

**LVIV NATIONAL MEDICAL UNIVERSITY N.A. DANYLO HALYTSKY**  
**Department of Physical Training and Sports Medicine**

**Approved at the methodical meeting of  
the department of Physical training and sports medicine  
Head of the department**

**k.b.s., associate prof. Kunynets O.B.**  
**Protocol №1 from 30 of August 2021**



**GUIDELINES**

in the discipline

**PHYSICAL REHABILITATION AND SPORTS MEDICINE**

for 4th year students

training of specialists of the second (master's) level higher education in the field of  
knowledge 22 "Health" specialty 222 "Medicine" for independent work in  
preparation for practical classes

**Topic 7 "Basics of therapeutic massage."**

LVIV-2021

Methodical guidelines are made in accordance with the requirements of the curriculum in the discipline "Physical Rehabilitation and Sports Medicine", compiled to train specialists of the second (master's) level of higher education in the field of knowledge 22 "Health" specialty 222 "Medicine".

According to the curriculum, the study of physical rehabilitation and sports medicine at the medical faculty is carried out in the 4th year of study. The program is designed for 60 hours, of which 30 classroom hours (practical classes), 10 hours - lectures and 50 hours of independent work of students (IWS).

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Methodical recommendations were discussed and approved at the methodical meeting of the Department of Physical Education and Sports Medicine

Protocol № 1 from 30 of August 2021

## 1. Relevance of the topic:

Massage - a method of healing, improving performance, treatment and prevention of diseases, as well as rehabilitation, which is a set of techniques of mechanical dosing on various parts of the body surface, performed by the hands of a masseur or special devices or devices. The study of the discipline requires in-depth knowledge of the relevant sections of pathological physiology, internal medicine, surgery, traumatology, neurology, pediatrics with knowledge of the application of a particular drug, so knowledge of forms, tools and methods of physical rehabilitation is a necessary part of a harmonious treatment of people with various pathologies.

## 2. Class duration: 2 hours

## 3. The purpose of the lesson:

### 3.1. Main goal:

- to create students' ideas about the importance of massage as an integral part of comprehensive treatment and prevention of diseases of various organs and systems;
- to teach students the basic techniques of massage.

### 3.2. Educational goal:

- education of students of modern professional thinking;
- to acquaint with the achievements of domestic scientists in the development of this problem;
- the ability to explain to the patient the need to include massage in a set of restorative measures.

### 3.3. Specific goal:

#### *Know:*

- types of massage;
- physiological effect of massage on the body;
- indications and contraindications to the appointment of massage;
- hygienic bases of massage procedure;
- basic massage techniques.

#### *Be able:*

- correctly determine the initial level of the functional state of the patient's body systems (cardiovascular, respiratory, nervous, muscular),
- determine the presence of contraindications to the appointment of massage;
- correctly choose and correctly assign forms, methods of massage

#### *Learn practical skills:*

- on the basis of clinical-laboratory and functional research methods to correctly prescribe massage;
- perform basic massage techniques;
- assess the impact of the massage procedure on objective and subjective indicators.

## 4. Interdisciplinary integration

Anatomy - knowledge of the anatomy of the musculoskeletal, cardiovascular, respiratory, digestive, nervous systems. Be able to determine the correctness of the body structure, posture, the integrity of the skin.

Normal physiology - features of the physiological state of the body Analyze the physiological constants of muscle work.

Pathological physiology - be able to detect clinical manifestations of acute overexertion, chronic fatigue of varying severity.

Propaedeutics of internal diseases - detect disorders of the cardiovascular system, respiratory tract, digestive system, kidneys.

Propaedeutics of children's diseases - to know the structure and functions of the cardiovascular system, respiratory tract, digestive and nervous systems in children. Features physical development of children.

