

**1. What profession does not include vibration disease risk?**

- a) ☐ Stone crusher
- b) ☐ Mining - drill
- c) ☒ Installation - electric
- d) ☐ Concrete
- e) ☐ Rectifier – polishers

**2. Which acid is eliminated with urine in case of intoxication with plumbum:**

- a) ☐ Arachidonic acid
- b) ☒ Aminolevulinic acid
- c) ☐ Etacrinic acid
- d) ☐ Folic acid
- e) ☐ Uric acid

**3. What is the initial link in the pathogenesis of vascular changes in vibration disease?**

- a) ☐ Sudden vasodilatation
- b) ☒ Angiospasm
- c) ☐ **Intimae** vascular necrosis
- d) ☐ Vascular **intimae** hypertrophy
- e) ☐ Perforation of the vessel wall

**4. Trophic disorders arising in vibration disease caused by the action of local vibration are the following, except:**

- a) ☐ Palmar hyperkeratosis
- b) ☒ Increase drawing
- c) ☐ Thickened, deformed angles
- d) ☐ Multiple palmary Cracks
- e) ☐ Miofasciculite, tendomiozite

**5 Which is the main cause of professional neoplastic lesions in men:**

- a) ☐ Kidney cancer
- b) ☐ Laryngeal cancer
- c) ☒ Bronchopulmonary cancer
- d) ☐ Sinonasal cancer
- e) ☐ Prostate cancer

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**6. Which of the listed powders contributes to silicosis?**

- a) ☐ Plumbum
- b) ☐ Phosphorus
- c) ☐ Arsenic
- d) ☐ The boron
- e) ☒ Free powder containing SiO<sub>2</sub>

**7. Early clinical symptoms of silicosis are the following, except:**

- a) ☒ Hemoptysis
- b) ☐ Cough
- c) ☐ Dyspnea
- d) ☐ Toracalgiile

e) ☐ Respiratory insufficiency

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**8: Name the syndromes which cannot be included lead poisoning:**

- a) ☒ Chronic obstructive bronchitis
- b) ☐ Red blood cells with granular basophilic
- c) ☐ motor Polyneuritis
- d) ☐ Anemia
- e) ☐ Colic Saturnine

**9. Methaemoglobin formation occurs in the following poisoning:**

- a) ☐ Fluoride
- b) ☐ Mercury compounds
- c) ☒ The amino-and nitro-benzene compounds
- d) ☐ The lead
- e) ☐ Arsenic compounds

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**10. Name intoxication in which corpuscles Heinz have diagnostic value:**

- a) ☐ Mercury compounds
- b) ☐ Fluoride
- c) ☐ Plumbum
- d) ☐ Plumbum tetraethyl
- e) ☒ The amino-and nitro-benzene compounds

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**11.: Clarify anemia pathogenesis in chronic intoxication with plumbum:**

- a) ☐ Iron-deficiency anemia
- b) ☐ Aplastic anemia
- c) ☐ Hemorrhagic anemia
- d) ☐ B12 deficiency anemia
- e) ☒ Blockade of hem formation

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**12 For the treatment of “saturnine colic” are used next medicine, with exception of:**

- a) ☐ Atropine
- b) ☐ Novocaine blockade
- c) ☐ Pentacine
- d) ☐ Tetacine
- e) ☒ Laxative

**13 Acute intoxication with chlorine is shown by:**

- a) ☐ Asthenic-vegetative syndrome, encephalopathy, polyneuropathy
- b) ☒ Tearing, dry and burning in the nasal cavity and larynx, hoarseness, chest restraint, painful cough
- c) ☐ Icteric color of skin
- d) ☐ Dizziness, nausea, palpitations, loss of consciousness, convulsions
- e) ☐ Stomatitis and ulcerative gingivitis

**14. Clarify which prescription are not included in the acute intoxication with chlorine treatment:**

- a) ☐ Patients evacuation from dangerous zone

- b) ☐ Work clothes taking off
- c) ☒ Glucocorticosteroids administration
- d) ☐ Eyes rinsing with sodium bicarbonate solution
- e) ☐ Euphyllin, Ephedrin, Dimedrol administration

**15. What is the toxic action of fosfor organic pesticides?**

- a) ☒ Decreased cholinesterase activity
- b) ☐ increase the activity of cholinesterase
- c) ☐ Decrease acetylcholine content
- d) ☐ Increase blood pH
- e) ☐ Decrease in blood O<sub>2</sub> content

**16. Indicate which medicine restores cholinesterase activity in acute fosfor organic pesticides intoxication:**

- a) ☒ Dipiroxim
- b) ☐ Glucosa
- c) ☐ O<sub>2</sub> inhalations
- d) ☐ Vitamin B<sub>1</sub>
- e) ☐ Cocarboxilase

**17. Pesticides groups according to classification are the next, with exception of:**

- a) ☐ Insecticides
- b) ☐ Bactericides
- c) ☐ Fungicides
- d) ☐ Herbicides
- e) ☒ Mixt

**18. Complications of silicosis are the next, with exception of:**

- a) ☐ TBC
- b) ☐ Chronic bronchitis
- c) ☐ Pulmonary emphysema
- d) ☐ Spontaneous pneumothorax
- e) ☒ Cardiomyopathy

**19. The most informative instrumental investigations used in pneumoconiosis diagnostics are the next, with exception of:**

- a) ☒ Pleural puncture
- b) ☐ Tomography
- c) ☐ Bronchography
- d) ☐ Spirography
- e) ☐ X-Ray

**20. Prophylactic measures in vibration disease are the next, with exception of:**

- a) ☐ The use of shock absorbers
  - b) ☐ Periodic medical examination of workers
  - c) ☐ Breaks and gymnastics
  - d) ☐ Automation of the production process
  - e) ☒ Avoidance of smoking
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**21. Which is the first line antidote used in the treatment of plumbum intoxication:**

- a) ☐ Succimetr
- b) ☐ Unitiol
- c) ☐ Edtamin
- d) ☐ Fenol
- e) ☒ Diproxim

**22. The substances with suffocating effect are the next, with exception of:**

- a) ☐ Clorine
- b) ☐ Sulfur oxide
- c) ☒ Plumbum acetate
- d) ☐ Nitric oxide
- e) ☐ Ammonia

**23. Name the activity and workplace with high risk of anthracosis development:**

- a) ☐ Coal mining
- b) ☐ Coal charging in coaches
- c) ☐ Coal grinding
- d) ☐ Manufacture of coal electrodes and carbon black
- e) ☒ Manufacture of footwear

**24. Name the anthracosis pathogenesis, with the exception of:**

- a) ☐ Coal dust has not fibrogenous properties, it acts by agglomeration
- b) ☐ Absorption of toxic gases (level of coal particles)
- c) ☐ Reticular proliferation
- d) ☐ Collagenous proliferation
- e) ☒ Anticholinergic effects

**25. Name basic complaints in anthracosis, with the exception of:**

- a) ☐ Frequently asymptomatic
  - b) ☐ Dyspnea on physical effort
  - c) ☐ Dry cough or with sputum
  - d) ☒ Pain in the heart
  - e) ☐ On objective examination – bronchial rales, pulmonary stasis
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**26. Collagenous pneumoconiosis may be induced by:**

- a) ☒ Fibrogenous dusts with the induction of collagenous type reaction
- b) ☐ Non-fibrogenous dusts with accumulation in one lung
- c) ☐ Mix dusts
- d) ☐ Non-fibrogenous dusts with reversed immunological reaction
- e) ☐ Fibrogenous dusts with anterior specific infections

**27. Name the characteristic clinical signs of vibration disease caused by the combination of local and general vibration:**

- a) ☒ Temporo-frontal headache
- b) ☐ Pain, paraesthesia in legs
- c) ☒ Progressive Asthenia
- d) ☐ Nosebleeds
- e) ☒ "Autonomic crises"

**28. Investigations more informative tool used in the diagnosis of vibration disease are:**

- a) ☒ Capilaroscopy
- b) ☒ Thermometers
- c) ☐ Ultrasonography
- d) ☒ Electromyography
- e) ☒ Electromyo Tonometria

**29. Vibration disease differential diagnosis is made with the following:**

- a) ☒ Raynaud's disease
- b) ☐ Rheumatic fever
- c) ☒ Syringomyelia
- d) ☒ Vegetative polyneuritis
- e) ☒ Bekhterev's disease (Ankylosing spondylitis)

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**30. Name the basic complaints presented in vibration disease caused by the action of local vibration:**

- a) ☐ Fever 38 ° C
- b) ☒ Accesses sudden whitening of the fingers of hands
- c) ☒ pain, accompanied by numbness in the limbs
- d) ☐ Somnolence
- e) ☐ dyspeptic disorders

