

SYLLABUS

General medical training (ophthalmology, neurology, including neurostomatology, dermatology, venereology, psychiatry, narcology, medical psychology, physical rehabilitation, sports medicine, endocrinology)

Module 6 "Physical Rehabilitation, Sports Medicine"
normative discipline

level of higher education	the second (master's)
field of knowledge	22 «Healthcare»
specialty	221 «Dentistry»
academic qualification	Master of Dentistry
professional qualification	Dentist
Form of education	full-time education
course(s) and semester(s) of study of the discipline	4th year VII semester

INFORMATION ABOUT TEACHER

Surname, name, patronymic of the lecturer (lecturers), scientific degree, academic title	1. Boiko Dmytro Mykolaiovych, Doctor of Medical Sciences, Professor 2. Strashko Yevchen Yuriiovych, Candidate of Medical Sciences, Associate Professor 3. Liublinska Iryna Oleksandrivna
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MAIN CHARACTERISTICS OF THE COURSE

The volume of the academic discipline

Number of credits / hours – 1 / 30, among them:

Lectures (hours) – 4

Practical (seminars) (hours) – 16

Independent work (hours) – 10

Type of control – Final modular control (FMC)

The policy of the academic discipline

Peculiarities of studying the module "Physical Rehabilitation, Sports Medicine" is determined by the policy of the university and the department on the organization of the educational process. The department has created a high-quality and safe educational environment: lectures are given in the auditoriums of the university, which are equipped with multimedia projectors; practical classes are held on the bases:

Poltava Regional Hospital M.V. Sklifosovsky;

- Municipal Enterprise "Regional Clinical Hospital for Rehabilitation and Diagnostics with regional centers for family planning and human reproduction, medical genetics";
- Municipal Enterprise "Poltava Regional Clinical Hospital for War Veterans of Poltava Regional Council";
- Poltava State Experimental Prosthetic and Orthopedic Enterprise, which allows students to join in practice in future professional activities.

Dear student! When mastering the module, we follow the Regulation on the organization of the educational process at Poltava State Medical University and Internal code of conduct for students of Poltava State Medical University <https://www.pdmu.edu.ua/n-process/department-npr/normativni-dokumenti>

We pay attention! You need:

- comply with the schedule of the educational process and the requirements of the curriculum;
- it is obligatory to attend all types of educational classes provided by the curriculum;
- come to class early;
- be in proper shape (hat, robe, boot covers);
- follow safety rules;
- turn off the phone (except for interactive classes);
- not to leave the classroom without the permission of the teacher;
- to deeply and comprehensively master the knowledge and skills that will be necessary for a future highly qualified employee;
- be communicative and open to knowledge.

In case of skipping classes, you act accordingly to Regulation on retaking missed classes and making up unsatisfactory grades by the recipients of higher education at Poltava State Medical University <https://www.pdmu.edu.ua/n-process/department-npr/normativni-dokumenti>

The study of the module involves independent work of the student, which is regulated by

Regulation on the organization of self-directed work of students at Poltava State Medical University

<https://www.pdmu.edu.ua/n-process/department-npr/normativni-dokumenti>

Academic integrity is the foundation of sustainable development of higher education and a moral imperative for its further improvement. We adhere to a defined policy of academic integrity <https://www.pdmu.edu.ua/n-process/department-npr/normativni-dokumenti>) and seek reciprocity.

Assessment of learning outcomes is transparent and open. We are guided by the Regulation on the organization and methods for assessment of educational activities of higher education recipients at Poltava State Medical University <https://www.pdmu.edu.ua/n-process/department-npr/normativni-dokumenti> If you do not agree with the results of the evaluation, use the recommendations of Regulation on the appeal claim for the results of final control of academic performance for recipients of higher education <https://sport-health.pdmu.edu.ua/storage/common/docs/dw2esFUpUDVaUJFHT2Ppwm2tVsSE65Lu1x9WDyVg.pdf>.

Dear applicants! Our department actively implements distance learning technologies that are relevant in quarantine.

