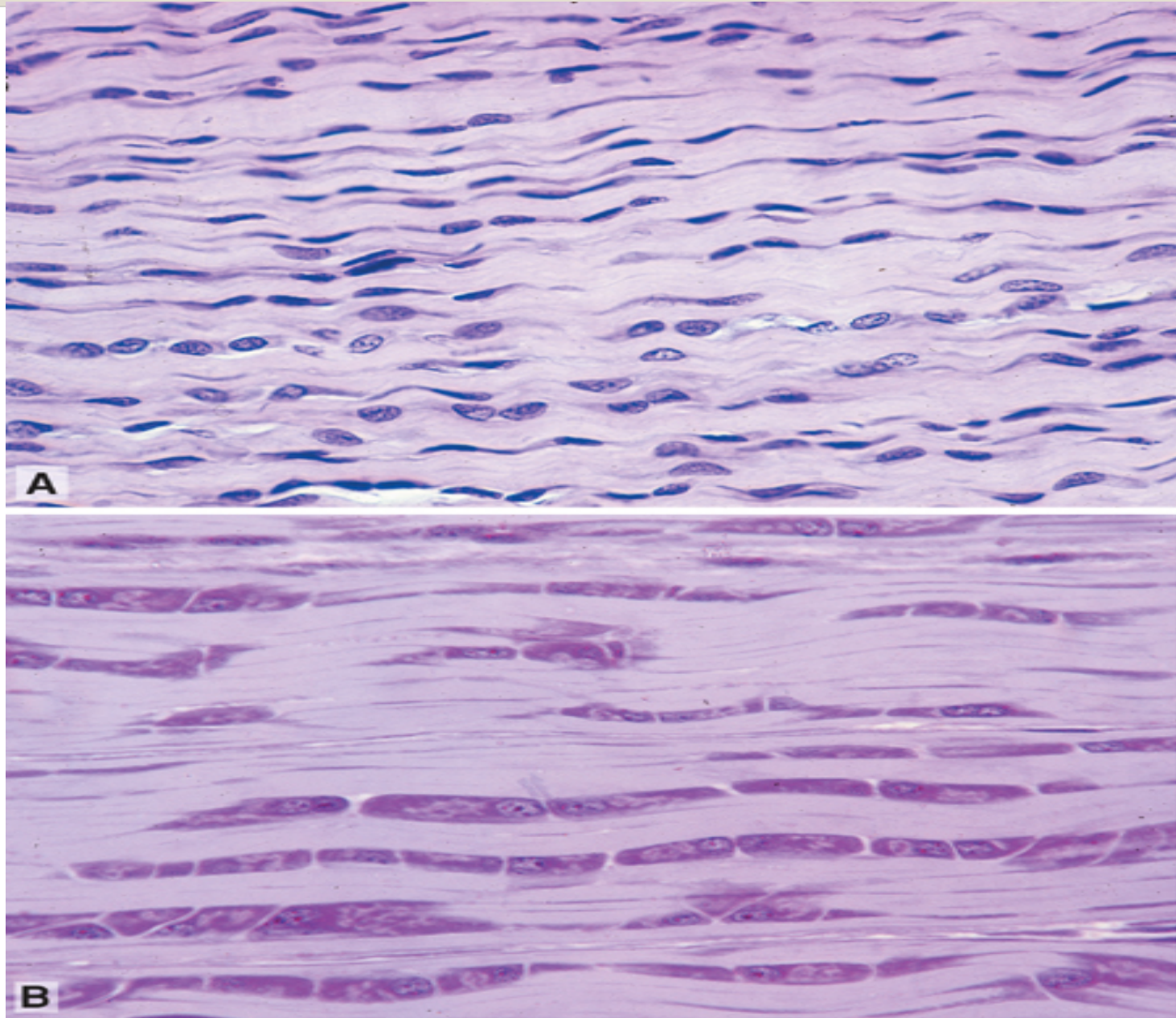
### **A. Dense regular connective tissue**

