

Tissue Healing and Repair

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ILOs:

01

Define
healing

02

Discuss the process
of healing

03

Describe skin
structure

04

Explain wound
healing phases

05

List factors that
effect healing

Healing....



- The healing is the body's response to injury an effort to restore normal structure and function

- **The process of healing:**

The process of healing includes two processes:

1. Regeneration
2. repair

Regeneration:

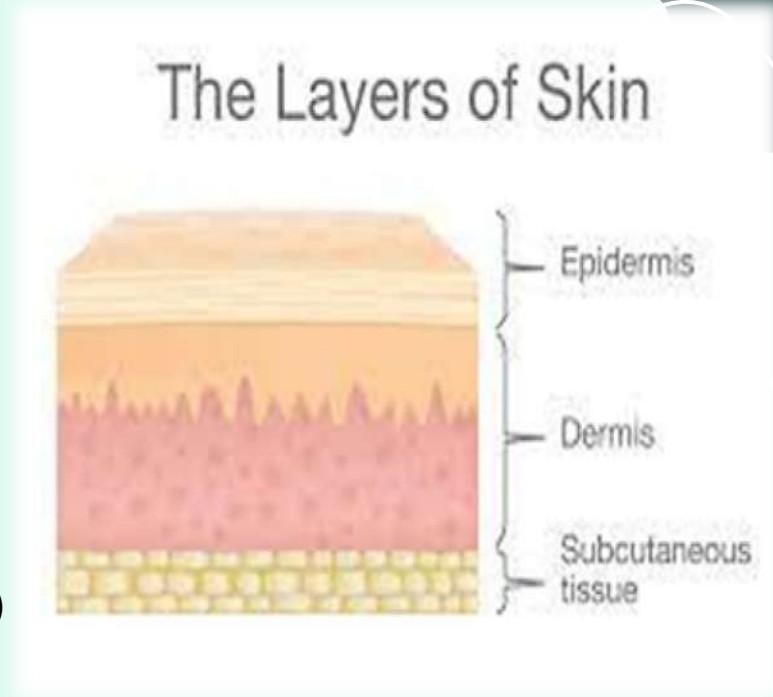
- Is when healing takes place by proliferation of parenchymal cells and usually results incomplete
- Restoration of the original tissues

Repair:

- Tissues do not return to their normal architecture and function in a healing outcome

Skin structure ...

- Skin has three layers:
- The epidermis, the outermost layer of skin, provides a waterproof barrier and creates our skin tone.
- The dermis, beneath the epidermis, contains tough connective tissue, hair follicles, and sweat glands.
- The deeper subcutaneous tissue (hypodermis) is made of fat and connective tissue.



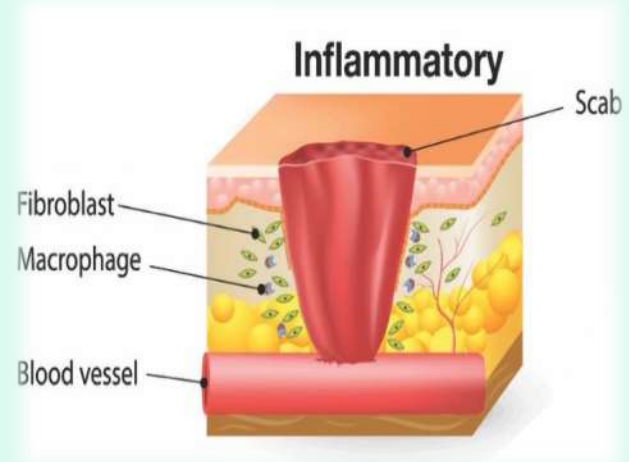
The Wound healing phases...

- **Hemostasis:**

1. vascular constriction.
2. platelet aggregation, degranulation, and fibrin formation (thrombus).

- **Inflammation:**

1. neutrophil infiltration
2. monocyte infiltration and differentiation to macrophage
3. lymphocyte infiltration



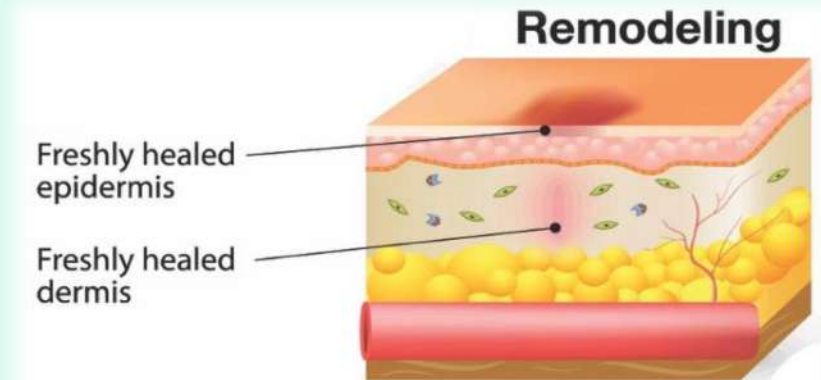
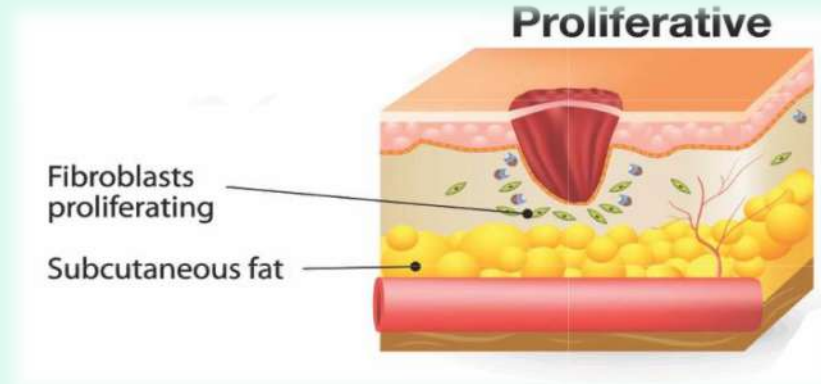
The Wound healing phases...

- **Proliferation:**

1. re-epithelialization
2. angiogenesis
3. collagen synthesis
4. ECM formation

- **Remodeling:**

1. collagen remodeling
2. vascular maturation and regression



Factors that affect skin wound healing...

1. Local factors...

- ✓ Infection
- ✓ Foreign bodies
- ✓ Mechanical stress\ Pressure
- ✓ Wound hydration
- ✓ Temperature
- ✓ Ionizing radiation
- ✓ Oxygen Tension

Factors that affect skin wound healing...

2. Systemic factors...

- ✓ Nutrition
- ✓ Drugs
- ✓ Age
- ✓ Vitamins
- ✓ Immunity
- ✓ Trace elements

Summary..

- When it was done, we learn Skin structure has three layers:(epidermis, dermis, and hypodermis).
- Normal Wound-healing Process consist of 4 continuous phases.
- Finally, learned about factors affecting wound healing (systemic and local).

References...

<https://www.slideshare.net/raviacharyaa21/wound-healing-seminar>

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Thanks.....

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