

Pathology Class 3:

Healing & Recovery – Why Some Wounds Don't Heal

ANSWER KEY: Pre-Assessment Quiz: Pathology Week 3 (Ages 10-13yo)

1. When your body heals a cut, what is the correct order of the main healing stages?
 - a) **Stop bleeding → Clean up (inflammation) → Build new tissue → Strengthen & remodel**
 - b) Build new tissue → Stop bleeding → Clean up → Scar only
 - c) Inflammation → Remodeling → Stop bleeding → Build tissue
 - d) Scar → Clot → Regrow → Finish
2. What is the very first thing your body tries to do after you get a cut?
 - a) Make a scar
 - b) **Stop the bleeding**
 - c) Grow new skin
 - d) Send nerve signals
3. If a scrape becomes red, warm, and a little swollen, which healing stage is happening?
 - a) Remodeling
 - b) Regeneration
 - c) Hemostasis
 - d) **Inflammation**
4. What does regeneration mean in healing?
 - a) The tissue is covered by a scab
 - b) The tissue turns into bone
 - c) **The body replaces damaged tissue with the same kind of healthy tissue**
 - d) The body always makes a scar
5. Which organ in your body has the **strongest ability to regrow (regenerate)** after injury?
 - a) **Liver**
 - b) Heart
 - c) Kidney
 - d) Spleen
6. Which tissues usually heal the most slowly because they have poor blood supply?
 - a) Skin and muscle
 - b) Bone and liver
 - c) **Tendons and cartilage**
 - d) Blood vessels and spleen

7. A keloid is:
 - a) A dangerous infection
 - b) A type of cancer
 - c) A normal small scar
 - d) **An overgrown scar that keeps building too much tissue**

8. Which factor most affects how fast and how well tissue heals?
 - a) Eye color
 - b) **Blood supply to the area**
 - c) Hair type
 - d) Which side of the body is injured

9. Apoptosis (programmed cell death) is often GOOD and healthy. Which is a correct example?
 - a) It causes all scars
 - b) It stops all healing
 - c) It only happens in disease
 - d) **It helps remove extra cells, so we don't have webbed fingers and toes after birth**

10. Which statement about healing is most accurate?
 - a) **Different tissues heal at different speeds**
 - b) All tissues heal the same way
 - c) Healing never uses inflammation
 - d) Scar tissue is always just as strong as original tissue

Home Activity – ANSWER KEY

Healing Timeline Tracker

What to do:

Think of a scrape, cut, bruise, or sore muscle you've had before.

Put these healing stages in order (number them 1–4):

- 1 Stop bleeding
- 3 Build new tissue
- 2 Clean-up inflammation
- 4 Remodeling and strengthening

Then answer:

- Which stage do you think hurts the most? (2 – clean-up inflammation)
- Which stage lasts the longest? (4 – remodeling and strengthening)

Regeneration vs Scar — Real World Sorting

Label each example:

Write **R** = regeneration or **S** = scar/fibrosis

- **R**__ Small shallow skin cut heals with almost no mark
- **S**__ Thick raised scar after deep cut
- **R**__ Liver regrows damaged tissue
- **S**__ Torn tendon heals stiff and weaker
- **R**__ Bone heals and becomes strong again
- **S**__ Keloid scar lump

The Cell “OFF Button” Check

Circle the TRUE statements about apoptosis (healthy cell self-destruct):

- It is always bad
- It helps shape fingers and toes before birth
- It removes badly damaged cells
- It causes all scars
- It is part of healthy growth

 **Injury Type**

Choose: **Sprain, Strain, Broken Bone**

- Twisted ankle → SPRAIN
- Pulled muscle → STRAIN
- Bone fracture → BROKEN BONE
- Tennis or golfers' elbow → STRAIN
- Frozen shoulder → STRAIN (primary structure = tendons)
- Cracked rib → BROKEN BONE
- Twisted knee during soccer → SPRAIN (primary structure = ligaments)
- Jammed Finger → SPRAIN
- Wrist bent backward in a fall → SPRAIN
- Pulled hamstring muscle → STRAIN
- Shoulder ligament tear → SPRAIN
- Stress fracture in foot → BROKEN BONE
- Torn Achilles tendon → STRAIN