



**PRACTICAL
GUIDE**
TO DYNAMIC
ELECTRONEUROSTIMULATION

Yekaterinburg, 2011

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CHAPTER 3

PRIVATE DENS METHODS

If a person keeps track of their health, it is difficult to find a doctor
who would know better what he needs for his health than he himself

Socrates

3.1. DENS FOR DISEASES OF THE MUSCULOSKELETAL APPARATUS

GENERAL PROVISIONS

1. DENS may be performed at any stage of the disease and at any stage of treatment.
2. The presence of temporary or permanent metal implants of osteosynthesis devices (endoprotheses, Ilizarov apparatus and others) is not a contraindication for the use of DENS.
3. An individual treatment plan (number and duration of procedures, course) must be designed for each patient. Zones and modes of impact are selected with consideration of the severity and localization of the lesion, as well as with consideration of concomitant diseases of other organs and systems.
4. DENS procedures can and should be performed in a number of cases "on demand"
5. Large joints (hip, knee, shoulder, elbow) are treated on three sides, excluding the flexor surface of the joint. Small joints of the hands and feet, wrists and ankles are treated on four sides.
6. With simultaneous damage to multiple joints (polyarthritis, polyarthrosis) at most two major joints are treated in one procedure. Treatment of several small joints of the hands and feet is permitted during a session.
7. The area of the swollen joint is treated in a stable manner - the device is rearranged from the bottom up. In the remaining cases treatment can be performed in labile, stable and labile-stable manners.
8. The ultimate goal of a course of DENS treatment is to achieve pain relief, improved blood and lymph circulation, which ultimately leads to the complete or partial (with severe lesions) restoration of joint function.

DEVICE IMPACT ZONE

Direct projection zone

1. Area of the affected joint(s) The area of the joint itself and surrounding areas above and below the joint of approximately the width of the hand is treated.
2. Area of affected muscles, tendons - direct projection of corresponding muscles and muscle tendons.
3. Projection of the cervical, thoracic or lumbosacral parts of the spine is treated for diseases and injuries of the corresponding parts of the spine.

Additional zones for course of treatment impact

1. Segmental zones. The lumbosacral area is treated in diseases and injuries of the joints of the lower extremities. Cervical area - in diseases and injuries to the upper extremities.
2. Reflex zones: areas corresponding according to Su Jok, auricular points, areas of the scalp.
3. Zones of amplification of systemic effect: Hegu, Zusanli, 7th cervical vertebra.
4. Special zones: zone of liver and intestine.
5. Universal zones (common action): paravertebral zones.