**Tendons and ligaments**

### **B. Dense irregular connective tissue**

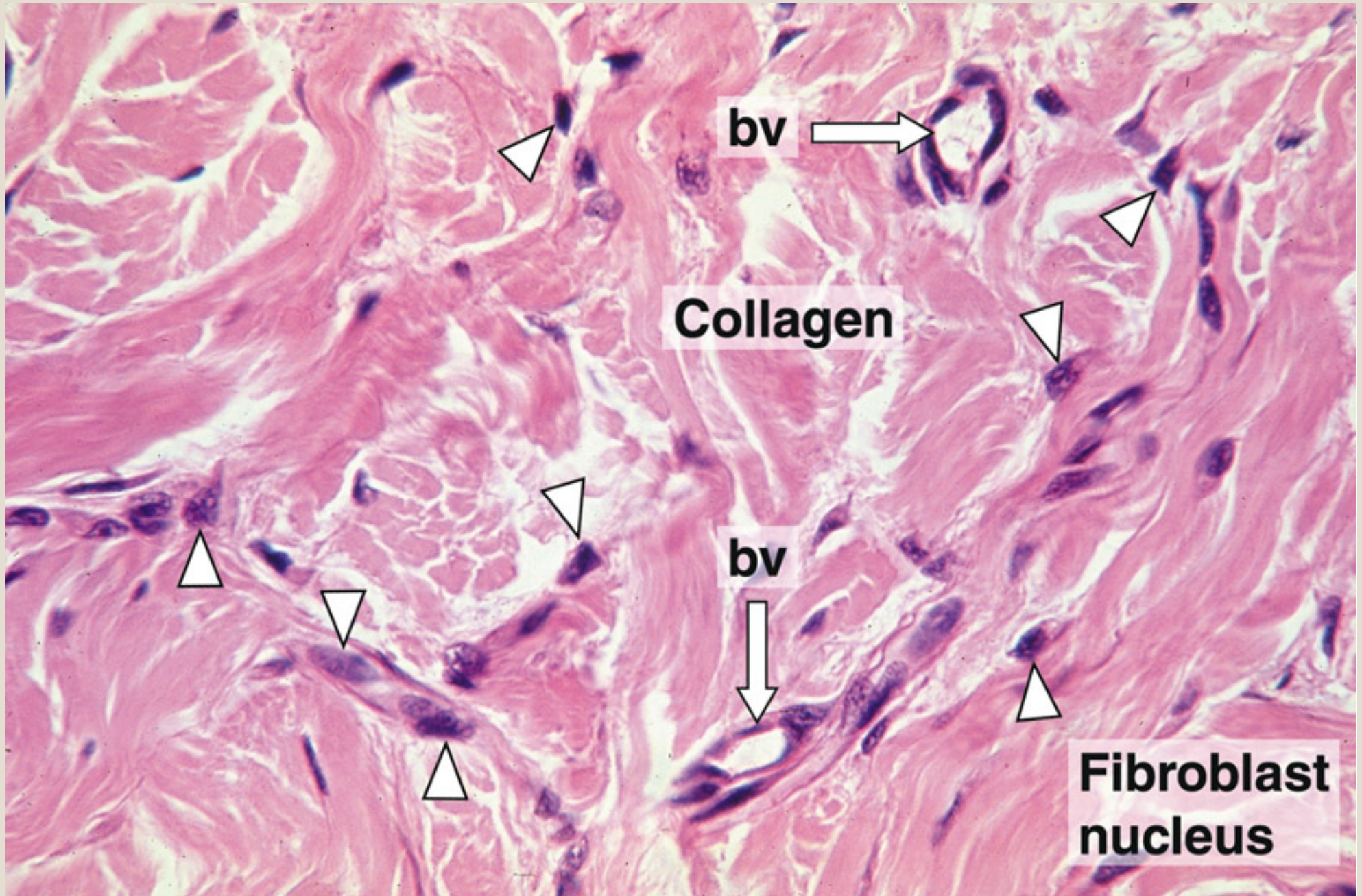
**Dermis of skin, submucosa of  
digestive tract**