We invite you to view the video materials of the head of the department, doctor of medical sciences, professor Boiko D.M.:

<https://www.youtube.com/watch?v=yguab0LCRZ4>

<https://us02web.zoom.us/rec/share/HmpuCr0Zo5emIq-0ZYcLLBvnCWIGrJfZG3PD8pbijHSzOpmkxTTGp1XH5sCW4FOq.uwJrrtj2Qt6hVvDO>

https://us02web.zoom.us/rec/share/d4SsY6L0bHi4C8u-bze9EeMJ9e3fHB_yuWEPND8UizHloe-Y_Uo7PMqT5mkg-xGW.LonrTupJTb9cZTIA

<https://repository.tdmu.edu.ua/bitstream/handle/123456789/11015/%d0%9c%d0%90%d0%a2%d0%95%d0%a0%d0%86%d0%90%d0%9b%d0%98%20%d0%9a%d0%9e%d0%9d%d0%93%d0%a0%d0%95%d0%a1%d0%a3.pdf?sequence=1&isAllowed=y>

https://us02web.zoom.us/rec/share/TDC_T1noUmgKWH33IxSg4ogv4HiWDe6XdMMZuepkTcXK2Uv1NrGZ3vv4QBPcKCpm.e06Nr47H1eMiQAar

Associate Professor of the Department Candidate of Medical Sciences, Associate Professor Strashko E.Yu. in his video meetings he combines medical rehabilitation with the classics of world art:

https://m.facebook.com/story.php?story_fbid=714262956184913&id=100028036460214

https://m.facebook.com/story.php?story_fbid=722428758701666&id=100028036460214

Description of the academic discipline (summary)

Module 6 "Physical Rehabilitation, Sports Medicine" assumes ever greater importance for high-quality comprehensive training of future physicians, including dentists. The importance is being increasingly attached to the use of means of physical rehabilitation (PR) for disease prevention, rapid recovery, preservation of quality of life and prevention or elimination of various complications in dental patients.

WHO's experts note that nowadays more than 500 dental diseases and dental manifestations of somatic diseases are now known, the clinical course of which is often accompanied by severe physical and psychological suffering. Diseases, mechanical damage, defects or abnormalities in the development of the maxillofacial system often lead to profound impairment of vital functions such as external respiration, chewing, swallowing, speech and facial expressions, which adversely affect the functioning of the body as a whole, distort the aesthetic appearance of the face and significantly depress the psychological state of patients. That is why for the prevention or immediate elimination of these disorders is very important early and effective use of physical rehabilitation in the treatment of dental patients. The most active, purposeful and effective mean of physical rehabilitation is Physical Therapy (PT) is a method of restorative treatment, which goes without equivalent by its natural and biological effects, thereby it plays a major role among other non-drug restorative and preventive measures.

The use of rehabilitation aids for the prevention or functional treatment of occupational diseases in dentists is equally important. This is especially the case regarding the posture disorders, scoliosis, osteochondrosis, varicosity of the lower extremities, diseases of the circulatory system, respiratory system and other pathologies.

Thus, high-quality training of dentist is impossible without a perfect mastery of the basics of physical rehabilitation and sports medicine. The subject of study of the discipline is the study of the main principles of use of means and methods of physical rehabilitation in various dental pathologies for faster and more successful recovery of health, performance efficiency and quality of lifestyle of patients.

Pre-requisites and post-requisites of the academic discipline (interdisciplinary links)

Pre-requisites. Physical rehabilitation, sports medicine as an academic discipline is based on the study of human anatomy, physiology, pathophysiology, propaedeutics of internal medicine, propaedeutics of orthopedic dentistry; provides consistency and relationship with the prevention of dental diseases, surgical dentistry, orthopedic dentistry, neurology, neurostomatology and other subjects of the curriculum, which provides for the integration of teaching with these disciplines and

the formation of skills in physical rehabilitation and sports medicine in further education and professional activity. Knowledge and skills that a student must acquire to start studying the discipline or a list of previously listened to disciplines: human anatomy, medical biology, medical chemistry, medical and biological physics, physiology,

Post-requisites. Knowledge, skills and abilities of the discipline "Physical Rehabilitation, Sports Medicine" are required in the study of the following subjects: human physiology, medical biology, biological chemistry, military medicine, disciplines of medical and preventive and humanitarian cycle.

The aim and tasks of the academic discipline:

- the aim of studying the academic discipline is formation of students' basic knowledge of sports medicine and a holistic view of the use of methods and means of physical rehabilitation in the comprehensive treatment of patients with dental profile;
- the main tasks of studying the discipline are application of methods of physical rehabilitation for dental patients at inpatient, outpatient and sanatorium stages of treatment, sanitary-educational activities.