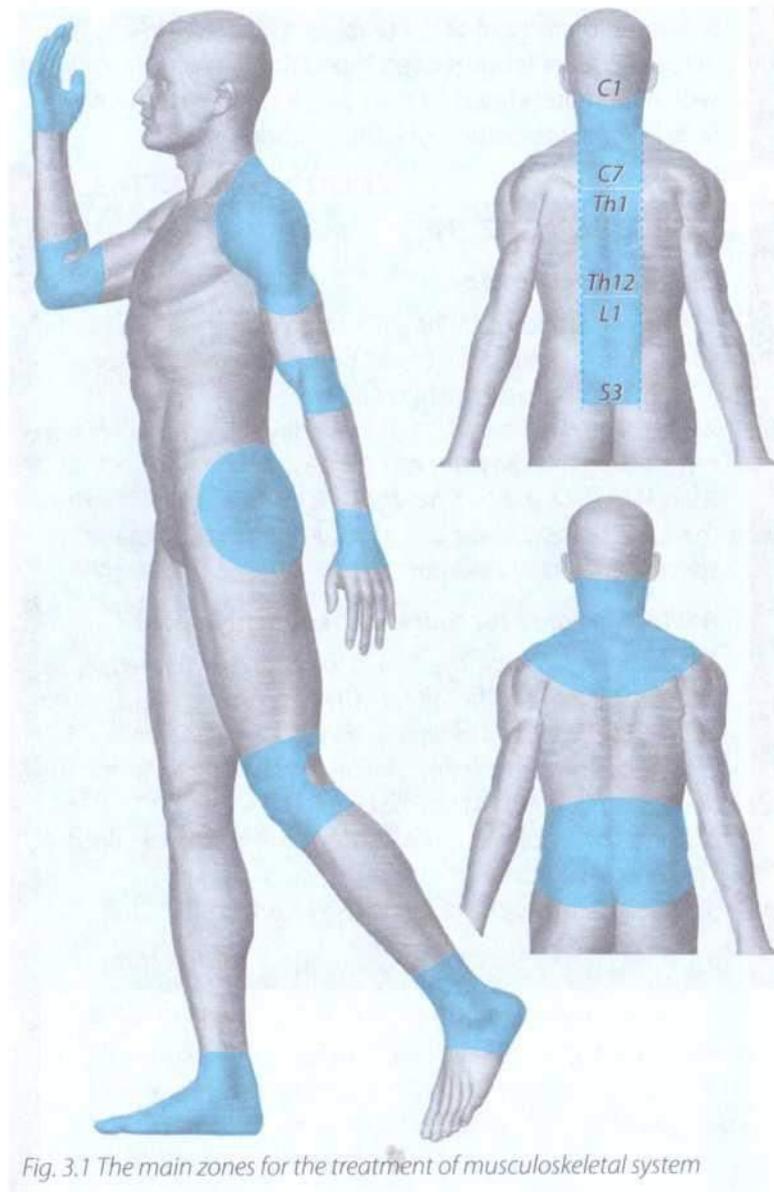


Fig. 3.1 The main zones for the treatment of musculoskeletal system

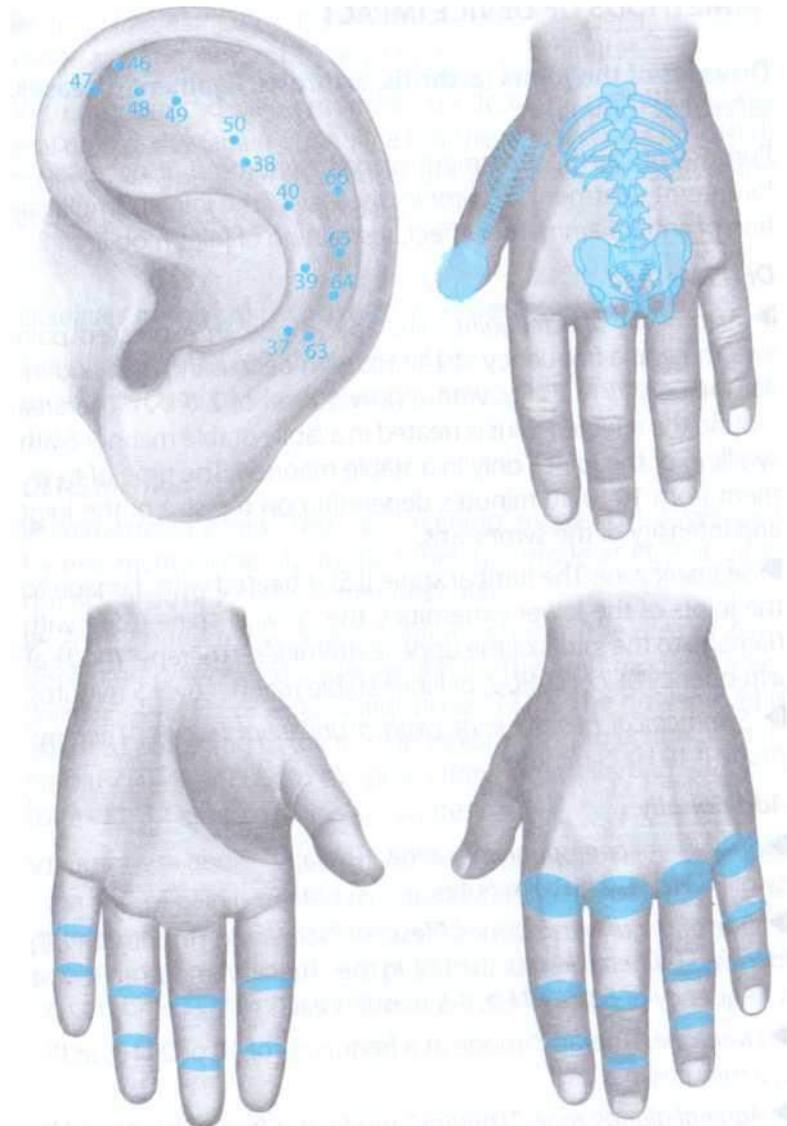


Fig. 3.2 Additional zones for the treatment of diseases of the musculoskeletal system

METHODS OF DEVICE IMPACT

Diseases of the joints (arthritis, arthrosis, ligament diseases, effects of trauma)

Purpose of DENS - treatment of pain syndrome (if necessary - long-term treatment of chronic diseases of the joints), amplification of anti-inflammatory effect, restoration of joint mobility.