**31. Name the vascular changes presented in vibration disease caused by action of local vibration:**

- a) ☒ Asymmetry of blood pressure
- b) ☒ Positive Pal-syndrome
- c) ☐ Palmar flushing
- d) ☒ "White spot" phenomenon
- e) ☐ Teleangiectasia

**32. The classification includes the following pathologies of pneumoconiosis:**

- a) ☒ Metalloconiozis
- b) ☒ Carboconiozis
- c) ☐ Dust bronchitis
- d) ☐ Subject to the inhalation of dust pneumoconiosis Mixed
- e) ☐ Subject to the inhalation of dust pneumoconiosis containing SiO<sub>2</sub>

**33. Name syndromes, which may form in pneumoconiosis:**

- a) ☐ Pericarditis
- b) ☒ Shortness of breath
- c) ☒ emphysema
- d) ☒ Pneumosclerosis
- e) ☐ Bronchitis

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**34. The most common complications in pneumoconiosis pathologies:**

- a) ☐ Allergic alveolitis
- b) ☒ Rheumatoid arthritis

- c) ☒ Bronchiectasis disease
- d) ☒ Pneumonia
- e) ☒ Tuberculosis

**35. The main methods of diagnosis of pneumoconiosis are:**

- a) ☐ Pleural puncture
- b) ☒ X-ray
- c) ☒ Spirografia
- d) ☒ Bronhografia
- e) ☒ Tomography

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**36. In what enumerated intoxications meets reticulocytosis and erithrocytosis with basophilic stippling:**

- a) ☐ Fluorine intoxication
- b) ☒ Acute intoxication with amino and nitro compounds of benzene
- c) ☒ Chronic intoxication with plumbum
- d) ☐ Intoxications with mercury
- e) ☐ Intoxication with arsenic

**37. Name necessary investigation for silicosis diagnosis:**

- a) ☒ occupational exposure to silicogenic dusts
- b) ☐ Chest X-Ray (standard and irreproachable technics)
- c) ☒ Clinical picture
- d) ☒ Sternal punction
- e) ☐ Abdominal ultrasound result

**38. What changes appear in blood in chronic benzene intoxications:**

- a) ☒ Leucopenia
- b) ☒ Anemia
- c) ☒ Thrombocytopenia
- d) ☒ Pancytopenia
- e) ☐ Eosinophilia

**39. Chronic intoxication with plumbum includes next signs:**

- a) ☒ Paroxysms of abdominal pain
- b) ☒ Tension of abdominal wall
- c) ☒ Reducing pain with pressure on the abdomen
- d) ☐ Constipation
- e) ☐ Liquid stools

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**40. Name the antidotes used in the treatment of mercury intoxication:**

- a) ☒ Unithiol
  - b) ☒ D-Penicilamin
  - c) ☐ Atropine
  - d) ☐ Proserin
  - e) ☐ Dibazol
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**41. Name pesticides according to chemical structure classification:**

- a) ☒ Chlor organic
- b) ☒ Phosphor organic
- c) ☒ Mercury organic
- d) ☐ Sulfur preparations
- e) ☐ Acid

**42. Name silicogenic particles properties:**

- a) ☒ Particles diameter is less than 5 mm
- b) ☒ Particles concentration is big in the working area air
- c) ☒ Allomorph variety is very fibrogenic
- d) ☐ Particles diameter is more than 5 mm
- e) ☐ Particles concentration is small in the working area air

**43. Name systems affected in chronic benzene intoxication:**

- a) ☒ Hematopoietic system
- b) ☐ Renal system
- c) ☒ Nervous system
- d) ☒ Cardiovascular system
- e) ☐ Muscular system

**44. Name professional groups exposed to risk of silicosis development:**

- a) ☐ Mining industry, gold mining
- b) ☐ Machine building industry
- c) ☒ Glass industry
- d) ☒ Production of pottery and porcelain
- e) ☒ Tunnel building, mechanic processing of quartz rocks

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**45. Harmful occupational factors include:**

- a) ☒ Physical factors
  - b) ☒ Chemical factors
  - c) ☒ Biological factors
  - d) ☒ Ergonomic factors
  - e) ☐ Environmental factors
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**46. Name systems and organs where preferential deposit harmful occupational factors:**

- a) ☒ Subcutaneous adipose tissue
- b) ☐ Muscular system
- c) ☒ Kidney
- d) ☒ Gastrointestinal tract
- e) ☒ Liver

**47. The main characteristics of phosphor organic intoxication pathogenesis are following:**

- a) ☒ Blockage of certain enzymes related to esterase (cholinesterase)
- b) ☒ Accumulating of mediator of the nervous system – acetylcholine
- c) ☒ Disturbance of nerve impulse transmission through the nervous cells and ganglionic synapses
- d) ☐ Disturbance of capillary-toxic action
- e) ☐ Disturbance of enzyme systems activity -

**48. Which are the clinical effects in phosphor organic pesticides intoxication:**

- a) ☒ Muscarinic effect
- b) ☒ Nicotinic effect
- c) ☒ Effect of acetylcholine central action
- d) ☐ Specific hyposensitization effect
- e) ☐ Cholinesterase action effect

**49. The muscarinic effects in phosphor organic pesticides intoxication are the following:**

- a) ☒ Bradycardia
- b) ☒ Miosis
- c) ☒ Smooth muscles of the intestine contracture
- d) ☐ Muscle tissue of the kidneys contracture
- e) ☐ Decreased secretion of salivary glands

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**50. The nicotinic effects in phosphor organic pesticides intoxication are the following:**

- a) ☒ Eyelids contracture
- b) ☒ Tongue contracture
- c) ☒ Neck contracture
- d) ☒ Arterial hypertension
- e) ☐ Muscular contracture

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**51. Name clinical manifestations in phosphor organic pesticides intoxication:**

- a) ☒ Nystagmus
- b) ☒ Swelling of the face
- c) ☒ Hyperhidrosis
- d) ☒ Breathing difficulty
- e) ☐ Acrocyanosis

**52. Name the properties of the chlorine organic pesticides derivatives:**

- a) ☒ Stability in the environment
- b) ☒ High solubility in fats
- c) ☒ Ability to accumulate in body tissues
- d) ☒ Solubility in fats
- e) ☐ Not stable in the environment

**53. Name the pathogenesis of chlorine organic pesticides intoxication:**

- a) ☒ Disturbance of enzyme systems activity
- b) ☒ Disturbance of tissue respiration
- c) ☒ Fat-soluble non-electrolytes
- d) ☐ Changes of fat-soluble electrolytes
- e) ☐ Disturbances of salivary glands secretion

**54. Name the ways of the chlorine organic pesticides penetration in organism:**

- a) ☒ Through respiratory ways
- b) ☒ Through gastrointestinal tract
- c) ☒ Through the skin
- d) ☐ Hematogenous way



e) ☐ Lymphogenous way

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**55. Name the properties of the mercury organic pesticides:**

- a) ☒ This is the group of chemical substances with high toxic effect
- b) ☒ Have high resistance
- c) ☒ Have ability to accumulation
- d) ☒ Represent a danger for contacted people
- e) ☐ They are not toxic chemical substances

**56. Name the pathogenesis of mercury organic pesticides intoxication:**

- a) ☒ The interaction of mercury with SH-groups of cell proteins
- b) ☒ Disturbance of the main enzyme systems activity
- c) ☒ No changes in the organism
- d) ☒ Capillary-toxic effect of the mercury organic pesticides
- e) ☐ Cardiotoxic action

**57. Name the peculiarities of the clinical picture in the acute mercury organic pesticides intoxication:**

- a) ☒ Gingivitis
- b) ☒ Gastroenterocolitis
- c) ☒ Asthenic vegetative syndrome
- d) ☐ Pain in the heart
- e) ☐ Arthralgia

**58. Name organs where preferential deposits plumbum:**

- a) ☐ Brain
- b) ☒ Bones
- c) ☒ Liver
- d) ☐ Lungs
- e) ☒ Kidneys

**59. What systems of the organism preferential acts plumbum on:**

- a) ☒ Nervous system
- b) ☐ Respiratory system
- c) ☒ Cardiovascular system
- d) ☒ hematopoietic system
- e) ☒ Enzyme system

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**60. Name the ways of the plumbum penetration in organism:**

- a) ☒ Respiratory
- b) ☒ Digestive
- c) ☐ Cutaneous
- d) ☐ Mucous membranes
- e) ☐ Hematogenous

**61. Give the definition of pesticides.**

- a. ☒ Pesticides are a series of chemicals with a particularly high biological action, intended and used in agriculture, forestry in order to prevent the action and / or control of plant or animal life, which cause direct and indirect damage to crops agricultural and animal health.
- b. ☐ Pesticides are a series of chemicals with no high biological action, intended and used in agriculture, forestry to prevent and / or combat plant or animal life, which cause direct and indirect damage to crops, and animals.
- c. ☐ Pesticides are a series of substances that do not cause direct or indirect damage to crops and animals.
- d. ☐ Pesticides are a series of chemicals used only in the synthetic chemical industry.
- e. ☐ Pesticides are a series of chemicals with a particularly high biological action, intended and used only in forestry for the purpose of preventing animal damage, and which cause direct damage to wild animals.

