

## Pathology for physical therapists.

1. Pathology in clinical practice (biopsy, techniques of pathology, autopsy).
2. Diseases and its causes.
3. Necrosis, apoptosis, atrophy, hypoplasia, aplasia.
4. Inflammation (general features, macroscopic and microscopic appearance, mediators of inflammation).
5. Classification of inflammation (acute and chronic, non-specific (non-granulomatous) and granulomatous).
6. Regeneration and repair.
7. Immune system and immunity (innate (non-specific) and adaptive (specific)) incl. implications for therapists).
8. Disorders of the immune system (hypersensitivity reactions, autoimmune diseases).
9. Immunodeficiencies (primary and secondary).
10. Pathology of infectious diseases (infectious agents, local and systemic infection, transmission of the diseases, nosocomial infections and clinical implications).
11. Respiratory tract infections, skin infections, GIT infections, dental caries, STDs, childhood viral infections, CNS infections.
12. Carcinogenesis and neoplasia (definitions, molecular basis of cancer, composition of tumors).
13. Classification of tumors (according to biological behavior, histogenetic classification). Differentiation and grading of tumors. Metastases. Risk factors of cancer and genetic predisposition to cancer).
14. Nonhereditary predisposition to cancer, dysplasia/intraepithelial neoplasia. Epithelial and mesenchymal tumors.
15. Neuroectodermal tumors, germ cell tumors. Diagnosis of neoplasias. Antineoplastic treatment modalities. Paraneoplastic syndromes.
16. Pathology of the lymphatic system (lymphadenitis, lymphadenopathy, lymphedema).
17. Hematological disorders incl. implications for the therapists.
18. Hematological diseases (lymphomas and leukemias).
19. Transplantation (types of transplantation – overview, posttransplantation complications, organ transplantation and exercise, activity, hematopoietic cell transplantations, GVHD, incl. implications for the therapist).
20. Cardiovascular diseases incl. implication for therapists (clinical signs, heart failure, ischemic heart disease).
21. Myocarditis, cardiomyopathies, arrhythmias, valvular heart disease, congenital cardiovascular diseases.
22. Atherosclerosis. Aneurysms. Hypertension.
23. Vasculitis. Thrombosis. Disseminated intravascular coagulation. Tumors of the cardiovascular system.
24. Respiratory system (signs and symptoms of pulmonary diseases, etiology of respiratory diseases).
25. Infections of upper and lower respiratory tract. Atypical pneumonias.
26. Obstructive and restrictive pulmonary diseases.
27. Pulmonary edema, atelectasis and collapse of the lungs. ARDS. Pneumoconioses. Pulmonary embolism. Pulmonary hypertension.
28. Tumors of the lung and complications of lung cancer.

29. Signs and symptoms of diseases of gastrointestinal tract. Pathology of salivary glands. Diseases of the stomach.
30. Diseases of the intestine (malabsorption, infections, IBDs, colorectal cancer, appendicitis).
31. Pathology of the pancreas (acute and chronic pancreatitis, cystic fibrosis, pancreatic tumors).
32. Pathology of the liver and biliary system (signs and symptoms of liver diseases, acute liver injury, viral hepatitis, chronic liver diseases, liver cirrhosis, tumors of the liver, diseases of the gall bladder and bile ducts).
33. Pathology of the renal and urologic systems (signs and symptoms of renal/urinary tract problems, inborn disorders, esp. renal cystic diseases, renal calculi, urinary tract infections incl. pyelonephritis).
34. Chronic kidney diseases - overview, renal failure, signs and complications, implications for the therapist. Dialysis.
35. Renal cancer, esp. renal cell carcinoma, Wilms tumor, implications for the therapist
36. Disorders of the bladder and urethra, incl. neurogenic bladder disorders, cancer. Urinary incontinence, implications for the therapist.
37. Prostatitis, benign prostatic hyperplasia. Prostate cancer.
38. Disorders of the testes: inflammation, testicular torsion, testicular cancer. Penile disorders incl. erectile dysfunction.
39. Menopause, symptoms and consequences, implications for the therapist. Pelvic inflammatory disease, endometriosis. Abnormal menstruation cycle, overview of causes. Pelvic floor disorders.
40. Ovarian cystic disease, ovarian cancer
41. Tumors of the uterine body (endometrial cancer, leiomyoma/fibroid). Cervical cancer incl. precursor/precancerous lesions.
42. Benign breast conditions. Breast cancer – overview, therapy, implications for the therapist.
43. Signs and symptoms of endocrine diseases. Hyper- and hypofunction of the pituitary. Hyper- and hypofunction of adrenals.
44. Hyper- and hypothyroidism. Goitre. Thyroid tumors. Hyper- and hypo parathyroidism.
45. Tumors of the endocrine pancreas. Diabetes mellitus.
46. Pathology of the skin (clinical signs of dermatological diseases, eczema, infections of the skin, bullous disorders of the skin, skin tumors).
47. CNS trauma. Brain edema. Spinal cord injuries. Intervertebral disc prolapse. Hydrocephalus. Stroke (clinical presentation, pathogenesis and predisposing factors).
48. CNS infections. Demyelinating conditions. Metabolic disorders.
49. Epilepsy. Congenital abnormalities of the CNS. Neurodegenerative disorders. Dementia.
50. CNS tumors. Peripheral nerve disorders.
51. Osteoporosis. Rickets and osteomalacia. Hyperparathyroidism and bones. Moller-Barlow disease. Paget disease.
52. Osteomyelitis. Inherited diseases of the skeletal system. Bone and soft tissue tumors.
53. Osteoarthritis. Rheumatoid arthritis. Spondylarthropathies. Infective arthritis. Rheumatic fever. Gout.
54. Connective tissue diseases, systemic.
55. Classification of neuromuscular disorders. Neurogenic disorders (motor neuron diseases, radiculopathies, peripheral nerve disorders). Disorders of neuromuscular transmission.
56. Progressive and congenital muscular dystrophies. Muscle biopsy.
57. Congenital structural myopathies. Inflammatory myopathies. Myotonia. Malignant hyperpyrexia. Glycogenosis.