Competences and learning outcomes in accordance with the academic and professional program, the formation of which is facilitated by the discipline (integral, general, special)

The students have acquired these competencies according to the requirements of the standard:
integral:

- Ability to solve typical and complex specialized tasks and practical problems in the learning process, which involves research and / or innovation and it is characterized by complexity and uncertainty of conditions and requirements.

general:

- Ability to abstract thinking, analysis and synthesis;
- Knowledge and understanding of the subject area and understanding of professional activity;
- Ability to apply knowledge in practice;
- Ability to communicate in the state language both orally and in writing;
- Ability to communicate in English. Ability to use international Greco-Latin terms, abbreviations and clichés in professional oral and written speech;
- Skills in the use of information and communication technologies;
- Ability to search, process and analyze information from various sources;
- Ability to adapt and act in a new situation;
- Ability to identify, pose and solve problems;
- Ability to be critical and self-critical;

- Ability to work in a team;
- Ability to act socially, responsibly and consciously;
- The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.

special (professional, subject):

- Ability to collect medical information about the patient and analyze clinical data;
- Ability to interpret the result of laboratory and instrumental research;
- Ability to diagnose: determine the preliminary, clinical, final, concomitant diagnosis, emergencies;
- Ability to plan and implement disease prevention measures organs and tissues of the oral cavity and maxillofacial region;
- Ability to design the process of providing medical care: to determine approaches, plan, types and principles of treatment of diseases of organs and tissues of the oral cavity and maxillofacial region;
- Ability to determine the rational mode of work, rest, diet in patients in the treatment of diseases of organs and tissues of the oral cavity and maxillofacial region;
- Ability to determine the tactics of management of patients with diseases of organs and tissues of the oral cavity and maxillofacial region with concomitant somatic diseases;
- Ability to perform medical and dental manipulations;
- Ability to treat major diseases of organs and tissues of the oral cavity and maxillofacial region;
- Ability to organize and conduct screening examinations in dentistry; ;
- Ability to assess the impact of the environment on the health of the population (individual, family, population);
- Ability to maintain regulatory medical records;
- Processing of state, social and medical information; ;
- Ability to organize and conduct rehabilitation activities and care for patients with diseases of the oral cavity and maxillofacial area (MFA);
- Ability to provide legal support for one's own professional activity.

Learning outcomes of the academic discipline:

Program learning outcomes:

- Identify and identify the leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's anamnesis, data of the patient's examination, knowledge about the person, his organs and systems, to establish a probable nosological or syndromic preliminary clinical diagnosis of a dental disease (according to list 2);
- Collect information about the general condition of the patient, assess the psychomotor and physical development of the patient, the condition of the organs of the maxillofacial area, based on the results of laboratory and instrumental studies to assess information about the diagnosis (according to list 5);
- Appoint and analyze additional (mandatory and optional) examination methods (laboratory, radiological, functional and / or instrumental) according to list 5, patients with diseases of organs and tissues of the oral cavity and maxillofacial region for differential diagnosis of diseases (according to the list) 2);
- Establish a diagnosis of emergencies under any circumstances (at home, on the street, in a medical institution), in an emergency, martial law, lack of information and limited time (according to list 4);
- Determine the tactics of the dental patient with somatic pathology (according to list 3) by making an informed decision according to existing algorithms and standard schemes;
- Organize medical and evacuation measures among the population,
- servicemen, in emergency situations, including martial law, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support;
- Determine the tactics of emergency medical care, using the recommended algorithms, under any circumstances on the basis of a diagnosis of emergency in a limited time (list 4);
- Analyze and evaluate government, social and medical information using standard approaches and computer information technology;
- Assess the impact of the environment on the health of the population in a medical institution by standard methods;
- To form the purposes and to define structure of personal activity on the basis of result of the analysis of certain social and personal needs;
- Adhere to a healthy lifestyle, use the techniques of self-regulation and self-control;
- To be aware of and guided in their activities by civil rights, freedoms and responsibilities, to raise the general cultural level;

- Adhere to the requirements of ethics, bioethics and deontology in their professional activities;
- Organize the necessary level of individual safety (own and persons cared for) in case of typical dangerous situations in the individual field of activity;
- Perform medical manipulations on the basis of preliminary and / or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions (according to list 6);
- Perform emergency medical care manipulations, using standard schemes, under any circumstances on the basis of an emergency diagnosis (according to list 4) for a limited time (according to lists 6, 7).