**62. From which language was it taken and what do the components of the word “pesticide” mean?**

- a. ☒ The term “pesticide” was taken from the English language, where “pest” means harmful insect, and the term “icide” means “to destroy, to kill”.
- b. ☐ The term “icide” was taken from the Greek, where “pest” means harmful insect, and the term “pesticide” means “to destroy, to kill”.
- c. ☐ The term “pesticide” was taken from the English language, where “pest” means “to destroy, to destroy”, and the term “icide” means harmful insect.
- d. ☐ The term “pesticides” was taken from the French language, where “pest” means harmful insect and the term “icide” means chemical ”.
- e. ☐ The term “pesticide” was taken from the English language, where “pest” is detected, and the term “icide” means “to stop”.

**63. In how many groups are pesticides classified and what are they?**

- a. ☒ I. Depending on the destination.
- b. ☒ II. Depending on the origin.
- c. ☒ III. Depending on the chemical structure.
- d. ☐ IV. Depending on the manufacturer.
- e. ☒ IV. Depending on the degree of toxicity.

**64. Depending on the destination of the pesticides into which groups are they divided?**

- a. ☒ Insecticides (pest control).
- b. ☒ Zoocides (for controlling animal pests).
- c. ☒ Rodenticides / Raticides (rodent control).
- d. ☒ Molluscocides (mollusc control).
- e. ☐ Molluscocides (pest control).

**65. Depending on the destination of the pesticides into which groups are they divided?**

- a. [\*] Nematocides (fighting nematodes).
- b. [\*] Larvicides (fighting larvae).
- c. [] Acaricides (fighting nematodes).
- d. [\*] Ovicides (destruction of eggs by insects and mites).
- e. [\*] Acaricides (mite control).

**66. Depending on the destination of the pesticides into which groups are they divided?**

- a. [\*] Algaecides (destruction of algae).
- b. [\*] Herbicides (destruction of weeds in crops).
- c. [\*] Fungicides (control of fungi that cause plant diseases).
- d. [] Acaricides (fighting nematodes).
- e. [] Molluscocides (pest control).

**67. Growth regulators (means that inhibit or stimulate plant growth processes) include:**

- a. [\*] defoliating: means of defoliating plants.
- b. [\*] desiccant: means of drying plants before harvesting.
- c. [\*] deflowering: means of removing the excessive amount of flowers.
- d. [\*] attractive: means to lure.
- e. [] repellents: means for luring.

**68. Depending on the origin of the pesticides into which groups are they divided?**

- a. [\*] Mineral origin: (salts of As, Ba, Cu, Hg, Pb) etc.
- b. [\*] Plant origin: (nicotine, veratrum, strychnine).
- c. [\*] Synthetic origin: (organophosphorus esters, organohalogenated derivatives, aromatic nitroderivatives, carbamic derivatives, phenolic compounds and organometallic compounds).
- d. [] Mineral origin: (nicotine, veratrum, strychnine) etc.
- e. [] Mineral origin: (organophosphorus esters, organohalogenated derivatives, aromatic nitroderivatives, carbamic derivatives, phenolic compounds and organometallic compounds).

**69. Depending on the chemical structure of the pesticides into which groups are they divided?**

- a. [\*] Phosphororganic pesticides
- b. [\*] Chlororganic pesticides
- c. [\*] Mercurorganic pesticides
- d. [\*] Carbamic and thiocarbamic pesticides, respectively
- e. [] Selenorganic pesticides

**70. Depending on the chemical structure of the pesticides into which groups are they divided?**

- a. [\*] Nitrophenolic pesticides
- b. [\*] Sulfur preparations
- c. [\*] Copper preparations
- d. [\*] Arsenic preparations
- e. [] Alcohol.

**71. Depending on the toxicity degree of the pesticides into which groups are they divided?**

- a. [\*] Group I: extremely toxic substances, induce deadly poisoning (lightning), LD50 <50 mg / kg, being marked with red labels.
- b. [\*] Group II: substances with a strong toxic effect, LD50: 50-200 mg / kg, being marked with green labels.
- c. [] Group III: substances with moderate toxic effect, LD50: 200-1000 mg / kg, being marked with green labels.
- d. [\*] Group IV: substances with a reduced toxic effect, LD50 > 1000 mg / kg, being marked with black labels.
- e. [\*] Group III: substances with moderate toxic effect, LD50: 200-1000 mg / kg, being marked with blue labels.

**72. What are the pathways through which the toxicant can enter the body?**

- a. [\*] Respiratory tract.
- b. [\*] The cutaneous route.
- c. [\*] Digestive tract.
- d. [] The parenteral route.
- e. [\*] Mixed route.

**73. According to the amount of toxic penetrated into the bodies, what types of intoxications can we differentiate?**

- a. [\*] Acute intoxications (mild, moderate, severe form).
- b. [\*] Subacute intoxications.
- c. [\*] Chronic intoxications (stage I, II, III).
- d. [] Acute intoxications (stage I, II, III).
- e. [] Subacute intoxications (stage I, II, III).

**74. What are the characteristics of acute pesticide poisoning?**

- a. [\*] The early period, from the penetration of the toxicant in the body, until the first intoxication signs appear.

- b. [\*] The preclinical period, for which non-specific symptoms are characteristic such as: vomiting, nausea, headache, general weakness, which can be found in other pathologies.
- c. [\*] The period of intoxication itself, has a series of specific clinical signs that are the result of the toxic's action on the body.
- d. [] The early period, for which nonspecific symptoms are characteristic such as: vomiting, nausea, headache, general weakness, which can be found in other pathologies.
- e. [] The period of intoxication itself, for which nonspecific symptoms are characteristic such as: vomiting, nausea, headache, general weakness, which can be found in other pathologies.

**75. What are the characteristics of subacute pesticide poisoning?**

- a. [\*] Depends on the amount and toxicity of the toxicant that has entered the human body.
- b. [\*] It is defined by an insignificant reaction to the action of the toxicant on the organism.
- c. [\*] Compared to the reaction of acute intoxications, the pathological process has a more mild and longer evolution.
- d. [\*] Compared to the reaction of acute intoxications, the pathological process has a more accentuated and longer evolution.
- e. [] It is defined by a significant reaction to the action of the toxicant on the organism.

**76. What are the characteristics of chronic pesticide poisoning?**

- a. [\*] Occur as a result of over time summed up effects of small and repeated doses of the toxicant on the human body.
- b. [] They occur as a result of the summation over time of the effects of high and repeated doses of the toxicant on the human body.
- c. [] They occur as a result of summing up over time the effects of small and single doses of the toxicant on the human body.
- d. [] Occur spontaneously with the action of small and repeated doses of toxic to the human body.
- e. [] Occur as a result of an accident without repeating over time.

**77. Which phosphorus-organic compounds belong to the chemical structure?**

- a. [\*] According to the chemical structure, phosphororganic compounds are ethers of phosphoric, thiophosphoric, dithiophosphoric and phosphonic acids.
- b. [] According to the chemical structure, phosphororganic compounds are alcohols.
- c. [] According to the chemical structure, phosphororganic compounds are strong bases.
- d. [] According to the chemical structure, phosphororganic compounds are chloride derivatives.
- e. [] According to the chemical structure, phosphororganic compounds are benzene derivatives.

**78. What representatives of phosphororganic compounds do you know?**

- a. [\*] The representatives of this group are: Carbofos, Fazolon, Methylnitrofos, Metafos.
- b. [] The representatives of this group are: Chlorbophos, Metichlorophos, Metamercurophos.

- c. ☐ The representatives of this group are: Arsenite, Mercury.
- d. ☐ The representatives of this group are: Trichlorophosphogem.
- e. ☐ The representatives of this group are: Phosphamidchlorate, Metaphospharsenate.