## **5. Student advice.**

### **5.1. Topic content:**

#### **PHYSIOLOGICAL EFFECT OF MASSAGE ON THE BODY**

The mechanism of the effect of massage on the body is based on a complex process caused by neuro-reflex, humoral and mechanical effects. They are all interconnected, so it is almost impossible to separate them from each other. The starting point of the impact of massage on the body is the mechanical irritation applied to the tissues by special techniques. The variety of techniques used makes it possible to exert an impact from very weak to extremely intense. Massage techniques, acting on the tissues, cause the excitation of mechanoreceptors, which are designed to convert the energy of mechanical stimulation into a specific activity of the nervous system - signals that carry information to the nerve centers. Mechanoreceptors are located throughout the body. These include skin and muscle receptors that are irritated by touch, pressure, or vibration; receptors of internal organs (interreceptors) which are excited at change of pressure on bodies and walls of vessels. Mechanical irritation, deforming the capsule of mechanoreceptors, leads to a change in its permeability to sodium ions, which, in turn, reduces the resting membrane potential and the emergence of receptor potential, which is transmitted to the afferent nerve fiber. As a result of the processes of summation of receptor potentials on the nerve fiber there is a potential action, which in the form of centripetal (afferent) impulses is transmitted by sensitive pathways to the central nervous system, where it is analyzed, synthesized into a complex complex reaction. The neuro-reflex mechanism of massage on the body is the main, but not the only one. The literature describes the humoral and mechanical effects of massage on capillaries, skin trophism, gas exchange, muscular system, function of joints and tendon-ligamentous apparatus, cardiovascular system, respiratory system, digestive system, etc. When studying the mechanisms of physiological effects of massage, it is necessary to keep in mind its complex effect on the body, ie any mechanical irritation caused by one of the massage techniques acts both at the site of its application and due to the presence of neuro-reflex connections in this area. central nervous system, affects the functional state of the whole organism. Therefore, for a more detailed study of the physiological effects on the body, we will consider its effects on organs and systems and their function separately, keeping in mind the complex mechanism of action of massage on the whole body.

#### **Physiological effect of massage on the skin**

During the massage mechanically the skin is cleansed of exfoliated cells of the epidermis, dust, microbes, skin vessels dilate, increases the flow of arterial blood to the mass areas, local temperature rises, the saturation of the skin with oxygen and nutrients is intensified, enzymatic processes are enhanced, excretion of sweat and sebaceous glands is enhanced, histamine and acetylcholine secretion is increased, elasticity, resilience and skin tone are increased, venous blood flow and venous blood flow are increased.

#### **Physiological effect of massage on the muscular system**

The effect of massage on the muscular system is to increase the contractility, strength and efficiency of muscles, the speed of recovery processes, normalize muscle tone, resorption of hemorrhages and edema, accelerate regeneration processes, restore muscle elasticity.

#### **Physiological effect of massage on the joint and ligament apparatus**

The effect of massage on the joint and ligament apparatus is to improve the elasticity and strength of ligaments and tendons, improves mobility in the joints. By improving the blood supply to the joints, it stimulates the formation and circulation of synovial fluid in them, prevents pathological changes in cartilage and wrinkling of the joint bags.

#### **Physiological effect of massage on the circulatory and lymphatic systems**

The effect of massage on the circulatory and lymphatic systems is manifested primarily in the expansion and increase in the number of functioning capillaries. The number of open capillaries in 1 mm<sup>2</sup> of cross-section of the muscle increases 45 times, and their total capacity - 140 times. The speed of blood circulation accelerates, venous blood circulation improves, peripheral resistance decreases. At the same time there is an increase in the amount of flowing lymph from the area being massaged, its passage through the vessels is accelerated, lymph circulation is increased by 6-8 times.

#### **Physiological effect of massage on the respiratory system**

The effect of massage on the respiratory system enhances gas exchange, increases oxygen saturation of arterial blood and oxygen consumption by tissues, the release of carbon dioxide, reducing congestion in the lungs, improving ventilation and improving the function of the external breath.

#### **Physiological effect of massage on metabolism**

The positive effect of massage on metabolism is to intensify the supply of nutrients and oxygen to tissues, excretion of decomposition products and carbon dioxide, activation of redox and metabolic processes, removal of mineral salts from sweat, and with urine - nitrogenous organic matter.