DENS Method

- Area of the affected joint. "Therapy" mode: in expressed pain syndrome at a frequency of 140 Hz, with decreasing pain and inflammation - 77, 20 Hz, with a power level of 2 (PL-2). The area around the affected joint is treated in a labile-stable manner (with swelling of the joint - only in a stable manner). The time of treatment from 10 to 30 minutes depending on the size of the joint and intensity of the symptoms.
- Segment zone. The lumbar spine (LS) is treated with damage to the joints of the lower extremities, the cervical spine (CS) - with damage to the joints of the upper extremities. "Therapy" mode at a frequency of 77 Hz, PL-2, or labile stable manner over 5 minutes.
- Symmetrical healthy joint (with a unilateral lesion). "Therapy" mode if 10 Hz, 5 minutes.

Additionally

- Su Jok joint correspondence zone. "Therapy" mode at a frequency of 77 Hz, PL-2, 5-10 minutes.
- One of the universal zones. "Test" or "screening" mode at PL-2, followed by treatment of the LTZ in the "Therapy" mode at PL-2 at a frequency of 60 or 77 Hz, 3-5 minutes each.
- Liver zone. "Therapy" mode at a frequency of 10 or 20 Hz, at PL- 2, 5 minutes in a day.
- Adrenal glands zone. "Therapy" mode at a frequency of 77 Hz, PL-2, 5 minutes, or MED program.
- Auricular point (AP), offsetting the corresponding joint. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1, 2-3 minutes.

With pronounced pain syndrome "on demand" procedures several times a day (again during the day the affected joint is treated) are recommended. In the procedure 2-3 zones are treated, the course of treatment is 10-20 days

Diseases of the spine (posture disorder, scoliosis) *

The purpose of DENS - treatment of pain, normalization of muscle tone, reduction of the degree of deformation of the spinal column.

DENS Method

- Paravertebral zones. "Test" or "screening" mode at PL-2, followed by treatment of the LTZ in the "Therapy" mode at PL-2 at a frequency of 60 or 77 Hz, 3-5 minutes each.
- Zone of affected vertebral column segment (the area of pain, discomfort and/or area of deformation). "Therapy" mode at a frequency of 77 Hz or modulated mode "7710". The power level is adjusted according to the muscle tone: in the projection of spastic muscles -1 or PL-2; in the projection of muscles with reduced tone - PL-3. Duration of 15-30 minutes.

With pain syndrome "on demand" procedures are recommended - the area of pain is treated repeatedly during the day. The course of treatment is 15-20 days, repeated courses within 1-2 months until condition is stabilized. To potentiate the effects, DENS should be combined with physical therapy and massage.

Flat feet

The purpose of DENS - treatment of pain, normalization of muscle tone.

DENS Method

- Foot (back, plantar surface). "Therapy" mode at a frequency of 60 or 77 Hz, PL-2,5 minutes;
- 1st metatarsophalangeal joint and the transverse arch of the foot or the heel and longitudinal arch of the foot. "Therapy" mode at a frequency of 77 Hz (with pronounced pain syndrome - 200 or 140 Hz) at PL-2, 10-15 minutes;
- Shin. "Therapy" mode at a frequency of 60 or 77 Hz, PL-2,5 minutes;
- Segment zone - LS. "Therapy" mode at a frequency of 77 Hz, PL- 2, labile or stable method, 5 minutes.

Additionally

- Su Jock correspondence zone. "Therapy" mode at a frequency of 77 Hz, PL-2,5-10 minutes;
- AP 47, 46. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1, 2-3 minutes.