**79. For what purpose and where are phosphororganic compounds used?**

- a. [\*] Used for insecticide or acaricide purposes in agriculture, fruit growing, viticulture and forestry, with intense effects even at low doses.
- b. ☐ Used for animal killings in agriculture, fruit growing, viticulture and forestry, with intense effects even at low doses.
- c. ☐ Used for algicidal purposes in agriculture, fruit growing, viticulture and forestry, with intense effects even at low doses.
- d. ☐ Used for mycelicide purposes in agriculture, fruit growing, viticulture and forestry, with intense effects even at low doses.
- e. ☐ Used for fumigation purposes in agriculture, fruit growing, viticulture and forestry, with intense effects even at low doses.

**80. Which enzyme is primarily inhibited by organophosphorus compounds when they enter the body?**

- a. [\*] It is known that many organophosphorus compounds can inhibit both cholinesterase and other enzymes.
- b. ☐ It is known that many organophosphorus compounds can inhibit both alcohol dehydrogenase and other enzymes.
- c. ☐ It is known that many organophosphorus compounds can inhibit both synthases and other enzymes.
- d. ☐ It is known that many organophosphorus compounds can inhibit both ATPases and other enzymes.
- e. ☐ It is known that many organophosphorus compounds cannot inhibit both cholinesterase and other enzymes.

**81. What happens after acetylcholinesterase inactivation?**

- a. [\*] As a result of inactivation of acetylcholinesterase, the mediator of the Nervous System (synapse) - acetylcholine accumulates.
- b. [\*] Endogenous acetylcholine intoxication leads to disorders of nerve impulse transmission through nerve cells and ganglion synapses.
- c. ☐ Endogenous acetylcholine intoxication does not lead to disorder of nerve impulse transmission through nerve cells and ganglion synapses.
- d. ☐ As a result of inactivation of acetylcholinesterase, the mediator of the Nervous System (synapse) - dopamine accumulates.
- e. ☐ As a result of inactivation of acetylcholinesterase, the mediator of the Nervous System (synapse) - acetylcholine does not accumulate.

**82. The basic symptoms of phosphoroorganic pesticide poisoning are determined by the presence of whose effects?**

- a. [\*] Muscarinic effect.
- b. [\*] The nicotinic effect.
- c. [\*] The central action of acetylcholine.
- d. [] Neurological effect.
- e. [] Peripheral action of acetylcholine.

**83. What is the muscarinic effect (parasympathomimetic action) in organophosphorus pesticide poisoning?**

- a. [\*] Ocular effects: miosis, decreased visual acuity and accommodation disorders.
- b. [\*] Cardiovascular effects: short-term decrease in blood pressure.
- c. [\*] Effects on smooth muscles.
- d. [\*] Effects on exocrine secretion, stimulates secretion (increases the secretion of sweat, tear, salivary, bronchial, gastric, pancreatic and intestinal glands).
- e. [] Eye effects: mydriasis and increased visual acuity.

**84. What determines the nicotinic effect in organophosphorus pesticide poisoning?**

- a. [\*] Hypertension (by generalized vasoconstriction).
- b. [\*] Tachycardia (by acting on the sympathetic nodes and releasing of catecholamines from the adrenal medulla).
- c. [\*] Apnea (by reflex mechanism starting from the large pulmonary vessels), followed by polypnea (by excitation of sinocarotid receptors).
- d. [] Hypoglycemia (by releasing catecholamines).
- e. [\*] Muscle fasciculations (by action on nicotinic receptors and at the level of the neuromuscular junction): eyelid contractions, tongue contractures, neck contractions.

**85. What determines the central action in organophosphorus pesticide intoxications?**

- a. [\*] Headache.
- b. [\*] Anxiety.
- c. [\*] Vertigo.
- d. [] Drowsiness.
- e. [\*] Balance disorders.

**86. What determines the central action in organophosphorus pesticide intoxications?**

- a. [] Inhibition.
- b. [\*] Psychological disorder.

- c. [\*] Knowledge disorder.
- d. [\*] Convulsions, coma.
- e. [\*] Paralysis of the vital importance centers in the spinal bulb.

**87. Describe the clinical picture of acute intoxications with phosphororganic pesticides, the mild form.**

- a. [\*] Patient suffering from: headache, dizziness, limb weakness.
- b. [\*] Dealing with the following accusations: decreased vision, anxiety, nausea, hypersalivation, abdominal colic, diarrhea.
- c. [\*] Sufferers are worried, pupils narrowed, reaction to dim light, accommodation spasm develops, which leads to decreased visual acuity.
- d. [] Occurs without nighttime adjustment and in dimly lit rooms.
- e. [\*] Nystagmus, edema of the face, hypertranspiration occur.

**88. Describe the clinical picture of acute intoxications with phosphororganic pesticides, the mild form.**

- a. [\*] Long term consequences are breathing difficulties (predominantly in the inspiratory act), chest discomfort accompanied by respiratory failure, cough attacks.
- b. [\*] Rough breathing, dry rales are heard throughout the lung area.
- c. [\*] Cardiovascular system: tachycardia, increased BP.
- d. [\*] There is a marked decrease in erythrocyte cholinesterase activity in the blood serum.
- e. [] Cardiovascular system: bradycardia, decreased BP.

**89. Describe the clinical picture of acute intoxications with phosphororganic pesticides, the average form.**

- a. [\*] Excitation, anxiety, inadequate reactions to external stimulants, intense headache, muscle weakness are typical.
- b. [\*] The breath disorder intensifies both in the inspiratory act and in the expiratory act, breathing becomes hissing, boiling, in the lungs wet rales are heard on the entire lung area.
- c. [\*] Signs of respiratory failure (cyanosis) appear.
- d. [\*] At this stage tachycardia can turn into bradycardia, BP remains high, hypertension accompanied by chills.
- e. [] Signs of respiratory failure (cyanosis) disappear.

**90. Describe the clinical picture of acute intoxications with phosphororganic pesticides, severe form.**

- a. [\*] A condition reminiscent of pulmonary edema: boiling breathing, numerous wet rales throughout the lung area, foamy wet cough associated with hypersecretion of bronchial warts.



- b. [\*] The condition is aggravated by the intercostal muscle paralysis, breathing is based on the movement of the diaphragm and has a hiccup character.
- c. [] Short-term tachycardia changes to bradycardia, BP remains low.
- d. [\*] On this background the collaptoid state may appear: disturbed consciousness, narrowed pupils, does not react to light.
- e. [\*] Generalized seizures occur periodically. A comatose state develops.

**91. Describe the clinical picture of subacute intoxications with phosphororganic pesticides.**

- a. [\*] According to symptoms of the subacute intoxications with phosphororganic compounds, they are practically identical to acute intoxications.
- b. [\*] Subacute intoxications are less widespread compared to acute ones, an important role is played by the individual's ability to adapt and react to the body, but also by the amount and toxicity of the toxicant that has entered the human body.
- c. [\*] As with acute intoxication, the toxicant enters the body in one go, but the onset is slower.
- d. [] According to the symptomatology of subacute intoxications with phosphororganic compounds, they are practically identical to chronic intoxications.
- e. [] As with chronic intoxications, the toxicant enters the body in one go, but the onset is slower.

**92. Describe the clinical picture of chronic intoxications with phosphororganic pesticides, stage I.**

- a. [\*] There is an intense headache, predominantly in the temporal region.
- b. [\*] Dizziness, decreased memory, sleep disorders.
- c. [\*] Anorexia, nausea, general weakness.
- d. [] Sometimes causes mydriasis.
- e. [\*] Disorder of the vegeto-vascular innervation with predominance on the parasympathetic system.

**93. Describe the clinical picture of chronic intoxications with phosphororganic pesticides, stage II.**

- a. [\*] There is a gradual decrease in intellect.
- b. [\*] Short-term lipothemas may be present.
- c. [] Sometimes causes mydriasis.
- d. [] Neutrophilic leukocytosis, toxic leukocyte granulation is determined.
- e. [] It is especially found in people who work with thiophos.

**94. Describe the clinical picture of chronic intoxications with phosphororganic pesticides, stage III.**

- a. [\*] It is especially found in people who work with thiophos.
- b. [\*] Leads to toxic liver damage ,

- c. ☒ In the blood count, we can notice neutrophilic leukocytosis, toxic leukocyte granulation.
- d. ☐ There is a gradual decrease in intellect.
- e. ☐ Short-term lipothemias may be present.

**95. For what purpose are chlororganic compounds used in different branches of agriculture?**

- a. ☒ As insecticides, acaricides, in the processing of seeds, crops.
- b. ☐ As a nutrient support for crops.
- c. ☐ Not used since 1970.
- d. ☐ They were used only as chemical weapons.
- e. ☐ No answer is correct.