#### **Physiological effect of massage on internal organs**

The positive effect of massage on the internal organs is manifested by the improvement of blood supply, normalization of the tone of unstriated muscles, increased secretion of glands.

#### **Physiological effects of massage on the nervous system**

Under the influence of massage there is a transformation of mechanical energy of nervous influence that gives extremely difficult reflex reactions. By changing the nature, strength, duration and areas of influence, you can change the functional state of the cerebral cortex depending on the tasks - to increase or decrease overall nervous excitability, restore lost reflexes, improve tissue trophism and the activity of individual internal organs.

#### **Indications and contraindications to the appointment of massage**

You can massage all healthy people, taking into account their age and reactivity of the nervous system. Massage is indicated for the treatment and rehabilitation of patients in different periods of illness and injury, it is used as a means of primary and secondary prevention, improving physical and mental performance. Massage is prescribed in cosmetic practice, for hygienic purposes, in sports medicine.

Massage should be prescribed in cases where it is necessary to cause active hyperemia, improve lymph and blood circulation, tissue metabolism, achieve resorption in edema and effusion, normalize muscle tone, restore muscle function and mobility in the joints, speed up or slow down callus formation, normalize functional state of somatic (central, peripheral) and autonomic nervous system.

**Contraindications for the appointment of massage are divided into permanent and temporary.**

**Permanent contraindications** are conditions in which massage is prohibited for the patient at present and cannot be prescribed in the future.

Permanent contraindications include:

- severe condition of the patient, accompanied by an increase in cardiovascular, respiratory, hepatic, renal and other insufficiency;
- neoplasms, including benign;
- thrombophlebitis, vascular thrombosis, varicose veins with trophic disorders;
- septic condition, blood diseases, bleeding;
- bronchiectasis in the stage of tissue decay;
- syphilis of II-III degree and other acute venereal diseases;

- severe sclerosis of the vessels of the brain with a tendency to thrombosis and bleeding, and others.

#### **Temporary contraindications:**

- general serious condition of the patient with various diseases and injuries;
- body temperature more than 37.5 ° C;
- acute inflammatory process, acute respiratory viral diseases;
- increase of erythrocyte sedimentation rate (ESR);
- the presence of purulent processes in the body;
- acute period of the disease: cerebrovascular disorders, myocardial infarction, hypertensive crisis, etc .;
- active phase of tuberculosis;
- exacerbation of intestinal diseases, nausea, vomiting;
- conditions that require immediate surgical intervention;
- diseases of lymph vessels and nodes;
- acute allergic conditions;
- severe pain;
- bleeding and risk of bleeding;
- diseases of the skin, nails, scalp of infectious, fungal and indeterminate nature, various skin rashes, injuries, skin irritations;
- mental illnesses that make it difficult to contact the patient;
- menstrual period and 2-3 trimesters of pregnancy in women;
- the presence of foreign bodies near the main vessels and nerve plexuses;
- a state of severe fatigue and agitation in athletes, and others.

#### **Classification of types of massage**

Depending on the tasks, there are the following types of massage: therapeutic, hygienic, cosmetic, sports. It is performed by hand (manual), with the help of massage devices (hardware), or combined (combine manual and hardware). Certain parts of the body (local) or the whole body (general) can be massaged. It can be performed by a masseur or the patient himself (self-massage).

Today, massage is widely used as a remedy in clinics, sanatoriums, rehabilitation centers, as well as to restore strength in the system of physical culture and sports. Sports massage is a mandatory component of the training process of athletes.

**Hygienic massage.** This type of massage is an active means of disease prevention, preservation of working capacity. It is used in the form of a general massage or massage of individual parts of the body. During its performance various techniques of manual massage, special devices, and also self-massage (in combination with morning gymnastics), self-massage in a sauna, under a shower, etc. are used. One of the types of hygienic massage is cosmetic, which is used for pathological changes in the skin and as a means of preventing its aging.

