

**STATE ESTABLISHMENT “DNIPROPETROVSK MEDICAL ACADEMY OF  
MINISTRY OF HEALTH OF UKRAINE”  
Chair of physical rehabilitation, sport medicine and valeology**

**«Is confirmed»**

At methodical meeting of physical  
rehabilitation, sports medicine and  
valeology chair  
\_\_\_\_\_ (the chair name)

**The head of the chair**

\_\_\_\_\_ Nekhanevich O. B.  
«\_\_» \_\_\_\_\_ 20 p.

**METHODICAL INSTRUCTIONS**

TO STUDENTS OF IV course medical faculty

FOR INDEPENDENT WORK

BY PREPARATION FOR THE PRACTICAL TRAINING

**MODULE № 1: PHYSICAL REHABILITATION, SPORT MEDICINE**

**Thematic module 1: Physical rehabilitation**

***Theme № 7: The essentials of physical rehabilitation.***

## MODULE I. PHYSICAL REHABILITATION, SPORT MEDICINE

### Thematic module 2: physical rehabilitation

#### TEMA № 7. *The essentials of physical rehabilitation*

**1. Theme urgency:**

Physical rehabilitation is a clinical science studies how to use physical activity for complex therapy of diseases and prevention of complications and re-injury. It improves the quality of life for recurring persons. Forged prolonged immobility during illness, injury and different impairments causes constant complications. In-time and individualized physical rehabilitation may promote the compensation of lost functions and prevent dystrophic changes during acute period of illness. This method doesn't need much financial resources, in compare to drug therapy. That is why it is important to know to the physician.

**1. Theme duration:** 2 hours.

**2. The educational aim:** to find out the basics of physical rehabilitation, to marc its pros and cons, to estimate the causes of its nessecerity.

**Concrete aims:**

**To know:**

- The aim of physical rehabilitation;
- Te mechanism of its effect;
- Moving activity moods;
- Main principles of dosage of physical exertion;
- Indications and contraindications to physical rehabilitation;
- The effect control of physical rehabilitation;
- Medical documents

**To be able:**

- To estimate the beginning level of functional state of an organism;
- To estimate the physical development and working capacity specialities;
- To evaluate clinical and lab data;
- To choose the correct rehabilitation;
- Monitor the rehabilitation proses;
- Make clinical interpretation and conclusion on treatment.

**To develop practical skills:**

- Self-holding antropometric study of patient.
- Self-holding functional state estimation.
- Correctly choose the physical rehabilitation methods;
- Make the monitoring of physical rehabilitation;
- Work with medical documents.

**3. Basic knowledge, skills (interdisciplinary integration) – (table 4.1):**

Table 4.1

The names of previous disciplines	Practical skills
Normal physiology	To be able to registrate main physiologic features, to know the loading test methodic.
Pathologic physiology	To define the development process of prepathologic and pathologic organic changes, non-adequate physical exertion impact
Propedeutics of internal disease	To take blood pressure, heart rate, describe pulsus. To be able to take electrocardiography, to hold the loading test. To evaluate the medical data.
Pediatric Propedeutics	To know the specifics of physical development in children

	according to different age.
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#### 4. Students advice.

##### 5.1 Theoretic questions:

1. General knowledge about physical rehabilitation. Its kinds, aims and principles.
2. The definition, basics and aims of physical rehabilitation.
3. Remedy gymnastics as the main method of PR.
4. Clinical characteristics of remedy gymnastics.
5. The mechanism of remedy gymnastics.
6. Indications and contraindications to remedy gymnastics.
7. The main goals of remedy gymnastics.
8. Means forms and methods of remedy gymnastics.
9. Methodical principles of remedy gymnastics.
10. The exercises of remedy gymnastics.
11. The periods of remedy gymnastics and their aims.
12. The estimation of remedy gymnastics efficiency.

##### 5.2. Theme content:

№ з/п	term	definition
1.	<b>Rehabilitation</b>	The recovery of health, functions and functional state of an organism or its parts.
2.	<b>Physical rehabilitation</b>	The part of medical science, that includes knowledge about methods of physical culture and other physical features of remedy to improve health quicker and maximal early work and social abilities recovery.
3.	<b>Remedy gymnastics</b>	It is a remedy methodic that uses physical exercises to improve the recovery process, the quality of life and physical work capacity, as well as preventing or liquidation of pathologic changes.

##### 5.2 Self-control materials:

###### 1) self-control questions:

1. Determination of physical rehabilitation (PR), its general principles, periods and stages. Active, passive and psychological ways FR.
2. Therapeutic physical training (gymnastics) as the primary means of EF, especially the method of physical therapy, basic and advanced features gymnastics, forms, methods and methodological principles of gymnastics.
3. General indications and contraindications for the purpose of therapy.
4. Mechanisms of therapeutic action of exercise. The classification exercise. Basic principles of selection and dosage of exercise.
5. Modes of motor activity in inpatient, outpatient and sanatorium rehabilitation stages, their objectives and content depending on the period of therapy.
6. Features charting and oriented complexes hygienic and therapeutic exercises.
7. Physical rehabilitation including tolerance to physical exertion. Physical state classes and their features.

**2) Tests:**

1) Physical rehabilitation is a complex of measures aimed at restoring person's health and capacity for work:

- A.\* By means of medical and physical therapies,
- B. By means of physical culture and other physical factors,
- C. By means and methods of physiotherapy,
- D. By means of balneotherapy and physiotherapy,
- E. By means of physical education and sports.

2) Exercise therapy as a method of physical rehabilitation is:

- A. \*Active, functional, non-specific, pathogenetic, training therapy,
- B. Active, biomechanical, neurohumoral specific therapy,
- C. Passive, preventive, non-specific, training therapy,
- D. Passive, symptomatic, specific, biomechanical therapy,
- E. Passive, symptomatic, specific, training therapy.

**literature:**

***the main***

1. Remedial gymnastics and sport medicine: textbook/ Klapchuk V.V., Dsiak G.V., Mutavov V.I.; red. Klapchuk V.V., Dsiak G.V. – K.: Zdorov'e, 1995. – 312 p.
2. Remedial gymnastics and sport medicine: Tests for knowlage control in students of medical and stomatological faculties of universitie IY level of acreditation / Abramov B.B., Klapchuk B.B., Magl'ovanuy A.V., Smirnova O.L.,; red. Ph. Klapchuk V.V., Ph. Magl'ovanuy A.V. – Dnipropetrovsk: medical academy, 2006. – 124 p.
3. Remedial gymnastics and sport medicine (Lections) / Abramov B.B., Klapchuk V.V Smirnova O.L.,; red. Ph. Klapchuk V.V.,– Dnipropetrovsk: medical academy, 2006. – 179 p
4. Medical control in physical training and sports: medical recommendations for students of medical and stomatological faculties of universitie IY level of acreditation / V.S. Sokolovskyy, N.A. Romanova, V.S. Vladova, I.I. Bondarev. – Odessa: osmu, 2001. – 93p.
5. Sport medicine. textbook / Makarova G.A. – M.: Soviet sport, 2003. – 480 p.
6. Textbook «Remedial gymnastics and medical control» red. Epifanova and G. L. Apanasenko – p.14-16, 25-37.
7. Functional tests in sport medicine (methodical recomendations) /Mychaluk E. L. –Kyiv. –2005. – 37p.

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The head of the cathedra, Phd. \_\_\_\_\_ O.B.Nekhanevich

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