**96. List some representatives from the organochlorine compounds group.**

- a. ☒ Chlorobenzene.
- b. ☒ Methoxychlor.
- c. ☒ Heptachlor.
- d. ☒ Chlordane.
- e. ☐ Polyflordan.

**97. What is the specificity of chlororganic compounds?**

- a. ☒ Environment resistance.
- b. ☒ High solubility in fats and lipids.
- c. ☒ Ability to accumulate in body tissues (fat-rich tissues: adipose tissue, brain, liver, pancreas, spleen, adrenal glands, thyroid).
- a. ☐ Lack of resistance in the environment.
- d. ☐ Low solubility in fats and lipids.

**98. What is the toxic action of chlororganic complexes characterized by?**

- a. ☒ Modification of fermentation systems.
- b. ☒ Impairment of transmembrane transport of Na, K, Ca, Cl.
- c. ☒ Disorder of tissue respiration.
- d. ☐ Does not affect fermentation systems.
- e. ☐ Does not affect tissue respiration.

**99. How does Curceatov describe chlororganic compounds?**

- a. ☒ Fat-soluble non-electrolytes that are able to penetrate all the body's protective barriers.
- b. ☐ Fat-soluble electrolytes, which are able to penetrate all the protective barriers of the body.

- c. ☐ Some fat-soluble non-electrolytes, which are not able to penetrate all the protective barriers of the body.
- d. ☐ Some fat-soluble electrolytes, which are not able to penetrate all the protective barriers of the body.
- e. ☐ Water-soluble electrolytes, which are able to penetrate all the body's protective barriers.

**100. On which systems and organs do chlororganic compounds act?**

- a. [\*] Central Nervous System.
- b. [\*] Reproductive System,
- c. [\*] Parenchymal organs with necrotic and fatty degeneration.
- d. ☐ The Vascular System.
- e. ☐ Muscular System.

**101. Describe the clinical picture of acute intoxications with chlororganic pesticides.**

- a. [\*] When entering the respiratory tract, first of all, there are signs of excitation of the upper respiratory tract and damage of the lower respiratory tract (bronchi) in the form of (acute tracheobronchitis).
- b. [\*] In case of penetration through the gastrointestinal tract - dyspeptic phenomena occur (nausea, vomiting, abdominal pain, accelerated transit), developing acute gastroenterocolitis.
- c. [\*] In case of penetration of the toxicant through the skin, it is accompanied by acute inflammation, hemorrhages until tissue necrosis occurs.
- d. ☐ In case of penetration through the gastrointestinal tract - signs of excitation of the upper respiratory tract and impairment of the lower respiratory tract (bronchi) in the form of (acute tracheobronchitis) appear.
- e. ☐ In case of penetration of the toxicant through the skin, dyspeptic phenomena appears (nausea, vomiting, abdominal pain, accelerated transit), developing acute gastroenterocolitis.

**102. Describe the clinical picture of acute intoxications with chlororganic pesticides, the mild form.**

- a. [\*] Headache, vertigo.
- b. [\*] Behavioral disorders.
- c. [\*] Paresis, paresthesias of the extremities.
- d. [\*] Tremor of the eyelids and upper extremities.
- e. ☐ Vestibular disorders.

**103. Describe the clinical picture of acute intoxications with chlororganic pesticides, the average form.**

- a. [\*] Seizures of the CNS may occur, sometimes epileptiform, clonoid and comatose.

- b. [\*] Cardiovascular manifestations: cardiac pain, palpitations, dyspnea and chest pressure sensation.
- c. [\*] When large amounts of toxic enter the body, toxic-allergic myocarditis, toxic hepatitis and toxic nephritis may occur.
- d. [\*] Hematopoietic system: sometimes, with repeated penetration of the toxicant, changes in the blood count may occur in the form of hypo- and aplastic anemia.
- e. [] There are no CNS changes.

**104. Describe the clinical picture of acute intoxications with chlororganic pesticides, the severe form.**

- a. [\*] The severe form especially develops in intoxications with hexachloran or other analogous compounds.
- b. [\*] Signs of weakened peripheral nervous system may occur with the development of vegeto-sensory polyneuritis.
- c. [\*] The pathological process in such cases, diffusely affects the Nervous System with encephalopolyneuritis, which has a rather unfavorable evolution.
- d. [] The severe form does not develop in hexachloran poisoning.
- e. [] The pathological process in such cases does not diffusely affect the Nervous System.

**105. Describe the clinical picture of subacute intoxications with chlororganic pesticides.**

- a. [\*] According to symptoms are subacute intoxications with chlororganic compounds practically identical to acute intoxications.
- b. [\*] Subacute intoxications are less widespread compared to acute ones, an important role is played by the individual's ability to adapt and react to the body, but also by the amount and toxicity of the toxicant that has entered the human body.
- c. [\*] As with acute intoxication, the toxicant enters the body in one go, but the onset is slower.
- d. [] As with chronic poisoning, the toxicant enters the body in one go, but the onset is slower.
- e. [] Subacute intoxications with chlororganic compounds by symptomatology are practically identical to chronic intoxications.

**106. Describe the clinical picture of chronic intoxications with chlororganic pesticides, stage I.**

- a. [\*] It is typical to develop astheno-vegetative or astheno-organic syndrome (microorganic symptoms, which indicate the location of the pathological process in the brainstem).
- b. [\*] There are also signs of astheno-vegetative syndrome with angio-dystonic cerebral paroxysms.
- c. [\*] Sudden headache occurs, accompanied by nausea, general weakness, hypertranspiration, dizziness, pallor, accessibility, bradycardia.
- d. [] There are also signs of asthenic syndrome with anxious cerebral paroxysms.
- e. [] Suddenly miosis occurs.

**107. Describe the clinical picture of chronic intoxications with chlororganic pesticides, stage II.**

- a. [\*] In the clinical picture at this stage of the pathological process the peripheral nervous system is involved with vegeto-sensory polyneuritis or mixed form.
- b. [\*] In severe forms, diffuse involvement of the SN (encephalopolyuritis) with organic symptoms is possible.
- c. [\*] Multiple sclerotic outbreaks.
- d. [\*] Static disorders with toxic process involvement of the extrapyramidal and hypothalamic regions, of the auditory nerves, of the vegetative cervical nodules.
- e. [] Multiple necrosis outbreaks.

**108. Describe the clinical picture of chronic intoxications with chlororganic pesticides, stage III.**

- a. [\*] Nervous system disorder is accompanied by endocrine disorders (disorder of the adrenal cortex, pancreatic insulin system, thyroid hyperfunction).
- b. [\*] A special place is occupied by cardiovascular system disorders: vegetative-vascular dystonia, hypo- or hypertension, myocardial dystrophy, toxic-allergic myocarditis.
- c. [] The peripheral nervous system is not involved in the clinical picture at this stage in the pathological process.
- d. [] In severe forms, diffuse involvement of the SN (encephalopolyuritis) with organic symptoms is not possible.
- e. [] Multiple foci of necrosis.

**109. What are the characteristics of mercury-organic pesticides?**

- a. [\*] Pesticides in this group are part of the chemicals with a high toxic effect.
- b. [\*] Possessing resistance and accumulation capacity.
- c. [\*] Due to evaporation, most of them (Granozan, Mercuzan, Mercurhexane) are dangerous for people who are in contact with them.
- d. [] Pesticides in this group do not fall into the group of chemicals with a high toxic effect.
- e. [] It does not possess resistance and the ability to accumulate.

**110. Why do changes occur in the body with the predominance of Central Nervous System damage in intoxications with mercuric compounds?**

- a. [\*] When the mercuroorganic complexes enter the body, they bind with the –SH (sulfhydryc) groups of the cellular proteins, as a result of which the activity of the basic fermentative systems is disturbed, for the functioning of which the free SH (sulfhydryc) groups are necessary.
- b. [] When the mercuroorganic complexes enter the body, they do not bind with the –SH (sulfhydryc) groups of cellular proteins, as a result of which the activity of the basic fermentative systems is disturbed, for the functioning of which free SH (sulfhydryc) groups are necessary.
- c. [] When the mercuroorganic complexes enter the body, they bind with the –SH (sulfhydryc) groups of cellular proteins, as a result of which the activity of the basic fermentative systems is not disturbed, for the functioning of which free SH (sulfhydryc) groups are necessary.

- d. ☐ When the mercurioorganic complexes enter the body, they bind to the –SH (sulfhydryc) groups of cellular proteins, as a result of which the activity of the basic fermentative systems is not disturbed, for the functioning of which the related SH (sulfhydryc) groups are necessary.
- e. ☐ When the mercurioorganic complexes enter the body, they do not bind to the –SH (sulfhydryc) groups of cellular proteins, as a result of which the activity of the basic fermentative systems is not disturbed, for the functioning of which the related SH (sulfhydryc) groups are necessary. .