**Therapeutic massage.** This type of massage is an effective method of treating various injuries and diseases. There are the following varieties:

classic - is used without taking into account the reflex effect and is carried out near the damaged area of the body or directly on it;

reflex - it is carried out for the purpose of reflex influence on a functional condition of internals, systems and fabrics (thus use special receptions, influencing certain zones - dermatomes);

connective tissue - in this type of massage affect mostly the connective tissue, subcutaneous tissue. The main techniques of this type of massage are performed taking into account the direction of the lines of Jueninghof;

periosteal - in this type of massage by affecting the points in a certain sequence cause reflex changes in the periosteum;

acupressure - a type of therapeutic massage, in which the local active points (zones) are locally affected in certain diseases (according to the indications or in case of dysfunction or localized pain in a certain part of the body);

hardware - carried out using vibrating, pneumatic, vacuum, ultrasonic, ionizing devices. Varieties of barostimulation, electrostimulation and other types of massage (different types of applicators, etc.) are also used;

therapeutic self-massage - performed by the patient, can be recommended by a doctor, a nurse, a specialist in massage or physical therapy. It is necessary to choose the most effective methods of self-massage to affect a particular area of the body.

**Sports massage.** This type of massage is developed and systematized by prof. I.M. Sarkizov- Serazini. According to the tasks, the following varieties are distinguished: hygienic, preliminary, training and restorative.

Hygienic massage is usually performed by the athlete at the same time as morning gymnastics or warm-up.

Training massage is performed to prepare the athlete for the highest sporting achievements in the shortest period and with less expenditure of psychophysical energy.

Used in all periods of sports training. The technique of training massage depends on the tasks, features of the sport, the nature of physical activity and a number of other factors.

The general massage begins with the previous one. It is used to normalize the condition of various organs and systems of the athlete before the next physical or emotional stress. Depending on the tasks, there are the following types of preliminary massage: warm-up - performed before a training session or participation in competitions, when it is necessary to maintain or increase body tone until the moment of exercise, taking into account the specifics of the sport; warming - used to cool the body or individual parts of the athlete's body, using various rubs, ointments (finalgon, dolpik, nicoflex, etc.); mobilizing - used to mobilize all the resources of the athlete's body - physical, mental, technical, etc., and often in combination with verbal "suggestion".

Regenerative massage is a type of sports massage that is used after different types of loads (physical, mental) and at any degree of fatigue or exhaustion to restore various functions of the athlete's body and increase his efficiency. Short-term restorative massage is performed during a break for 1-5 minutes between rounds, fights, races, hitches in sports games, etc. The main tasks of short-term restorative massage are: to relieve excessive neuromuscular and mental stress; relax the neuromuscular system and create conditions for optimal recovery of the body; to remove the revealed painful sensations; to increase the general and special working capacity of both individual parts of the body and the whole organism.

**Self-massage.** In everyday conditions it is not always possible to use the services of a massage specialist. In these conditions, you can use self-massage. Beginning to master the technique of self-massage, it is necessary to follow the following rules: all movements should be carried out along the lymph flow to the nearest lymph nodes; the upper extremities should be massaged towards the elbow and axillary lymph nodes; lower extremities - massage for direction to the popliteal and inguinal lymph nodes; massage the chest in front and to the sides in the direction of the armpits; massage the neck from top to bottom to the supraclavicular lymph nodes; the lumbar and coccygeal areas should be massaged towards the inguinal lymph nodes; the lymph nodes themselves are not massaged; try to achieve optimal muscle relaxation of those parts of the body on which the massage is performed; hands and body must be clean; in some cases, self-massage can be performed through fine cotton or wool underwear.

It should be noted that self-massage requires a masseur to expend significant muscle energy, creates a heavy load on the heart and respiratory system, as well as any physical work, which in turn

leads to the accumulation in the body of metabolic products. In addition, when performing self-massage it is impossible to achieve complete freedom of movement, and some manipulations are quite inconvenient, and thus limit the reflex effects of massage on the body.