upon completing their study in the academic discipline, students must:

know: basics of work in a multiprofessional/interdisciplinary team, basic indications and contraindications to the appointment of physical exercises, clinical and physiological purpose of physical exercises, classification of physical exercises, methods of drawing schemes and complexes of physical therapy, basic principles of selection and balancing of physical activity, methods of physical therapy, indications and contraindications to the use of FR, the peculiarities of the impact of physical activity of varying intensity on the human body, methods of correction and balancing of this effect.

be able to: evaluate and conduct a comprehensive medical examination, study the functional state of the body, quantify the level of physical health, determine and conduct physical work capacity of persons who deal with physical exertion, detect pathological and pre-pathological conditions and conduct medical and pedagogical control of these persons, prescribe physical rehabilitation and evaluate their effectiveness, apply an integrated approach to the rehabilitation of patients with dental field.

Thematic plan of lectures (by modules), specifying the basic issues, which are considered at the lecture

Seq. No.	Title of the topic	Number of hours
Module 1. "Physical rehabilitation and sports medicine"		
<i>Content module 1. "Sports Medicine"</i>		
1	<p>Comprehensive medical examination during practice of physical exercises. Research and evaluation of human physical development.</p> <p><i>Sports medicine and physical rehabilitation in the historical aspect. Modern ideas about sports medicine and physical rehabilitation, their role in the system of medical care. Sports medicine as a clinical discipline, its main purpose and tasks. Topical issues of optimization of human motor activity in today's conditions. Influence of physical activities of different intensity (insufficient, excessive and optimal) on the human body. Exercise in high-achievement sports. The system of organization of medical and physical culture service in Ukraine, medical exercises dispensary, centers of sports medicine and physical therapy (PT). Ways of work of doctor of sports medicine.</i></p> <p><i>Medical control in the process of health and sports training. Comprehensive methods of medical examination of persons who deal with physical exercises, its main sections. Types of medical examinations (primary, repeated, additional and others), their main tasks. Features of the case-history (general and sports) and medical examination of organs and systems, physiological features of the circulatory system in trained individuals. Physical development of person, factors that affect and the signs that characterize the person. Study of physical development and condition of the musculo-skeletal system by somatoscopy and anthropometry. Assessment of physical development by methods of standards, anthropometric field and indices.</i></p>	2
<i>Content module 2. "Physical rehabilitation"</i>		
2.	<p>General bases of application of means of physical rehabilitation in patients of a dental practice. Features of therapeutic massage in dentistry.</p> <p><i>The concept of functional tests and their significance in functional diagnostics. The main tasks of functional research. General requirements for conducting functional tests. Types of functional tests.</i></p>	2

	<i>Functional tests with respiratory arrest (Stange's test),</i>	
	<p><i>loading-respiratory samples, methods of their conduction and evaluation. Samples with change of position in space (orthostatic, clinostatic), methods of conduction and evaluation. Classification of functional tests with physical activity. The main physiological changes in hemodynamics in the case of physical activity.</i></p> <p><i>Functional tests with physical activity for recovery, their features and parameters by which they are evaluated. Functional tests with standard physical activity: Martin-Kushelevsky test (20 squats for 30 sec.) and combined Letunov's test, methods of conduction and evaluation of results. Determination of the type of reaction of the circulatory system to functional tests with standard exercise. Characteristics of normotonic, hypotonic, hypertonic, dystonic and step types of response to exercise.</i></p>	
	Total	4

Thematic plan of practical classes by modules and content modules, specifying the basic issues, which are considered at the practical class

Seq. No.	Title of the topic	Number of hours
Module 1. "Physical rehabilitation and sports medicine"		
<i>Content module 1. "Sports Medicine"</i>		
1.	<p>Research and assessment of the functional capabilities of the human body. Medical report.</p> <p><i>The concept of functional tests. The main tasks of functional research. General requirements for conducting functional tests. Classification of functional tests. Functional tests: respiratory arrest (Stange's test), body position change in space (orthostatic, clinostatic), a standard physical activity (Martin-Kushelevsky test - 20 squats in 30 seconds), methods of their implementation and assessment of the results. Types of reaction of the circulatory system to functional tests with physical activity: normotonic, hypotonic, hypertonic, dystonic, stepped, their characteristics. Analysis of the results of a complex medical examination. Medical report. External signs of varying degrees of fatigue during physical exercises. The concept of tolerance to physical activity. Clinical and functional signs of the tolerance threshold. Pre-pathological and pathological conditions that occur during inadequate physical activity, ways of their prevention and emergency care.</i></p>	2