**111. Define the vibration.**

- a. [\*] Vibration is an oscillating movement of a solid body, performed around an equilibrium position , with different frequencies.
- b. ☐ Vibration is a single motion around an equilibrium position.
- c. ☐ Vibration is an oscillating movement of a solid body, performed without involving equilibrium positions.
- d. ☐ Vibration represents sound waves with different frequencies.
- e. ☐ Vibration is equilibrium movements.

**112. Name and explain the physical characteristics of vibration.**

- a. [\*] Frequency - the number of oscillations of a solid body in a unit of time, expressed in Hz. (1Hz corresponds to one oscillation per second)
- b. [\*] Amplitude - the maximum distance from the equilibrium position, which is measured in units of length (m, dm, cm, mm).
- c. [\*] Speed - the product of amplitude and time, which is measured in - m / s.
- d. [\*] Acceleration - the product of amplitude and time squared, which is measured in - m / s<sup>2</sup>.
- e. ☐ Acceleration - the product of frequency and time squared, which is measured in - Hz / s<sup>2</sup>.

**113. In which frequency-based groups can vibration be classified?**

- a. [\*] Very low frequency vibration - below 2 Hz.
- b. [\*] Low frequency vibration - between 2 and 20 Hz.
- c. [\*] Medium frequency vibration - between 20 and 300 Hz.
- d. [\*] High frequency vibration - between 300 and 1000 Hz, sometimes even up to 5000 Hz and Shaking.
- e. ☐ Very low frequency vibration - below 2 Hz and Shaking.

**114. Give the definition of vibration disease.**

- a. [\*] Vibration disease is an occupational disease caused by prolonged exposure (minimum 3 years) to vibrations in the workplace.
- b. ☐ Vibration disease is an occupational disease caused by prolonged exposure (minimum 30 years) to vibrations in the workplace.

- c. ☐ Vibration disease is an occupational disease caused by prolonged exposure (minimum 3 years) to household vibration.
- d. ☐ Vibration is the oscillating movements of a solid body, performed around an equilibrium position, with different frequencies.
- e. ☐ Vibration is the oscillating movements of a solid body, performed without involving equilibrium positions.

**115. Define the professional route.**

- a. [\*] The professional route is a review, a chronological presentation of all professional activities performed, the duration of those that involved significant exposures and references on working conditions.
- b. [\*] This data is mandatory to confirm or deny an occupational disease.
- c. ☐ This data is not necessary to confirm or deny an occupational disease.
- d. ☐ The professional route is a review, a chronological presentation of some professional activities performed.
- e. ☐ The professional route is a review, a chronological presentation of professional activities performed, but this data is not necessary to confirm or deny an occupational disease.

**116. How is the etiology of vibration disease, what is the main etiological factor and how should it be elucidated?**

- a. [\*] Vibration disease is characterized by a clinical polymorphism with original evolution.
- b. [\*] The main etiological factor is the vibration of different frequency, which is elucidated in the professional route.
- c. ☐ Vibration disease is not characterized by a clinical polymorphism.
- d. ☐ The main etiological factor is represented by vibrations of different frequency, which should not be elucidated in the professional route.
- e. ☐ The main etiological factor is represented by noise of different frequency, which is elucidated in the professional route.

**117. What are the factors that can install vibration disease earlier?**

- a. [\*] adaptive-compensation capacity.
- b. [\*] certain cardiovascular diseases.
- c. [\*] diabetes mellitus.
- d. [\*] smoking.
- e. ☐ old age.

**118. What are the factors that can install vibration disease earlier?**

- a. [\*] adaptive-compensation capacity.
- b. [\*] certain cardiovascular diseases.

- c. [\*] insufficiency of peripheral vascularization.
- d. [\*] young age.
- e. [] old age.

**119. What are the harmful factors present in the work environment that can trigger vibration disease earlier?**

- a. [\*] unfavorable microclimate (humidity, temperature and caloric radiation).
- b. [\*] concomitant presence of noise.
- c. [\*] cooling and the presence of cold air currents.
- d. [\*] static-dynamic loads, forced working position.
- e. [] cooling and the presence of cold air currents prevent the appearance of the disease.

**120. What are the specific manifestations of vibration disease?**

- a. [\*] affecting the locomotor and cardiovascular system.
- b. [\*] reflective disorders of the internal organs.
- c. [] minimal damage to the locomotor and cardiovascular system.
- d. [] minimal damage to internal organs.
- e. [] minimal damage to the locomotor system.

**121. What are the mechanisms underlying the onset of vibration disease?**

- a. [\*] Triggering has complicated mechanisms: neurohormonal and reflectors.
- b. [] There are only complicated mechanisms underlying the trigger: neurohormonal.
- c. [] The only triggering mechanism is the trigger: the reflectors.
- d. [] The trigger has complicated mechanisms, except for neurohormonal and reflective ones.
- e. [] There are no complicated mechanisms underlying the trigger.

**122. What will the long-term action of vibration on peripheral vibration sensitivity receptors lead to?**

- a. [\*] The long-term action of vibration on peripheral receptors of vibration sensitivity creates conditions for increased excitability of the corresponding centers.
- b. [\*] Under the action of reflective impulses in spinal neurons, sympathetic ganglia, in other vegetative formations, reticular formation of the brainstem and cortical regions, response reactions develop.
- c. [] The short-term action of vibration on peripheral receptors of vibration sensitivity creates conditions for increased excitability of the corresponding centers.
- d. [] The long-term action of vibration on peripheral receptors of very weak vibration sensitivity creates conditions for increased excitability of the corresponding centers.



e. ☐ Under the action of reflective impulses in spinal neurons, sympathetic ganglia, in other vegetative formations, reticular formation of the brainstem and cortical regions, no response reactions are perceived.

**123. Why do intense manifestations of angiospasm occur in vibration disease?**

a. [\*] As a result of the disturbances of the CNS regulatory actions on the vascular tone and, in particular, on the state of the regional circuit, intense manifestations of angiospasm appear.

b. [\*] Thus, the deeper the trepidation sensitivity disorders, the more pronounced the vascular spasm.

c. ☐ As a result of the disturbances of the CNS regulatory actions on the vascular tone and, in particular, on the state of the regional circuit, weakly pronounced manifestations of angiospasm appear.

d. ☐ The deeper the trepidation sensitivity disorders, the less pronounced the vascular spasm.

e. ☐ The short-term action of vibration on peripheral receptors of vibration sensitivity potentially increases the excitability of the corresponding centers.

**124. In vibration disease, what will mechanical irritation of the vascular intima contribute to?**

a. [\*] Mechanical irritation of the vascular intima will contribute to aggravation of spasm or atony.

b. ☐ As a result of the disturbances of the CNS regulatory actions on the vascular tone and, in particular, on the state of the regional circuit, weakly pronounced manifestations of angiospasm appear.

c. ☐ The deeper the trepidation sensitivity disorders, the less pronounced the vascular spasm.

d. ☐ The short-term action of vibration on peripheral receptors of vibration sensitivity creates conditions for increased excitability of the corresponding centers.

e. ☐ Mechanical irritation of the vascular intima will practically not contribute to the aggravation of spasm.

**125. In case of trophic disorders in vibration disease, which occur primarily in the neuromuscular and locomotor system, which anatomical region is particularly affected?**

a. [\*] Trophic disorders occur primarily in the neuromuscular and locomotor system, especially in the muscles, bones and joints of the scapular girdle.

b. ☐ Trophic disorders occur primarily in the neuromuscular and locomotor system, especially in the muscles of the small pelvis.

c. ☐ Trophic disorders occur primarily in the neuromuscular and locomotor system, especially in the muscles, bones and joints of the lower limb.

d. ☐ Trophic disorders occur primarily in the neuromuscular and locomotor system, especially in the muscles, bones and joints of the forearm.

e. ☐ Trophic disorders occur only in muscles.

**126. Next to the progressive receptivity decrease in vibration disease, what other changes are noticed?**

- a. [\*] the algic, tactile and thermal sensitivity, therefore the excitation of the trepidation centers radiates in the neighboring regions, first of all in the vaso-motor centers;
- b. [\*] condition changes in the peripheral vessels functional state;
- c. [\*] after the onset of the disease, the excitation is later transmitted to the pain and thermal sensitivity centers.
- d. [] condition changes in the central vessels functional state;
- e. [] later, after the onset of the disease, excitation is not transmitted to the algic and thermal sensitivity centers.

