

# Proliferation

## Proliferation

The proliferative phase starts around day 3 and lasts for 2–4 weeks. It consists mainly of fibroblast activity with the production of ground substance (glycosaminoglycans and - proteoglycans), collagen, angiogenesis and re-epithelialisation of the wound. The wound tissue formed in the early part of this phase is - called granulation tissue. It has a pink and granular appear - ance. In the later part of this phase, there is an increase in the tensile strength of the wound as a result of increased colla gen synthesised by fi broblasts. Some fi broblasts di ff erentiate into myofi broblasts, which are contractile cells. These play an important role in contraction to bring the edges of the wound together .

(a) Epithelial cell Sebaceous gland Fibrin clot Sweat duct gland Platelet Neutrophil Fibroblast Eschar  
(b) Macrophage New blood vessel Granulation tissue Monocyte Figure 3.1 Classic stages of wound healing. (a) In /f\_l amination. G, Werner S, Barrandon Y et al . Wound repair and regeneration.

## Proliferation

The proliferative phase starts around day 3 and lasts for 2–4 weeks. It consists mainly of fibroblast activity with the production of ground substance (glycosaminoglycans and - proteoglycans), collagen, angiogenesis and re-epithelialisation of the wound. The wound tissue formed in the early part of this phase is - called granulation tissue. It has a pink and granular appear - ance. In the later part of this phase, there is an increase in the tensile strength of the wound as a result of increased colla gen synthesised by fi broblasts. Some fi broblasts di ff erentiate into myofi broblasts, which are contractile cells. These play an important role in contraction to bring the edges of the wound together .

(a) Epithelial cell Sebaceous gland Fibrin clot Sweat duct gland Platelet Neutrophil Fibroblast Eschar  
(b) Macrophage New blood vessel Granulation tissue Monocyte Figure 3.1 Classic stages of wound healing. (a) In /f\_l amination. G, Werner S, Barrandon Y et al . Wound repair and regeneration.

## Proliferation

The proliferative phase starts around day 3 and lasts for 2–4 weeks. It consists mainly of fibroblast activity with the production of ground substance (glycosaminoglycans and - proteoglycans), collagen, angiogenesis and re-epithelialisation of the wound. The wound tissue formed in the early part of this phase is - called granulation tissue. It has a pink and granular appear - ance. In the later part of this phase, there is an increase in the tensile strength of the wound as a result of increased colla gen synthesised by fi broblasts. Some fi broblasts di ff erentiate into myofi broblasts, which are contractile cells. These play an important role in contraction to bring the edges of the wound together .

(a) Epithelial cell Sebaceous gland Fibrin clot Sweat duct gland Platelet Neutrophil Fibroblast Eschar  
(b) Macrophage New blood vessel Granulation tissue Monocyte Figure 3.1 Classic stages of wound healing. (a) Inflammation. G, Werner S, Barrandon Y et al . Wound repair and regeneration.

---

Revision #1

Created 2025-12-31 15:12:49 UTC by Omar Ayman

Updated 2025-12-31 15:12:49 UTC by Omar Ayman