# **Dense Connective Tissue**



Dense regular Connective Tissue





Dense Irregular Connective Tissue

**Adipose Tissue** is a loose fibrous connective tissue that is packed with many fat cells (called "**adipocytes**").

**Locations of adipose tissue include:**

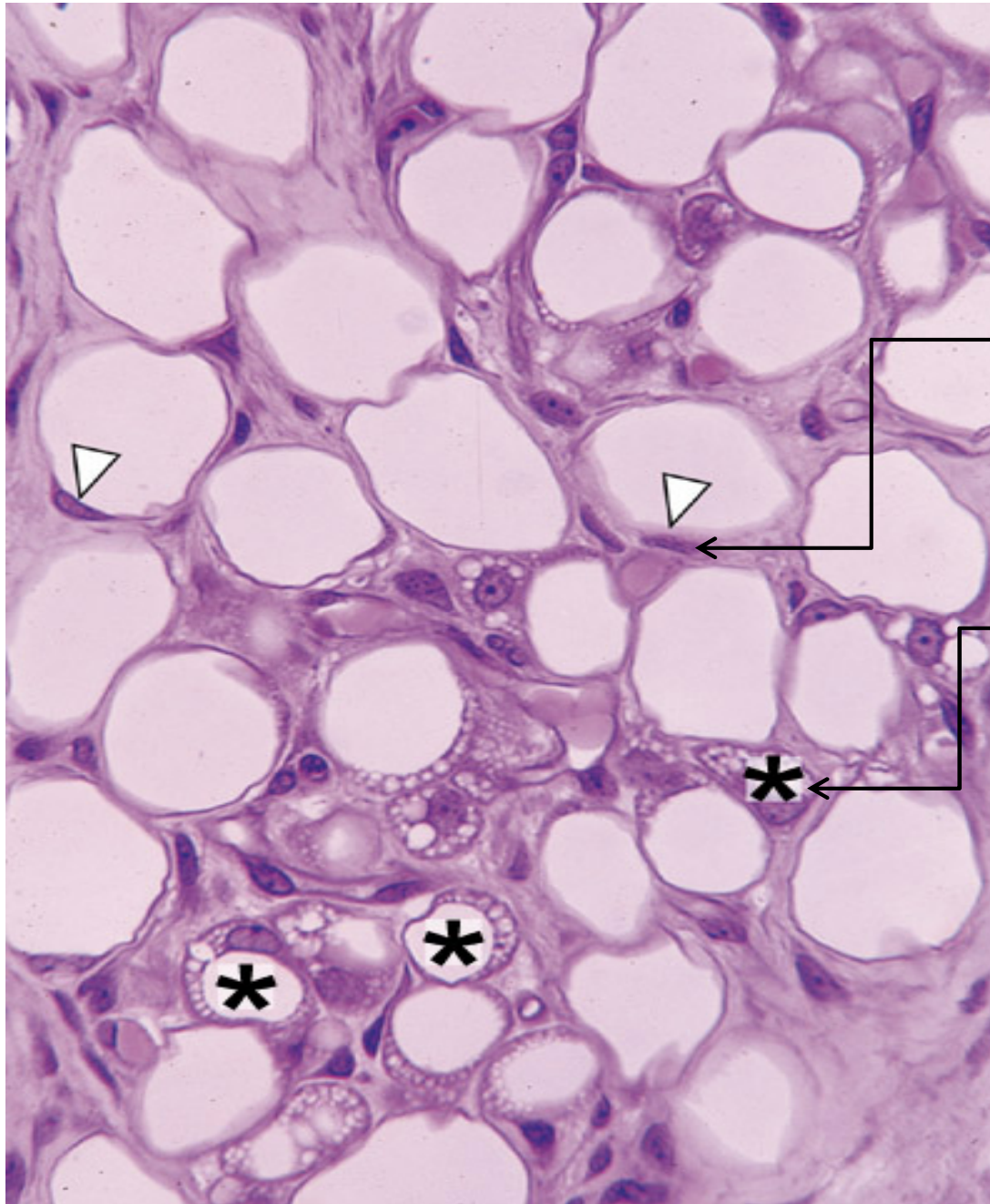
- Subcutaneous layer deep to skin;
- Around the heart;
- Around the kidneys;
- Yellow marrow of the long bones
- Padding around the joints
- Inside the eye-socket, posterior to the eyeball.

**The Functions of adipose tissue**

- Adipose tissue acts as an **insulating layer**, helping to reduce heat loss through the skin.
- It also has a **protective** function, providing mechanical protection ("padding") and **support** around some of the major organs, e.g. kidneys.
- Adipose tissue is also a means of **energy storage**.  
Food that is excess to requirements is converted into fat and stored within adipose tissue in the body.