**127. What happens as a result of the decrease in the body's ability to adapt to vibrations?**

- a. [\*] As a result of the decrease of the adaptation possibilities of the organism and the deterioration of the peripheral and central vegetative formations, in the advanced stages of the disease the hypothalamic syndrome develops.
- b. [] As a result of the decrease of the adaptation possibilities of the organism and the deterioration of the peripheral and central vegetative formations, in the advanced stages of the disease the cerebellar syndrome develops.
- c. [] As a result of the decrease of the adaptation possibilities of the organism and the deterioration of the peripheral and central vegetative formations, in the advanced stages of the disease the bipolar syndrome develops.
- d. [] Due to the decrease of the adaptation possibilities of the organism and the deterioration of the peripheral and central vegetative formations, in the advanced stages of the disease the hypothalamic syndrome no longer develops.
- e. [] Due to the decrease of the adaptation possibilities of the organism and the deterioration of the peripheral and central vegetative formations, in the advanced stages of the disease the cerebellar syndrome no longer develops.

**128. Classify the vibration disease according to the intensity level of the pathological process.**

- a. [\*] Initial form.
- b. [\*] Medium shape.
- c. [\*] Serious form.
- d. [] Intermediate form.
- e. [] Light form.

**129. Classify the vibration disease according to the impact region.**

- a. [\*] Vibration disease caused by local vibrations.
- b. [\*] Vibration disease caused by general vibrations.
- c. [\*] Vibration disease caused by the action of general vibration and shaking.
- d. [] Vibration disease caused by local vibrations and shaking.
- e. [] Vibration disease caused by vibration and noise.

**130. Classify the vibration disease according to the intensity level of the disease caused by the local vibration.**

- a. [\*] Initial manifestations, compensated form.
- b. [\*] Moderate manifestations, undercompensated form.
- c. [\*] Pronounced manifestations, decompensated form.
- d. [] Moderate manifestations, compensated form.
- e. [] Pronounced manifestations, subcompensated form.

**131. What are the most common clinical syndromes in vibration disease?**

- a. [\*] Angiospastic.
- b. [\*] Angiodystonic.
- c. [\*] Vegetative polyneuritis.
- d. [\*] Neuritic.
- e. [] Cerebellous.

**132. What are the most common clinical syndromes in vibration disease?**

- a. [\*] Vegeto-myofascial;
- b. [\*] Diencephalic;
- c. [\*] Vestibular.
- d. [\*] Neuritic.
- e. [] Cerebellous.

**133. What are the clinical features of the vibration disease caused by the action of local vibration?**

- a. [] The disease develops very quickly, practically spontaneously.
- b. [\*] The most important clinical aspect is the peripheral vascular syndrome with pronounced angiospasm.
- c. [\*] Often the disease proceeds latently over a period of time.
- d. [\*] The latent period can differ from a few months to several years.
- e. [\*] The duration depends on the functional state of the organism, the state of the compensatory-adaptive mechanisms, the physical characteristics of the vibration and its combination with other harmful factors.

**134. What are the peripheral syndromes in the compensated form of the local vibration caused vibration disease?**

- a. [\*] Angiospastic with rare angiospasm.
- b. [\*] Angiodystonic.

- c. [\*] Sensory (vegetative-sensory).
- d. [\*] Polyneuropathy of the hands.
- e. [] Angiospastic with frequent angiospasm.

**135. What are the compensated symptoms of the vibration disease caused by the action of local vibration?**

- a. [\*] Spontaneous finger whitening, rare, which is observed when washing with cold water and total overcooling;
- b. [\*] Cold sensations and delayed restoration of finger skin temperature after exposure to cold;
- c. [\*] Nocturnal or resting hand pain. After 10-15 minutes from the beginning of work, the pain usually disappears;
- d. [\*] Slight disorder of the sensitivity of the terminal phalanges, paresthesias, an unaccented decrease in vibration sensitivity and change in hair tone;
- e. [] Mandatory, severe CNS functional disorders.

**136. What are peripheral syndromes in the subcompensated form of local vibration caused vibration disease?**

- a. [\*] Peripheral angiospastic.
- b. [\*] Sensory (vegetative-sensory).
- c. [] Severe vasomotor disorders.
- d. [] Accentuated trophic disorders.
- e. [] Mandatory, severe CNS functional disorders.

**137. What are the symptoms of the undercompensated form of local vibration caused vibration disease?**

- a. [\*] Indisposition, asthenia.
- b. [\*] Vegetative dystonia with unlocated headache, mild dizziness.
- c. [\*] Sleep disorder and increased irritability.
- d. [\*] Some patients experience pain in the precordial region, palpitations, sweating.
- e. [] Some patients experience specific pain in the occipital region.

**138. What are the changes in the undercompensated form of local vibration caused vibration disease?**

- a. [\*] Painful phenomena and stable paresthesias;
- b. [\*] Changing the tone of capillaries and large vessels.
- c. [\*] Sleep disorder and increased irritability.
- d. [] Some patients experience specific pain in the occipital region.
- e. [\*] Vegetative dystonia with unlocated headache, mild dizziness.

**139. What are the peripheral syndromes in the decompensated form of local vibration caused vibration disease?**

- a. [\*] Occurs in the form of sensory-motor polyneuropathy.
- b. [\*] In the advanced stages of the disease, vegetative-vascular disorders may have a generalized character.
- c. [] In the advanced stages of the disease, vegetative-vascular disorders may have a localized character.
- d. [\*] Accentuated vasomotor and trophic disorders.
- e. [] Insignificant vasomotor and trophic disorders.

**140. What are the symptoms in the decompensated form of local vibration caused vibration disease?**

- a. [\*] Peripheral angiospasm attacks become more frequent, the intensity of paresthesias and pain sensations increases, sensitivity disorders worsen, vibration sensitivity is suddenly abolished;
- b. [\*] Most patients have asthenia and vegetative-vascular dystonia;
- c. [\*] Hypertension, myocardial dystrophy, degenerative-dystrophic changes of the scapular belt, less often of the spine;
- d. [\*] This phase is distinguished by a torpid evolution, recovery is incomplete, even when interrupting the contact with vibration and application of treatment.
- e. [] This phase is distinguished by a rapid evolution, the recovery is complete, even in case of treatment discontinuation.

**141. In which groups can the changes induced by the general vibration caused vibration disease be separated?**

- a. [\*] mechanics.
- b. [\*] physiological.
- c. [\*] psychological.
- d. [] physical-physiological.
- e. [] mechanical-physical.

**142. What is absolutely necessary in order to establish the connection between the health status of the worker and the occupational risk factors to which he was exposed?**

- a. [\*] In order to establish the connection between the health status of the worker and the occupational risk factors to which he has been exposed, it is absolutely necessary to collect the occupational route.
- b. [] In order to establish the connection between the health status of the worker and the occupational risk factors to which he has been exposed, it is absolutely necessary to question the employer.

c. ☐ In order to establish the connection between the health status of the worker and the occupational risk factors to which he has been exposed, it is absolutely necessary to involve the labor inspectorate.

d. ☐ In order to establish the connection between the health status of the worker and the occupational risk factors to which he has been exposed, it is absolutely necessary to collect the clinical history.

e. ☐ In order to establish the connection between the health status of the worker and the occupational risk factors to which he has been exposed, it is absolutely necessary to perform the general clinical examination.

**143. What are the specific syndromes in the compensated form of the vibration disease caused by the action of the general vibration?**

a. [\*] Angiodystonic syndrome (cerebral or peripheral).

b. [\*] Vegetative-vestibular syndrome.

c. [\*] Sensory syndrome.

d. ☐ Febrile syndrome.

e. ☐ Anemic syndrome

**144. What is the clinic of vibration disease in the compensated form of vibration disease caused by the action of general vibration?**

a. [\*] Peripheral angiodystonic syndrome is characterized by paresthesias and mild leg pain associated with muscle cramps.

b. [\*] There is also acrocyanosis, hyperhidrosis, hypothermia in the feet and hands, a spastic-atonal state of the nail bed capillaries.

c. ☐ Cerebral angiodystonic syndrome is manifested with paresthesias and mild pain in the legs associated with muscle cramps.

d. [\*] The vegetative-vestibular syndrome occurs with dynamic ataxia, these patients gradually lose the precision of movements.

e. [\*] Sensory syndrome occurs with pain in the lower extremities, numbness, sometimes burning sensation in the legs.

