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# QUIZ 5

A 1. Which of the following changes would most increase the resistance to blood flow in a blood vessel?
A. Halving the diameter of the vessel
B. Doubling the diameter of the vessel
C. Halving the length of the vessel
D. Doubling the length of the vessel
E. Decreasing the hematocrit from 50% to 40%

B D 2. Following hemorrhage, reflexes are triggered that attempt to compensate for the blood loss. As a result of the blood loss and the reflex mechanisms, which of the following will be true, compared to prehemorrhage values?
D A. Both cardiac output and total peripheral resistance will be increased
B. Both cardiac output and total peripheral resistance will be decreased
C. Cardiac output will be increased and total peripheral resistance will be decreased
D. Cardiac output will be decreased and total peripheral resistance will be increased
E. Hematocrit will be increased

E 3. Cardiac output is the
A. Volume of blood pumped per minute by both ventricles
B. Volume of blood flowing through the systemic circulation each minute
C. Product of the number of heartbeats per minute and the volume pumped per beat
D. Both A and C.
E. Both B and C.

D 4. A trained athlete differs from a "couch potato" in that the athlete has
A. A lower heart rate at rest
B. A higher heart rate at rest
C. Greater stroke volume at maximal effort
D. A lower heart rate at rest and greater stroke volume at maximal effort
E. A higher heart rate at rest and greater stroke volume at maximal effort

E 5. Which of the following is a result of increased sympathetic stimulation of vascular smooth muscle?
A. Filtration in capillaries increases
B. Total arteriolar diameter increases
C. The percentage of blood volume in the veins increases
D. Blood flow to the brain decreases
E. Venous return of blood to the heart increases

E 6. With regard to the regulation of heart rate,
A. Stimulation of parasympathetic nerves to the heart causes a slowing of heart rate
B. Stimulation of sympathetic nerves to the heart causes an increase in heart rate
C. Plasma epinephrine causes an increase in heart rate.
D. Both A and B.
E. All of the choices are true

Which of the following factors would not tend to increase blood pressure directly?
A. Increased sympathetic stimulation of the blood vessels
B. Increased blood volume
C. Increased venous return
D. Increased parasympathetic stimulation of the heart
E. Increased activity of the skeletal muscle pump

How would a hemorrhage immediately affect the activity of the baroreceptors?
A. The baroreceptors would decrease their rate of firing. This would cause vasodilation and a decrease in cardiac output, which together would decrease blood pressure
B. The baroreceptors would increase their rate of firing. This would cause vasoconstriction and an increase in cardiac output, which together would increase blood pressure
C. The baroreceptors would decrease their rate of firing. This would cause vasoconstriction and an increase in cardiac output, which together would increase blood pressure
D. The baroreceptors would increase their rate of firing. This would cause vasodilation and a decrease in cardiac output, which together would decrease blood pressure
E. The baroreceptors would decrease their rate of firing. This would cause vasodilation and an increase in cardiac output, which together would decrease blood pressure

The body responds to hemorrhage by
A. Decreasing the heart rate below normal
B. Decreasing total peripheral resistance to below normal levels
C. Raising mean arterial pressure to above normal
D. Increasing cardiac output to above normal levels
E. Keeping mean arterial pressure to levels approaching but below normal

Stimuli for vasopressin (ADH) secretion include
A. Increased plasma osmolarity
B. Increased plasma volume
C. Ingestion of alcohol
D. Both A and B.
E. All of the choices are true