# Adipose Tissue





nuclei of adipocytes

Adipocytes in  
growing stage

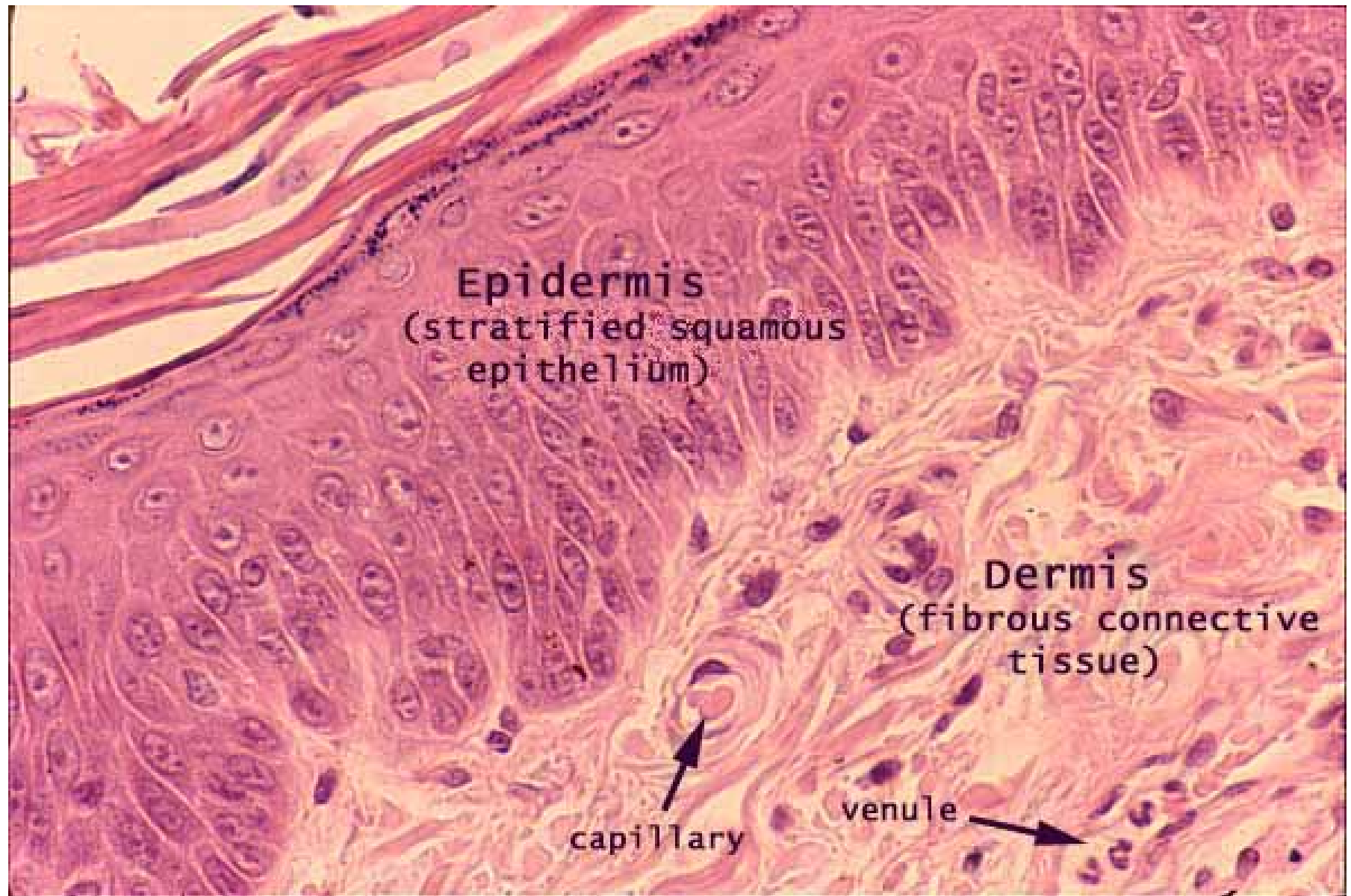
Most connective tissue is serving several vital functions simultaneously, including --