2.	<p>Research and assessment of the functional state of the oral and maxillofacial system in a dental clinic.*</p> <p><i>Anatomical and physiological features of soft tissues and muscles located in the maxillofacial area (facial, masticatory, glossal, pharyngo-palatine, cervical muscles) and temporomandibular joints. Scheme of examination of the functional state of the tissues of the maxillofacial area. Diagnostic physical exercises and test complexes to identify the degree of functional disorders of the dental and maxillofacial system. Assessment of the contractile ability of the circular muscle of the eye, circular muscle of the mouth, muscle of the tongue, masticatory muscles, pharyngo-palatine muscles and muscles of neck. Functional diagnostics of the oral and maxillofacial system by special masticatory tests (according to I.S. Rubinov) and instrumental methods: gnathodynamometry, myotonometry, electromyography, mastication, measurement of vital capacity of the lungs. Conclusion is based on the outcomes of functional examination of the oral and maxillofacial system.</i></p>	2
Content module 2. "Physical rehabilitation"		
3.	<p>Physical rehabilitation (PR) in the presence of purulent-inflammatory processes of the maxillofacial area.*</p> <p><i>Clinical and physiological substantiation of use of PR in the presence of periodontal diseases, purulent-inflammatory processes of the maxillofacial area. Indications and contraindications to the appointment of PT. The main methodological approaches and features of physical therapy PT in the presence of periodontitis, periodontal disease, surgical treatment of purulent-inflammatory processes (abscesses, phlegmon) of the maxillofacial area. Features of massage techniques (digital, hardware) and self-massage of the gums. Motional regimes of patients, periods of PT. Assessment of the effectiveness of use of PR. rehabilitation equipments.</i></p>	2
4.	<p>Physical rehabilitation in the presence of fractures of the jaws and bones of the facial skeleton.*</p> <p><i>Clinical and physiological substantiation of use PR in the presence of fractures of the jaws and bones of the facial skeleton. Indications and contraindications to the appointment of PT. The main approaches and features of the technique of PT for fractures of the jaws and bones of the facial skeleton, depending on the method of fixation of bone fragments. Periods of physical therapy, their tasks. Activity of motional regimes of patients at the stages of PR. Features of mechanotherapy and massage. Assessment of the effectiveness of PT and use of other means of PR.</i></p>	2

5.	<p>Physical rehabilitation in the presence of diseases and contractures of the temporomandibular joints.</p> <p><i>Clinical and physiological substantiation of use PR in diseases and contractures of the temporomandibular joints. Indications and contraindications to the appointment of PT. The main approaches and features of methods of PT in diseases and contractures of the temporomandibular joints. Motional regimes of patients. Periods of PT, their tasks. Activity of motional regimes of patients at the stages of PR. Features of mechanotherapy and massage. Assessment of the effectiveness of PT and use of other means of PR.</i></p>	2
6.	<p>Physical rehabilitation in the presence of neuritis of the facial and trigeminal nerves.*</p> <p><i>Clinical and physiological substantiation of use of PR in the presence of neuritis of the facial and trigeminal nerves. Indications and contraindications to the appointment of PT. The main approaches and features of the technique of PT in functional disorders of the oral and maxillofacial system caused by neuritis of the facial or trigeminal nerves. Periods of PT, their tasks. Activity of motional regimes of patients at the stages of PR. Features of methods of electrical stimulation, reflexology, mechanotherapy and massage in complex rehabilitation treatment of patients. Assessment of the effectiveness of PT and use of other means of PR.</i></p>	2
7.	<p>Physical rehabilitation during reconstructive and plastic surgeries in the maxillofacial area. Physical rehabilitation for occlusion disorders and congenital anomalies of jaw development in children.</p> <p><i>Clinical and physiological substantiation of use of PR during reconstructive and plastic surgeries on the maxillofacial area. Indications and contraindications to the appointment of PT. The main methodological approaches and features of PT in reconstructive and plastic surgery on the maxillofacial area for scarring after soft tissue injuries, burns, removal of tumors. Periods of PT, their tasks. Activity of motional regimes of patients at the stages of PR. Features of therapeutic massage. Assessment of the effectiveness of PT and use of other means of PR. Clinical and physiological substantiation of use of PR in occlusion disorders and congenital anomalies of jaw development in children. Indications and contraindications to the appointment of PT. The main methodological approaches and features of PT techniques, including sound gymnastics, reconstructive surgeries concerning nonunion of a lip, hard and soft palate, functional disturbances and anomalies of development of a bite in children. Periods of applying of PT in pediatric dentistry, their tasks. Activity of motional regimes of patients at the stages of PR. Features of therapeutic massage. Assessment of the effectiveness of the course of PT and use of other means of PR.</i></p>	2

