

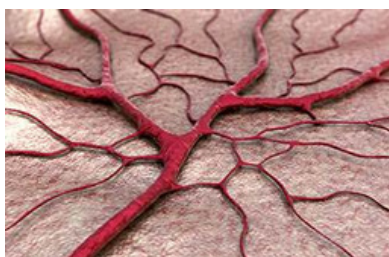
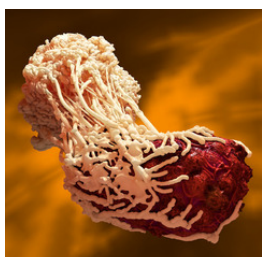


# WOUND HEALING

Episode 7.1

## PRIMARY PHASES OF WOUND HEALING

1. **Coagulation:** reflex vasoconstriction, coagulation cascade
2. **Inflammation:** immune barrier from invading microbes
3. **Proliferation:** granulation tissue formation, angiogenesis
4. **Remodeling:** transformation to a stronger collagen type



## TYPES OF WOUND REPAIR

**Primary** - wound edges brought together by suture, etc.

**Delayed primary** - wound edges closed days after injury  
eg. contaminated wounds

**Secondary** - wounds heal by a combination of contraction and epithelialization

## FACTORS AFFECTING WOUND HEALING

### Disease states

Hereditary - coagulation d/o

Vascular - vasculitis, lymphedema

Metabolic - DM, renal failure

Immunosuppressed - malignancy

### Local factors

Medications - glucocorticoids, anticoagulants / NSAIDs

Ischemia

Infection

Radiation

### Host factors

Obesity

Age > 60

Smoking

Alcohol abuse



## METHODS TO IMPROVE WOUND HEALING

### Hyperbaric oxygen

- Enhances diffusion of oxygen into hypoxic tissues
- Stimulates fibroblast proliferation, angiogenesis and collagen formation
- Bactericidal and bacteriostatic
- Used for osteoradionecrosis in select (mild) cases

### Proper wound care

- Open wounds heal best when kept moist and covered
- Scabs should not be removed
- Eschars should be debrided gently