



**MEDICAL UNIVERSITY – PLOVDIV**  
**Second Department of Internal Diseases**  
*Section of Occupational Diseases and Toxicology*

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**Syllabus in**  
***OCCUPATIONAL DISEASES AND TOXICOLOGY***

**for**  
**Students-3<sup>rd</sup> Course Specialty “Medicine”**  
**Faculty of Medicine, Medical University of Plovdiv**  
**Academic Year 2019/2020**

**OCCUPATIONAL DISEASES**

1. Occupational diseases – definition, classification, list of occupational diseases. Main diagnostic principles, treatment, expertise and medical prophylaxis.
2. Occupational disease and occupational accident. Expertise of occupational diseases – principles, registration procedures, legal outcomes.
3. Pneumoconiosis – classification, etiology, pathogenesis. Silicosis – clinical manifestations, diagnosis, differential diagnosis, treatment, medical expertise.
4. Silicatoses: asbestosis, talcosis, kaolinosis – etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, medical expertise.
5. Coal worker’s pneumoconiosis – etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, medical expertise.
6. Occupational chronic bronchitis – classification, etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, medical diagnosis criteria for occupational diagnosis, treatment, medical expertise.
7. Occupational bronchial asthma. Bisinosis. Etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, medical diagnosis criteria, treatment, medical expertise.

8. Hypersensitivity pneumonitis - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
9. Occupational intoxication with irritant gasses (fluorine, hydrogen fluoride, chlorine, hydrogen chloride or sulfide, ammonia, sulfur dioxide). Etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
10. Occupational intoxications with nitrogen oxides – etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
11. Occupational intoxication with carbon monoxide - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
12. Occupational intoxications with non-organic lead compounds (chronic saturnism) - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
13. Occupational intoxications with organic lead compounds (tetraethyl lead) - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
14. Occupational intoxications with non-organic mercury compounds (mercurialism) - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
15. Occupational intoxications with non-organic manganese compounds - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
16. Occupational intoxications with cadmium compounds - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
17. Occupational intoxications with arsenic compounds - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
18. Occupational intoxications with chromium and nickel compounds - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
19. Occupational intoxications with organic solvents: petrol - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.

20. Occupational intoxications with benzene and its compounds (xylene, styrene, toluene) - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
21. Occupational intoxications with nitro- and amino-benzenes - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
22. Occupational intoxications with carbon disulfide - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
23. Occupational intoxications with monomers of synthetic resins and plastics - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
24. Acute and chronic intoxications with pesticides – classification, pathogenesis, specific toxicity, clinical manifestations of the most common intoxications in medical practice (organophosphate, chlorinated pesticides, carbamates, dithiocarbamates), occupational risk, diagnostic and therapeutic algorithm.
25. Lateral and medial epicondylitis - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
26. Tendomyositis of the extrinsic hand extensor muscles - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
27. De Quervain's disease - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
28. Stenosing flexor tenosynovitis (trigger finger) - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
29. Humeroscapular periarthritis - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise.
30. Occupational bone and joint diseases - etiology, pathogenesis, clinical manifestations, criteria for occupational diagnosis, treatment, medical expertise.
31. Occupational radiculopathies - etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, medical expertise.

32. Occupational distal autonomic neuropathy of the upper limbs - etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, medical expertise.
33. Mononeuropathies due to median or ulnar nerve entrapment in carpal or cubital tunnel syndromes or in Guyon's canal syndrome - etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, medical expertise.
34. Hand-arm vibration disease - etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, medical expertise.
35. Whole-body vibration disease - etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, medical expertise.
36. Occupational noise-induced hearing loss - etiology, pathogenesis, clinical manifestations, diagnosis, treatment, medical expertise and prophylaxis. Health effects of exposure to ultrasound and infrasound.
37. Occupational skin diseases - etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, medical expertise.
38. Occupational neoplasms - etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, criteria for occupational diagnosis, treatment, medical expertise.
39. Occupational diseases due to biological risk factors - etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, criteria for occupational diagnosis, treatment, medical expertise.

## **TOXICOLOGY**

40. Pathogenesis of intoxications – toxicokinetic mechanisms.
41. Treatment methods of acute intoxications – unified therapeutic scheme, principles, means and methods of poison decontamination at the site of entry, methods for blood depuration (hemodepuration).
42. Antidote detoxification.

43. Acute toxic respiratory injuries.
44. Acute barbiturate intoxications.
45. Acute intoxications with benzodiazepines.
46. Acute intoxications with antidepressants
47. Acute intoxications with narcotics.
48. Acute intoxications with atropine.
49. Acute alcohol intoxications – ethyl, methyl
50. Acute intoxications with ethylene glycol
51. Acute intoxications with tetrachloromethane
52. Acute intoxications with quinine
53. Acute intoxications with antipyretics – aspirin, paracetamol
54. Acute intoxications with cyanide compounds
55. Acute intoxications with digitalis preparations.
56. Snake poison intoxications.
57. Phalloid mushroom intoxications
58. Muscarinic and mycoatropic mushroom intoxications.
59. Acute alkaline and acidic intoxications
60. Anaphylactic shock – definition, etiology, pathogenesis, types, clinical manifestations, diagnostic and therapeutic algorithms.

**Recommended literature:**

1. Occupational diseases. V. Nestorova, Z. Stoyneva, G. Prakova, Eds. MU Prof. Paraskev Stoyanov, Varna, 2020, 182.
2. Textbook on occupational diseases. Sofia, Ralkolober, 2010, 104.

3. Occupational diseases. In: Hygiene. Vol II. Occupational medicine. Industrial hygiene. D. Tsvetkov, Ed. FLAT Ltd., Sofia, 2019. 704.
4. Dermendzhiev S., V. Bozhilov, S. Krasteva-Zapryanova, M. Kumcheva. Diagnostic and therapeutic algorithms of acute poisonings and toxoallergic reactions, Plovdiv 2019.
5. Toxicokinetics, toxicodynamics and metabolism in acute exogenous poisoning - lecture. /Sharepoint/ Prof. S. Dermendzhiev, MD, PhD, Prof. Z. Stoyneva MD, PhD.
6. Heavy metals poisoning – lecture. /Sharepoint/ Prof. Z. Stoyneva MD, PhD.
7. Occupational diseases introduction – lecture. /Sharepoint/ Prof. Z. Stoyneva MD, PhD.
8. Organic solvents poisoning – lecture /Sharepoint/ Prof. Z. Stoyneva MD, PhD.
9. Pesticides and plastics poisoning – lecture. /Sharepoint/ Prof. Z. Stoyneva MD, PhD.
10. Hand-Arm vibration disease background. Test on the topic. Clinical case-tutorial /Sharepoint and Teams/ assistant professors N. Dimitrova MD and A. Dimitrov MD.
11. Occupational diseases background. Test on the topic - tutorial. /Sharepoint and Teams/ Assistant professors N. Dimitrova MD and A. Dimitrov MD.
12. Intoxications with plastic (vinyl chloride or polyvinyl chloride) background. Test on the topic – tutorial. /Sharepoint and Teams/ Assistant professors N. Dimitrova, MD and A. Dimitrov MD.
13. Cumulative trauma disorders background. Test on carpal tunnel syndrome - tutorial /Sharepoint and Teams/. Assistant professors N. Dimitrova, MD and A. Dimitrov, MD.
14. Occupational respiratory diseases of the lungs background. Test on the topic. /Sharepoint and Teams/ Assistant professors N. Dimitrova, MD and A. Dimitrov, MD.