8.	<p>Use of physical rehabilitation for the prevention and treatment of occupational diseases in dentists.*</p> <p><i>Clinical and physiological justification of use of PR for the prevention and rehabilitation of occupational diseases in dentists. Influence of professional activity on the physical condition of a dentist. The importance of choose the optimal working position and its changes in the process of work for the prevention of occupational diseases of the dentist. Special exercises for the prevention and treatment of occupational pathology in dentists: diseases of the musculo-skeletal system (posture disorders, scoliosis, osteochondrosis of the spine); varicosity of the lower extremities, eyestrain; diseases of the circulatory system, respiratory system and other pathologies. Rational planning of working time, rest, workplace arrangement. Use of physical training breaks, industrial and medical gymnastics during the individual healthful program of physical activity.</i></p>	2
Total		16

Note: mark as * the topics, for which a positive grade must be obligatorily given.

Independent work

Seq. No.	Title of the topic	Number of hours
1.	Preparing for practical training	4
2.	<p>General principles of physical rehabilitation in dental patients. Features of the use of therapeutic massage in dentistry.</p> <p>To know the main indications, contraindications to the use of physical rehabilitation of patients with a dental profile, the mechanism of therapeutic effect of physical exercises and the basics of load dosage. To master the theoretical basis of practical application of massage in dental practice.</p>	2
3.	Preparing for the final module control.	4
TOTAL		10

Individual tasks:

- review of scientific and methodical literature according to the topics of lectures, practical classes;
- writing reports;
- participation in research work;
- preparation of scientific reports for students' scientific conferences.

The list of theoretical questions for students' preparation for the final module control and

semester final attestation

Content module 1. "Sports medicine"

1. Definition of physical rehabilitation and sports medicine as a clinical discipline, its purpose and significance in modern medical practice.
2. Medical control during physical exercises, the main sections of a complex medical examination.
3. Methods of research and assessment of human physical development.
4. Methods of research of functional condition of organism by means of functional tests, types of functional tests, the basic tasks of functional inspection.
5. Functional tests with respiratory arrest and with change of position in space (orthostatic, clinostatic), methods of their implementation and assessment.
6. Functional tests with standard physical activity (20 squats in 30 seconds), methods and assessment of results.
7. Types of reaction of the circulatory system to physical activity, their characteristics and assessment of the functional state of the circulatory system.
8. Analysis of the results of a complex medical examination. Medical report.
9. Assessment of different degrees of fatigue during physical exercises.
10. Assessment of exercise tolerance, clinical and functional signs of the tolerance threshold.
11. Pre-pathological and pathological conditions that occur during inadequate physical activity, ways of their prevention and emergency care.
12. Anatomical and physiological features of soft tissues and muscles located in the maxillofacial area (facial, masticatory, glossal, pharyngo-palatine, cervical muscles) and temporomandibular joints.
13. Scheme of examination of the functional state of the tissues of the maxillofacial area. Diagnostic physical exercises and test complexes to identify the degree of functional disorders of the dental and maxillofacial system.
14. Assessment of the contractile ability of the circular muscle of the eye, circular muscle of the mouth, muscle of the tongue, masticatory muscles, pharyngo-palatine muscles and muscles of neck.
15. Functional diagnostics of the oral and maxillofacial system by special masticatory tests (according to I.S. Rubinov) and instrumental methods: gnathodynamometry, myotonometry, electromyography, mastication, measurement of vital capacity of the lungs.

Content module 2. "Physical rehabilitation"

1. Definition of physical rehabilitation (PR), its main tools, general principles and stages.
2. Physical therapy (PT) as a method of restorative treatment, its characteristics and methodological principles.
3. Basic and additional means of PT, their characteristics, forms and methods of PT.
4. Periods of PT and activity of motional regimes of dental patients at different stages of rehabilitation treatment.
5. Physiological mechanisms of therapeutic action of physical exercises, classification of physical exercises used during PT.
6. Types of special exercises used for dental patients, the concept of breathing and sound gymnastics.
7. Indications for the appointment of PR and PT in a dental clinic.