**145. What are the specific syndromes in the undercompensated form of vibration disease caused by the action of general vibration?**

a. [\*] Angiodystonic syndrome.

b. [\*] Sensory syndrome.

c. [\*] Polyneuropathy of the lower extremities.

b. ☐ Febrile syndrome.

c. ☐ Anemic syndrome

**146. What are the clinical aspects of vibration disease in the undercompensated form of vibration disease caused by the action of general vibration?**

- a. [\*] Sensory syndrome (polyneuropathy of the lower extremities) in the lower and upper extremities has sensory and vegetative-trophic disorders.
- b. [\*] The general vibration leads to direct microtraumatic effects on the spine, the degeneration of the intervertebral disc, developing the vertebrogenic neurological syndrome, which primarily takes place in the lumbosacral level.
- c. [\*] Root changes continue by developing chronic lumbosacral radiculopathy, characterized by severe pain syndrome and postural myotonia.
- d. [\*] L4 and L5 roots are most often affected. The development of movement disorders, up to paresis, takes place more often in the innervation zone of the tibial nerve.
- e. [] Cerebral angiodystonic syndrome is manifested by paresthesias and mild pain in the legs in association with muscle cramps.

**147. What are the clinical aspects of vibration disease in the undercompensated form caused by the action of general vibration?**

- a. [\*] Radiculopolyuropathy occurs on the background of degenerative-dystrophic changes in the spine as osteochondrosis, deforming spondylosis and lumbar osteoporosis.
- a. [\*] Angiodystonic syndrome in the undercompensated form of vibration disease the general form specifically occurs with paresthesias and severe pain in the legs associated with muscle cramps.
- b. [\*] There is marked acrocyanosis, hyperhidrosis, hypothermia in the feet and hands.
- c. [\*] Cerebral angiodystonic syndrome occurs with diffuse persistent headache complaints.
- b. [] Cerebral angiodystonic syndrome occurs with paresthesias and mild leg pain associated with muscle cramps.

**148. What are the specific syndromes in the decompensated form of vibration disease caused by the action of general vibration?**

- a. [\*] Sensorimotor polyneuropathy syndrome.
- b. [\*] Discirculatory encephalopathy syndrome in combination with peripheral polyneuropathy (encephalopolyneuropathy syndrome).
- b. [] Febrile syndrome.
- c. [] Anemic syndrome.
- d. [] Cerebral angiodystonic syndrome is manifested by paresthesias and mild leg pain associated with muscle cramps.

**149. What are the clinical aspects of vibration disease in the decompensated form caused by general vibration?**

- a. [\*] Sensorimotor polyneuropathy syndrome is clinically presented with paresis and paresthesias in the lower limbs, associated with persistent lower limb edema.
- b. [\*] The pain sensations in the legs become persistent and there is an accentuated weakness feeling with increased local sensitivity from the beginning. This creates a great difficulty for the patients, later it becomes low and can lead to local trauma.

c. ☐ Dispirulatory encephalopathy syndrome is manifested by paresthesias and mild leg pain associated with muscle cramps.

a. [\*] Peripheral polyneuropathy, in the decompensated form of vibrational disease caused by the action of general vibration, is usually manifested bilaterally, symptoms include numbness, paresthesia, burning sensation, vibration in the legs, tingling sensation, severe hyperesthesia and pain.

b. ☐ The pain may be superficial, it is often more intense during the day.

**150. What is specific for the vibration disease caused by the combined action of vibration and shaking?**

a. [\*] One of the main syndromes of this pathology is the vegetative-vestibular syndrome, which is manifested by dizziness, headache and nausea.

b. ☐ Most patients have an increased vestibular irritability.

c. [\*] This type of vibration disease is often associated with cerebral angiodystonia.

d. [\*] Digestive glands dysfunction, disturbance of gastric secretion can be caused by regulatory defects, by ptosis of the abdominal organs with irritation of the solar plexus, which develops because of the continuous shaking.

e. [\*] Patients who seek medical attention with these symptoms must be checked for exposure to general vibration and shaking at work, so the occupational path will be documented and analyzed.

**151. In order to establish a positive diagnosis in vibration disease, what is the most important aspect to establish?**

a. [\*] In order to establish the clinical diagnosis, it is mandatory to document the professional route with the detailing of the professional risk factors evaluated for each job where the suspect has been involved in the occupational disease.

b. ☐ In order to establish the clinical diagnosis, it is mandatory to establish the worker's way of life.

c. ☐ In order to establish the clinical diagnosis, it is mandatory to establish the previously known diseases.

d. ☐ It is not mandatory to document the professional route to establish the clinical diagnosis.

e. ☐ In order to establish the clinical diagnosis, it is mandatory to establish the employer's opinion on the occupational risk factors evaluated for each job where the suspect has been involved in the occupational disease.

**152. What paraclinical examinations are needed to establish the diagnosis of vibration disease?**

a. [\*] Evaluation of the clenching fist force with the dynamometer.

a. [\*] Steniotomy for the detection of neurosensory disorders.

b. [\*] Local contact thermometry.

c. [\*] Capillaroscopy of the nail fold.

d. ☐ Contrast-enhanced radiography.

**153. What paraclinical examinations are needed to establish the diagnosis of vibration disease?**



- a. ☐ Contrast-enhanced radiography.
- b. ☒ Blood tests.
- c. ☒ Comparative radiography of the hands.
- d. ☒ Radiography of the spine.
- e. ☒ Blood pressure measurement with photoplethysmography.

**154. What paraclinical examinations are needed to establish the vibration disease diagnosis?**

- a. ☐ Hot water immersion test.
- b. ☒ Cold water immersion test.
- c. ☒ Cold challenge test.
- d. ☒ Infrared thermography.
- e. ☒ Electromyography.

**155. With which diseases is the differential diagnosis of vibration disease made?**

- a. ☒ Primary Raynaud's syndrome (Raynaud's disease).
- b. ☒ Secondary Raynaud's syndrome.
- c. ☒ The Raynaud phenomenon.
- d. ☒ Syringomyelia.
- e. ☐ Bone tuberculosis.

**156. With which diseases is the differential diagnosis of vibration disease made?**

- a. ☒ Secondary Raynaud's syndrome.
- b. ☐ Meningitis.
- c. ☒ The Raynaud phenomenon.
- d. ☒ Polyneuropathy.
- e. ☒ Periarthritis.

**157. What is the prognosis of a patient diagnosed with vibration disease and what can influence it?**

- a. ☒ The prognosis is generally good, even in the absence of sustained treatment.
- b. ☒ The prognosis is negatively influenced by young age, smoking, diabetes, coexistence of other vascular diseases and long exposure to high frequency vibrations.
- c. ☐ The prognosis is generally unfavorable, even in the absence of sustained treatment.
- d. ☐ The prognosis is positively influenced by young age, smoking, diabetes, coexistence of other vascular diseases and long duration of exposure to high frequency vibrations.
- e. ☐ The prognosis is unpredictable.

**158. What is the treatment tactic in vibration disease?**

- a. [\*] reducing the clinical manifestations.
- b. [\*] reducing the intensity of the pain.
- c. [\*] improving the nervous activity.
- d. [\*] reducing the vasospasm.
- e. [] inducing vasospasm.

**159. What are the peripheral vasodilators used in the treatment of vibration disease?**

- a. [\*] Pentoxifylline 2% - 5 ml solution for injection, administered as an intravenous infusion in 150,0 ml of 0.9% sodium chloride solution over 10 days.
- b. [\*] Vincamine solution for injection of 7.5 mg / ml 2 ml, intramuscular administration, 1-2 ampoules / day (15-30 mg), in courses of 10-30 days, separated by breaks of 10-15 days.
- c. [\*] Mildronate 0.5g / 5ml solution for injection and 500 mg capsules, intravenous administration of 5 ml once daily for 10 days, then switch to oral administration, 500 mg capsules, one capsule 2-3 times a day for 20 days.
- d. [] Tenoxicam (artoxan) 20 mg in 2 ml ampoules, intramuscular administration of 20 mg per day for 7 days.
- e. [] Meloxicam 7.5 mg tablets, one tablet twice a day for 7 days.

**160. What non-steroidal anti-inflammatory drugs are used in the treatment of vibration disease?**

- a. [\*] Tenoxicam (artoxan) 20 mg in 2 ml ampoules, intramuscular administration of 20 mg per day for 7 days.
- b. [\*] Meloxicam tablets 7.5 mg, one tablet twice a day for 7 days.
- c. [\*] Lornoxicam (xefocam) tablets 8 mg, one tablet twice a day for 7 days.
- d. [\*] Diclofenac sodium (admiral) 75 mg in 3.0 ml ampoules, administered intramuscularly or as a solution for infusion, once daily for 7 days.
- e. [] Mildronate 0.5g / 5ml solution for injection and 500 mg capsules, intravenous administration of 5 ml once daily for 10 days, then switch to oral administration, 500 mg capsules, one capsule 2-3 times a day for 20 days.