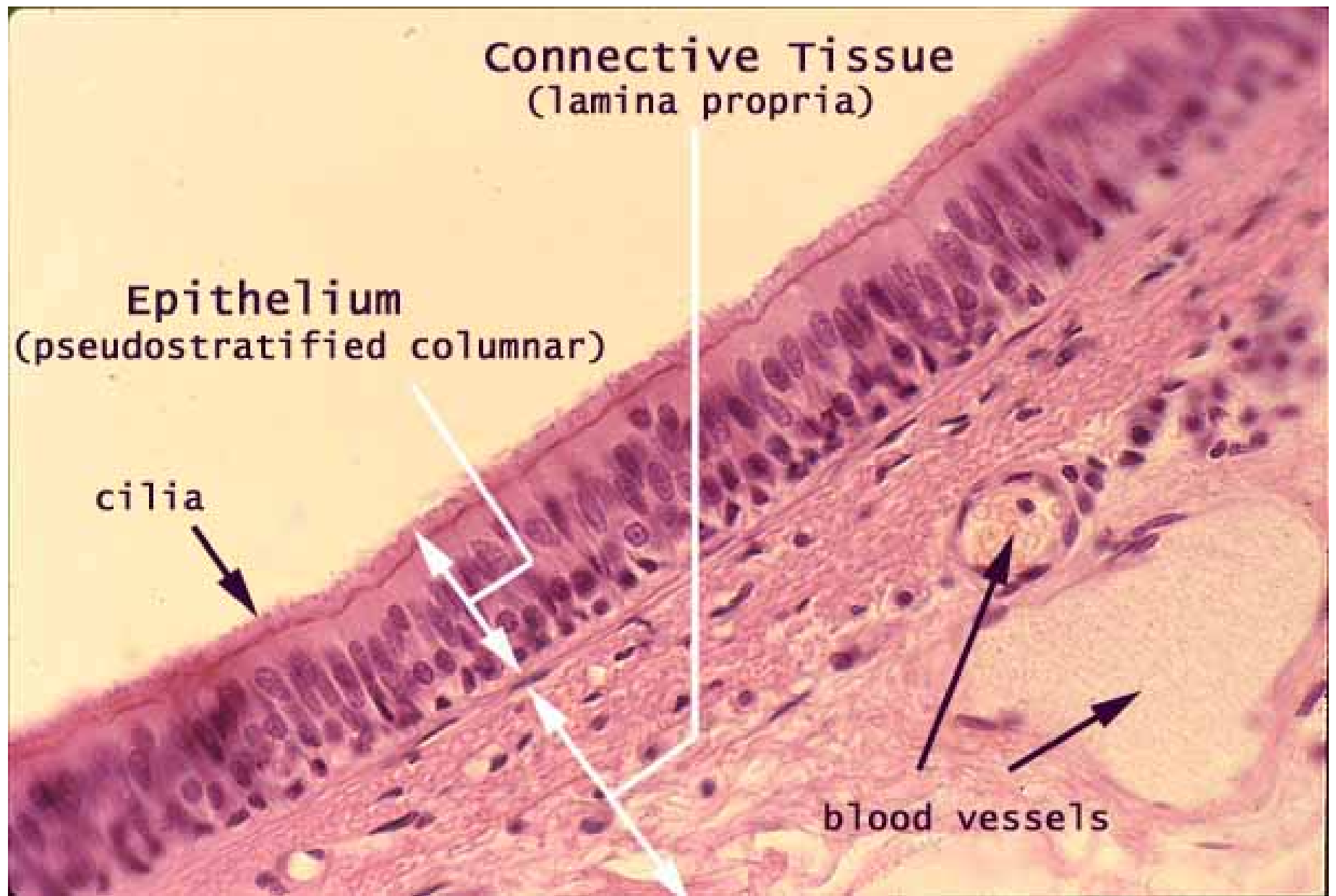
- transport of nutrients and metabolites,
- immunological defense,
- mechanical support.

After injury, connective tissue is instrumental in tissue repair, specifically in scar formation.

- Additional functions found in specialized sites include --
- reserve energy storage (as fat),
- heat generation (brown fat),
- hemopoiesis (blood cell formation).

## **FUNCTIONS of Connective Tissue**







<http://www.siumed.edu/~dking2/intro/ct.htm#types>