8. Contraindications to the appointment of PT in dental patients.
9. Basic principles of selection and dosage criteria for physical exercises during PT.
10. Accountance of the effectiveness of PT and the use of other means of physical rehabilitation.
11. Methodological features of the use of PT in the complex treatment of dental patients at different stages of PR.
12. Registration of prescriptions with PT in medical records. Features of scheming of procedures and complexes of therapeutic exercises (TE) and individual classes for dental patients.
13. Significance and features of mechanotherapy in the complex treatment of dental patients.
14. Indications and contraindications for the appointment of therapeutic exercises (TE) for dental patients.
15. Anatomical and physiological features of blood, lymph circulation and innervation of soft tissues of the face, head and neck.
16. Physiological mechanisms of therapeutic effect of massage on the human body and its effect on the functional state of the dental and maxillofacial system.
17. Basic and additional massage techniques. Features of the technique of classical therapeutic massage of the face, head and neck.
18. Features of PR in the presence of purulent-inflammatory processes in the maxillofacial area: tasks, means and forms of PT in the preoperative, first and last postoperative periods after incision of phlegmon or abscess in the maxillofacial area.
19. Special exercises for self-performance in the presence of purulent-inflammatory processes in the maxillofacial area, features of their purpose.
20. Features of PR accompanying periodontal diseases: methods of PT, massage (digital and hardware) and self-massage of the gums.
21. Features of PR accompanying open and closed fractures of the jaws: the main requirements for the method of applying of PT, tasks and means of PT in the first, second and third periods of rehabilitation depending on the method of fixation of bone fragments.
22. Features of applying of special exercises and passive and active mechanotherapy in the case of conservative and surgical methods of treatment of fractures of jaws.
23. Features of PR accompanying burns and burn contractures of soft tissues of the maxillofacial area: tasks, means of PT, special exercises, massage and mechanotherapy in different periods of rehabilitation treatment.
24. Features of PR accompanying diseases and contractures of the temporomandibular joints: indications and contraindications to the appointment of PT, special exercises and mechanotherapy for conservative treatment, as well as in the first and second periods after surgery.
25. Features of PR accompanying facial nerve neuritis: contraindications to the appointment of PT, tasks and means of PT in different periods of rehabilitation, features of therapeutic gymnastics and massage.
26. Tasks and features of PT in the presence of facial nerve disorders that have arisen as a result of surgical treatment of parotid salivary gland diseases.
27. Special exercises, active and passive mechanotherapy, massage, reflexology and other means of PR for paresis and paralysis of facial muscles.
28. Features of PR accompanying trigeminal neuritis: tasks, means of PT, special exercises in different periods of rehabilitation treatment, features of therapeutic gymnastics, massage and mechanotherapy.
29. Features of PR accompanying reconstructive and restorative surgeries in the presence

of traumas and injuries of the soft tissues of the facial skeleton, methods of therapeutic gymnastics and massage in the postoperative period in the surgical treatment of defects and distortion of face.

30. Features of methods of therapeutic gymnastics, massage and mechanotherapy after removal of tumors in the maxillofacial area, tasks, means of PT and special exercises in different periods of rehabilitation.

31. Features of PR in the case of reconstructive and reconstructive surgeries for nonunion of the upper lip and soft palate, tasks, forms and basic requirements for the method of PT in the pre- and postoperative periods.

32. Sound gymnastics and special exercises that have a purposeful effect on functionally defective systems in children with congenital malformations of the upper lip, hard and soft palates.

33. Features of PR in the case of disorders of occlusal development and congenital anomalies of the dentofacial system in children: the main requirements for the method of PT and special exercises for individual performance.

34. Features of the method of morning hygienic, industrial and preventive gymnastics for dentists, rational planning of working time, rest, workplace arrangement, healthful physical activity.

35. Tasks and features of therapeutic gymnastics in the manifestations of occupational diseases in dentists.

The list of practical skills required for the final module control and semester final assessment

Content module 1. "Sports Medicine"

- learn the method of complex medical examination of patients of dental profile, to determine physical development, functional state of the main physiological systems of the body, state of health and tolerance to physical activity;
- learn the method of diagnosis of functional disorders of the dentofacial system in dental patients;
- assess the different degrees of fatigue during physical exercises and tolerance exercises;
- diagnose early signs of fatigue, pre-pathological and pathological conditions that occur during inadequate physical activity, know the means of their prevention and be able to provide emergency medical care.