### **Classification of massage methods**

In the theory and practice of massage there are four methods of massage (self-massage): manual, when the massage is performed with the hands; hardware - with the help special devices and appliances; foot - with the help of feet; combined - a combination of manual and / or hardware and foot massages.

*Classic manual* method of massage. The main and most common method of sports, hygienic and therapeutic massage is a manual classical massage, which has a wide range of techniques that are easy to dose with the help of sight and touch and control their accuracy and efficiency. The manual method of massage has an advantage over hardware, foot and combined, as it can be used not only in the hospital ward, massage room, in the stadium during the game, on the pool, but also in at home, in the bath, during the shower, bath, etc. Hardware method of massage. This method is optional. It can be performed either by direct contact with the skin or through the air or water environment. The most widespread are such types of hardware massage method as vibration massage, hydromassage, pneumatic, vacuum massage. In addition, in practice, also used, electrical stimulation massage, ultrasound and baromassage. Different types of hardware massage, as well as manual massage, can be used in the process of performing segmental, acupressure or periosteal massage. Combined massage method. In recent years, increasingly began to use a combined method of massage, in which combines the manual method (it takes 65-75% of the time) and hardware (25-35% of the time). *Hardware massage* is recommended to apply in the middle of the session. Mechanical vibration complements and deepens the physiological effect of manual massage, which as it were prepares one or another part of the body and the body as a whole for a stronger effect of hardware massage. The hardware method allows you to rest the tired muscles of the masseur by changing the load. The combined method in some cases gives a greater effect than the separate use of manual and hardware methods. *Foot massage method*. This massage is performed with the feet - heel, toes and knees. It is usually carried out in sanatorium conditions, in the water environment or baths. In the East, it is often used in baths, after deep warming of muscles and joints. The foot method of massage does not have a well-established method of conducting. It is sometimes used in sports practice to massage very massive athletes (weightlifters-weightlifters, wrestlers, boxers). The foot method is often used by athletes themselves, massaging each other (mutual massage) after training to restore physical performance or before training, competitions to prepare for the load not only muscles but also joints (knees, hips, spine). The general session takes up to 35 minutes. Foot massage should be performed with extreme caution, especially when massaging the back in the lumbar region, kidneys and neck.

### **Massage technique**

The technique of hand massage was formed long ago and described by many authors. Today the most common technique of classical massage, described by O.F. Verbov (1966). Massage is performed with special hand movements, called techniques. O.F. Verbov distinguishes 4 main groups of massage techniques: stroking, rubbing, kneading, vibration. In sports massage AA Biryukov (2008) identifies 9 groups of techniques (based on the techniques of classical massage): stroking, squeezing, rubbing, kneading, vibration, shock techniques, movements (active, passive, with resistance).

***Technique of classical massage*** Verbov O.F. (1966).

*Stroking* is a technique in which the masseur's brush slides on the surface of the skin without displacing it, while applying varying degrees of pressure.



The massage procedure begins with stroking and ends with it. In addition, stroking alternates with other massage techniques. Stroking takes about 5-10% of the total duration of the massage.

#### *Physiological effect of stroking*

Stroking has a positive effect on the skin (cleanses the skin, improves respiration, metabolism, activates secretion, increases tone and elasticity), improves blood and lymph circulation, reduces edema. Stroking has a resorbing effect and reduces pain. Depending on the tasks of massage, it can have a calming (surface stroking) or toning (deep stroking) effect on the functional state of the nervous system. Stroking of reflexogenic zones gives the chance to influence the changed activity of various fabrics and internals, to improve trophic processes in joints.

*Rubbing* is a technique in which the masseur's hand with translational movements presses on the surface of the skin, forming a skin fold in the form of a roller, displaces it in different directions, stretches the underlying tissues, rubs in them pathological hardening and sealing.

