Learning Objectives for students of the Faculty of Physical Medicine and Rehabilitation

Pathophysiology

1. Disease classification, nomenclature, stages

2. Pathological reaction, pathological process and pathological condition

3. Death, reviving the body, post-resuscitation pathology

4. Typical forms of cell damage, dystrophy, dysplasia

5. Cell necrosis, apoptosis, mechanism of their development

6. General adaptation syndrome, stress reaction

7. Shock, its pathogenesis and types

8. Collapse, coma, their pathogenesis

9. Damage effect of mechanical factors on the body

10. Traumatic injuries of the skull

11. Damaging effect of acceleration on the body

12. Damage effect of thermal factors on the body. Body overheating, heat stroke, their pathogenesis

13. Burn disease, its stages

14. Mechanism of damaging effects of low temperature on the body

15. Mechanism of damaging action of ionizing radiation. radiation sickness. his faces

16. The role of body constitution in pathology

17. Essence and mechanisms of hypoxia. Types of hypoxia

18. Arterial hyperemia: causes, mechanisms and consequences. Microhemocirculation during arterial hyperemia

19. Venous hyperemia: causes, mechanisms and consequences. Microhemocirculation during venous hyperemia

20. Ischemia: causes, consequences, microhemocirculation during ischemia

21. Stasis: causes, consequences

22. Thrombosis, disseminated intravascular coagulation, mechanisms of their development.

23. Embolism, its types

24. The essence of inflammation, its etiology, signs

25. Pathogenesis of inflammation. Vascular response during inflammation

26. Exudation, mechanism of its development. Types of exudate

27. Mediators of inflammation, their mechanisms of action and effects

28. Solution of inflammation. Its importance for the body

29. Allergy: etiology, classification, general mechanisms of development

30. Pathogenesis of hypersensitivity type I (anaphylactic).

31. Type II (cytotoxic) hypersensitivity. its pathogenesis

32. III (Artus) type of hypersensitivity. its mechanism

33. Pathogenesis of IV (tuberculin) type of hypersensitivity

34. Fever, its comparative pathology. Pyrogenic substances

35. Stages of fever. Difference between fever and hyperthermia, its use in medicine

36. Etiology and pathogenesis of tumor growth. Character of growth and differentiation.

37. Biological features of malignant growth. Tumor metastasis

38. Types of hyperglycemia and glucosuria, mechanisms of their development

39. Diabetes. Its etiology and pathogenesis

40. Mechanisms of protein metabolism disorders

41. Obesity, its types and mechanisms of development

42. Forms of violation of water exchange

43. Swelling

44. Cardiac and cachexic edema

45. Nephritic and nephrotic edema

46. Typical forms of vitamin metabolism disorders – hyper- and hypovitaminoses, mechanisms of their development

47. Change in circulating blood volume

48. Anemia. Principles of anemia classification. Posthemorrhagic anemia

49. Hemolytic anemias

50. Anemias developed as a result of erythropoiesis disorders

51. Erythrocytosis

52. Changes in the leukocyte formula. Leukocytosis, leukopenia. leukemias

53. Heart failure developed due to overload

54. Heart failure caused by damage to the myocardium and pericardium

55. Compensatory mechanisms during heart failure

56. Features of hypertrophied heart

57. Violation of nervous and humoral regulation of vascular tone. Hypertensive disease

58. Forms of pulmonary ventilation disorders.

59. Disturbance of diffusion in lungs.

60. Decreased perfusion of pulmonary blood vessels.

61. Changes in the act of breathing. shortness of breath

62. Periodic breathing. Asphyxiation.

63. Indigestion in the mouth.

64. Indigestion in the stomach.

65. Indigestion in the intestines.

66. Pancreatic juice secretion disorder.

67. Liver failure.

68. Violation of bile production and excretion.

69. Pathogenesis of jaundice.

70. Diuresis disorders.

71. Violation of the function of nephrons.

72. Disturbance of renal tubule function.

73. Pathological components of urine.

74. Etiology and pathogenesis of endocrine disorders

75. Pain. Antinociceptive system

76. Physiological and pathophysiological bases of kinesiology.

77. Types of muscles. Types of muscle load

78. Changes in the function of organs and systems during physical exertion

79. Building muscle fibrils. muscle fatigue

80. Muscular work and pharmacological agents