Content module 2. "Physical rehabilitation"

- choose the most effective means of PR, including optimal motional regime and dose of physical activity during rehabilitation treatment of patients with dental profile;
- recommend the most effective means of PR to patients with dental profile depending on the clinical course of the disease (phase, stage, degree of functional disorders of the dental system), comorbidities, as well as according to individual characteristics (age, sex, functional abilities, level of physical fitness and tolerance to physical activity, the state of protective systems) at different stages of rehabilitation based on the results of the examination;
- master the method of therapeutic massage of the face, neck and head, which are used in the complex treatment of dental patients;
- determine the possibility of complications and temporary contraindications to the use of PR in patients with dental profile;
- identify differentiated appointment of means of PT, including optimal motional regime, therapeutic gymnastics, special physical exercises for self-performance,

massage, mechanotherapy and others with purulent-inflammatory processes in the maxillofacial area, open and closed fractures of the jaws, traumatic injuries, including soft tissue burns of the maxillofacial area, contractures of the temporomandibular joints, neuritis of the facial and trigeminal nerves, reconstructive surgery for injuries of the soft and bone tissues of the facial skeleton, removal of tumors, nonunion of the upper lip and palate development of occlusion and functional disorders of the dental and maxillofacial system in children;

- learn the methods of assessing the effectiveness of the course of physical rehabilitation.

Teaching methods

- verbal (lecture, explanation, story, conversation, instruction);
- visual (observation, illustration, demonstration);
- thematic discussions;
- brainstorming;
- analysis of specific situations (case method);
- simulation tasks, presentations, trainings);
- practical (practice for developing skills and abilities, independent work), which covers the requirements for a doctor of sports medicine and physical therapy, practical work, research work.

Forms and methods of assessment

In the course of mastering the discipline "Physical Rehabilitation and Sports Medicine with Peculiarities of Childhood", the teachers of the department use individual and frontal testing of knowledge, skills and abilities of higher education students. Oral control, test control, checking the solution of situational tasks, as well as methods of self-control and self-assessment; the final form of control is represented by a test.

The forms of control measures, as well as approaches and procedure for assessing the learning activities of students in the discipline "Physical Rehabilitation, Sports Medicine with Peculiarities of Childhood" are regulated [by paragraph 6 of the "Regulations on the Organisation and Methodology for Assessing the Learning Activities of Higher Education Students at Poltava State Medical University"](#).

Methodological support

1. Academic course working curriculum.
2. Plans of practical classes, lectures and individual work of students.
3. Multimedia presentations of the lecture course of the department.
6. Test and control tasks for practical classes.
7. Questions and control tasks of the discipline, a list of questions of practical skills.

Recommended reading

Basic (available at the library of PSMU)

1. Braddom's Physical Medicine and Rehabilitation 5th Edition. David X. Cifu. Elsevier. Published Date: 20th August 2015. Page Count: 1232.
2. Netter's Sports Medicine 2nd Edition. Christopher Madden Margot Putukian Eric McCarty Craig Young. Elsevier. Published Date: 28th April 2017. Page Count: 816.

Supplementary

1. Issues in Dentistry, Oral Health, Odontology, and Craniofacial Research: 2011 Edition is a Scholarly Editions™ eBook that delivers timely, authoritative, and comprehensive information about Dentistry, Oral Health, Odontology, and Craniofacial Research. / <https://books.google.com.ua/booksid=nCPe9LFUrzIC&lpg=PT1236&dq=rehabilitation%2C%20stomatology&hl=uk&pg=PT1236#v=onepage&q&f=false>
2. Treating the Dental Patient with a Developmental Disorder Karen A. Raposa, Steven P. Perlman John Wiley & Sons, 2012- 304 p.
3. Pediatric Facial and Reconstructive Surgery, An Issue of Facial Plastic Surgery Clinics of North America, E-Book Elsevier Health Sciences, 2014 - 217 p.

Information resources

1. Global Strategy on Diet, Physical Activity and Health / Electronic resource. - Access mode: http://www.who.int/dietphysicalactivity/factsheet_recommendations/en/.

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