#### *Physiological effect of rubbing*

Rubbing has a mechanical effect on the skin and underlying tissues and is a source of a large number of afferent impulses. The main mistakes that can occur when stroking: cold hands of a masseur; loose fit of the hand to the body; significant spreading of the fingers causes uneven pressure on the skin; a tense brush of the masseur, which quickly tires him and can cause pain to the patient; uneven or too fast pace; displacement of the skin instead of sliding on it; incorrect position of the patient or masseur general reactions. Depending on the technique, it can have a calming or arousing effect on functional state of the nervous system. Rubbing together with stroking for paralysis and paresis of central origin reduce the excitability of the motor cells of the spinal cord, relaxing the tone of tense muscles. Under the influence of rubbing the local temperature rises, blood and lymph circulation, elasticity, plasticity of muscles improve, which contributes to their softening.

At local increase in temperature metabolic processes in fabrics also improve, resorption of pathological consolidations in skin, a hypodermic basis, joint bags accelerates. Rubbing helps to increase tissue mobility, stretch scars and joints, reduce muscle hardening. Rubbing together with stroking are the main methods of massage in the treatment of diseases of the joints: after injuries and wounds, in inflammatory processes and effusions in the joints, in their deforming diseases, in diseases of the spine.

*Kneading* - the most difficult technique, in which, depending on the anatomical features of the massaged tissues (primarily muscles) are carried out: grasping, lifting, pulling, squeezing the tissues; capture and alternating compression of tissues; tissue compression and stretching.

The main errors that may occur during the squeeze: uneven or too fast pace of execution; loose fit of the hand to the body; painful performance; incorrect position of the masseur's hands in relation to the massaged area; incorrect position of the patient or masseur, compression and grinding of tissues.

#### *Physiological effects of kneading*

The physiological effect of kneading is more pronounced compared to other techniques and manifests itself in reflex, neurohumoral and local effects, which mutually determine each other. Kneading contributes to: normalization of the functional state of the central nervous system, neuromuscular system; raising the local temperature, which improves lymph and blood circulation, tissue trophism, stimulates redox processes, accelerates the resorption of scars and joints; recovery functional ability of muscles, improvement of their elasticity and contractility, acceleration of recovery of working capacity of tired muscles; improving extracardiac circulation, which facilitates the work of the heart; normalization of the function of internal organs and the tone of unstriated muscles.

**Vibration and shock techniques** are massage techniques that give the massaged tissues oscillating movements of different speeds and amplitudes. In this case, the mechanical oscillations of the elastic environment of the body in the form of waves propagate not only on the surface, but

also penetrate into the depths, causing oscillations of internal organs and deeply located vessels and nerves.

#### *Physiological influence of vibration and shock techniques*

Mechanical vibration has a profound and varied effect on tissues, especially the nervous system. Weak vibration causes excitation of incapable nerves, relatively strong - a decrease in nervous excitability. Depending on the place of application and the nature of the irritation, vibration and shock techniques cause distant reactions such as skin-visceral, motor-visceral, and viscerovisceral reflexes.

At a certain frequency, vibration can have an analgesic or even anesthetic effect, improve tissue trophism, accelerate the formation of calluses, normalize vascular and muscle tone. Vibration and percussion massage in moderate doses promotes the development of a complex of adaptive reactions in the body, the initial link of which is the irritation of the receptors of the vibrated area, then the process includes the hypothalamic-pituitary-adrenal system, which mobilizes the body's defenses. There are continuous and intermittent vibration.

#### **Classification of massage techniques (O.F. Verbov, 1966; addition L.O. Kunichev, 1982; A.A. Biryukov, 2008)**

Stroking Plane: superficial, deep, intermittent, continuous.

Embrace: superficial, deep, intermittent, continuous. Comb-shaped, ironing, rake-shaped, cross-shaped, pincer-shaped.

Rubbing: fingers, the supporting part of the hand, elbow or radius the edge of the arm. Comb-shaped, rake, sawing, hatching, crossing, pliers, planing.

Squeezing Longitudinal, the edge of the palm, transverse Longitudinal with a load, one and two fists, forearm, base of one or two palms, large finger.

