

**5. Histamine and serotonin are released from human**

- A. endothelium**
- B. fibroblasts**
- C. macrophages**
- D. neutrophils**
- E. platelets XXX**

**1 . Apoptosis will NOT produce**

- A. crosslinking of proteins**
- B. dissolution of cytoskeleton**
- C. fragmentation of the genome**
- D. inflammation around the dead cell XXX**
- E. separation from surrounding cells**

**6. Aggregates platelets and constricts blood vessels**

- A. C3b**
- B. C5b-9**
- C. leukotriene B4**
- D. prostaglandin E**
- \* E. thromboxane A2**

7. Which is NOT evidence of irreversible cell injury?

- A. \*A. acute cell swelling ("cellular edema")
- B. calcium chunks in the mitochondria
- C. nuclear pyknosis
- D. rupture of the lysosomes
- E. all the above are evidence of irreversible injury

8. Which ion is blamed for "reperfusion injury"?

- \* A. calcium
- B. magnesium
- C. phosphate
- D. potassium
- E. sodium

9. You're most likely to see caseous necrosis in

- A. calcified fat around a wounded pancreas
- B. gangrenous diabetic foot
- C. infarcted myocardium
- D. pus in a boil
- \* E. tuberculous lung

10. The "acute phase reaction" in acute inflammation is a group of

**biochemical changes mediated by:**

- A. dilatation of small blood vessels**
- \* B. factors released from macrophages**
- C. histamine and complement components, among others**
- D. neutrophil injury to tissue**
- E. the increased erythrocyte sedimentation rate**

**13. Which is MOST LIKELY to produce directly an exudate rather than a transudate?**

- \* A. inflammation**
- B. kidney failure**
- C. left-sided heart failure**
- D. liver failure**
- E. plugged lymphatics**

**16. stratified squamous epithelium in a smoker's airway is**

- A. atrophy**
- B. dysplasia**
- C. hyperplasia**

**D. hypertrophy**

**\* E. metaplasia**

**17. In the lung. The carbon pigment is located within**

**A. basal cells**

**B. fibroblasts**

**C. lymphocytes**

**\* D. macrophages**

**E. mast cells**

**18. Which is NOT true of leukotriene B4?**

**A. arachidonic acid metabolite**

**B. chemotactic for neutrophils**

**C. makes vessels permeable to albumin**

**\* D. opsonizes bacteria**

**E. promotes neutrophil adherence to endothelium**

- A. caseous necrosis
- B. coagulation necrosis
- C. fibrinoid necrosis
- D. liquefaction necrosis
- E. no necrosis

19. heart attack, day 4 [B]

20. sudden cardiac death [E]

21. polyarteritis, vessel wall [C]

22. pus, gas gangrene, brain infarct [D]

23. tuberculosis [A]

28. pumped-up muscles in a bodybuilder Effect is predominantly...

- A. anaplasia
- B. dysplasia

- C. hyperplasia
- \* D. hypertrophy
- E. metaplasia

Altered cell growth.

- A. atrophy
- B. dysplasia
- C. hyperplasia
- D. hypertrophy
- E. metaplasia

- 51. adrenal cortex shrank after the pituitary stopped making ACTH [A]
- 52. bizarre, precancerous cells on a pap smear of the cervix [B]
- 53. pumped-up muscles in a bodybuilder [D]
- 54. red cell marrow precursors after a blood donation [C]
- 55. stratified squamous epithelium in a smoker's airway [E]

1. Hyperplasia:

\*A. is characterized by an increase in cell number

B. is characterized by an increase in cell size, leading to an increase in organ size

- C. is characterized by smaller-than-normal cells which may undergo necrosis**
- D. is always a pathologic process**

**2. Apoptosis:**

- A. is usually a regulated, controlled process**
- B. plays a role in embryogenesis**
- \*C. both**
- D. neither**

**1. Atrophy is**

- A. a decrease in the size of cells**
- B. an increase in the number of cells**
- C. an increase in the size of cells**
- D. a change from one cell type to another**
- E. a form of dysplasia**

**2. An increase in the size of an organ due to increased numbers of cells is**

- A. atrophy
- B. hypertrophy
- C. hyperplasia
- D. metaplasia
- E. dysplasia

3. Hypoxia is

- A. lack of oxygen relative to demand
- B. allergic reaction
- C. infection
- D. always due to lung problems
- E. never due to heart disease

4. Examples of ischemic heart disease include all of the following except

- A. angina
- B. chronic fibrosis
- C. myocardial infarcts
- D. cardiomyopathy
- E. cardiac myxoma