Kneading: continuous, intermittent, longitudinal, transverse, ordinary, double fingerboard, double ring, forceps, felting, rolling, displacement, twitching, pinching, stretching, compression, pressing, comb-shaped.

Movements: active, passive, with resistance. Bringing, removal, bending, extension, circular, pronation, supination.

Vibration and shock techniques: continuous shaking, pushing. Intermittent chopping, patting, beating, punctuation, whipping.

#### **Massage procedure**

The procedure and course of massage are divided into 3 periods: preparatory, basic, final. During the preparatory period of the course (1-3 procedure) the masseur studies the features of the massaged area, adapts the selected massage technique to the patient, evaluates the body's response to the procedure and individual techniques, has a general, undifferentiated effect on skin, muscles, joints, nerve trunks.

In the main period (4-9 procedure) use a strictly differentiated method of massage, taking into account the clinical manifestations of the disease and individual characteristics of the organism.

The intensity of the impact is gradually increasing.

In the final period (10-12 procedure) continue the method of the main period, if necessary, teach the patient self-massage. During the last procedures, the intensity of the impact is slightly reduced.

The duration of the massage procedure (preparatory, main and final parts) depends on the clinical manifestations of the disease, the area of massage, the individual characteristics of the patient. In children, the elderly and debilitated patients, it is less than in adults. The average duration of the procedure 20 minutes.

The duration of the massage course is determined in each case individually. Usually appoint 10-20 procedures daily or every other day with breaks for 2-3 months. The number of prescribed

procedures depends on the nature and severity of the disease. The course of treatment can be small (10-12 procedures), medium (13-16 procedures), maximum (17-20 procedures).

### **Methodical instructions for performing a general massage**

1. The best time for a massage is the first half of the day, not earlier than 2 hours after a meal. Morning massage is indicated for neurasthenia to improve performance, metabolic disorders, especially obesity. In the morning, it is recommended to conduct a general gentle massage in debilitated patients.

2. At carrying out the general massage it is necessary to consider indications and individual features of the patient. Depending on its types and receptions of massage, dosage of receptions, frequency of influence, duration of massage of separate sites, etc. are defined.

3. The duration of the first massage procedures should not be more than 15-20 minutes and, if necessary, can be further increased to 40-50 minutes. In the first days of the general massage massage movements should not be intense. In order to adapt to the massage, its duration and intensity of massage techniques should increase gradually.

4. The duration of massage of individual parts of the body is decided individually. Approximate their ratio is as follows: back, neck, pelvis massage - 25% of the time of the whole procedure, legs - 30% (15% for each leg), arms - 30%, front surface of the chest and abdomen - 15%. Approximate distribution of time to perform certain techniques in the main period of treatment: stroking, vibration - 10% of the time, rubbing - 40%, kneading - 50%.

5. General massage for therapeutic purposes is recommended to be performed no more than 2-3 times a week. If after the massage the patient feels tired, complains of insomnia or other negative phenomena, it is necessary to reduce the duration of the massage, in more complex cases - to cancel it altogether. After a general massage, it is recommended to rest in a supine position for 15-30 minutes.

### **5.2. Theoretical questions for the lesson:**

1. What is the mechanism of mechanical impact of massage techniques on the human body?
2. What is the humoral mechanism of massage on the body?
3. What is the neuro-reflex mechanism of massage on the body?
4. What is the physiological effect of massage?
5. What indications and contraindications are followed when prescribing a massage?
6. Technique and methods of massage techniques
7. General massage and self-massage

### **5.3. Questions for self-control:**

1. Describe the scheme of general massage.
2. What recommendations are followed when performing a general massage?
3. Describe the sequence of application of techniques for back massage.
4. Describe the sequence of application of techniques for massage of the lower extremity.
5. Describe the sequence of application of techniques for abdominal massage.
6. Describe the sequence of application of techniques for chest massage?
7. Describe the sequence of application of techniques for neck massage.
8. Describe the sequence of techniques for massaging the upper extremity.

### **Literature:**

#### **Basic:**

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