3.2. DENS FOR DISEASES OF THE NERVOUS SYSTEM

GENERAL PROVISIONS

1. An individual session plan is designed for each patient. The amount and duration of the procedures, zones and modes of action are determined according to the severity, localization of impairments, as well as damage to other organs and systems.
2. The cervical area is treated, with consideration of the blood pressure (BP) level and the presence / absence of intracranial hypertension. In the case of high or normal BP and with intracranial hypertension the CS is treated with a labile-stable method from the neck to the shoulder blades, at a frequency of 77 Hz or in the "7710" mode. With low BP - in the opposite direction at a frequency of 77 Hz or in the "77AM" mode.
3. After a stroke or traumatic brain injury the inclusion is recommended as early as possible in complex treatment for quick rehabilitation and to prevent the development of complications. NO treatment of the head is performed in the acute phase of hemorrhagic stroke.
4. Training of patients and their families on the basic rules and techniques of DENS for procedures at home is necessary.
5. Preservation or worsening of neurological symptoms, insufficient pronounced analgesic effect of DENS can be signs of a previously unknown disease. In these situations, consultation with a specialist is mandatory.
6. The ultimate goal of a course of treatment with DENS is to relieve or decrease the severity of pain, normalize muscle tone and improve blood circulation, which helps to prevent possible complications and accelerates the recovery process.

DEVICE IMPACT ZONE

Direct projection zone (DPZ)

1. Upper and lower limbs are treated for diseases accompanied by impaired motor functions and sensitivity of the limbs.
2. The cervical zone is used as one of the main areas in the treatment of patients with vascular diseases of the brain, with hemorrhagic and ischemic stroke.
3. Scalp zone - direct projection of the brain, the cerebral vessels. Is used in the treatment of headache, ischemic stroke rehabilitation. Furthermore, this zone is used in craniotherapy for diseases of the nervous and cardiovascular systems.
4. The trigeminal zone is used in the treatment of trigeminal neuralgia.
5. The parotid and temporal areas are used in the treatment of diseases associated with facial nerve damage.
6. Cervical, thoracic and lumbosacral areas are treated for injuries and diseases of the relevant parts of the spine.

7. Speech zones: zone around the mouth, submandibular zone are treated in cases involving speech disorders.

Additional zones for course of treatment

1. Segmental zones corresponding to the level of the damage.
2. Reflex zones: Su Jok correspondence zones, auricular points, zones of the scalp.
3. Zones of amplification of systemic effect: Hegu, Zusanli, 2nd cervical vertebra.
4. Special zones: zone of liver and adrenal glands.
5. Universal zones (common action): vertebral zone, trigeminal zone, forearm and hand, the lumbosacral zone.

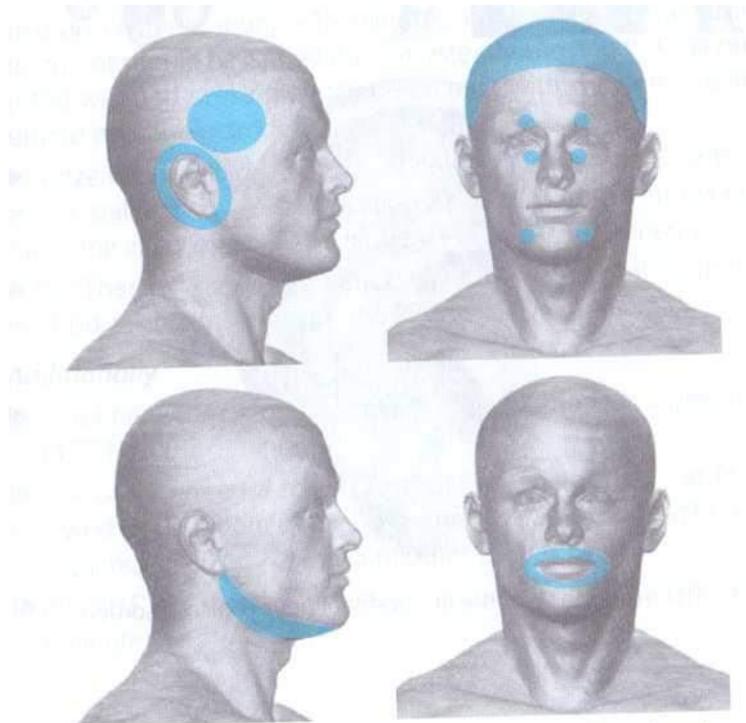


Fig. 3.3 The main zones for the treatment of neurological disorders

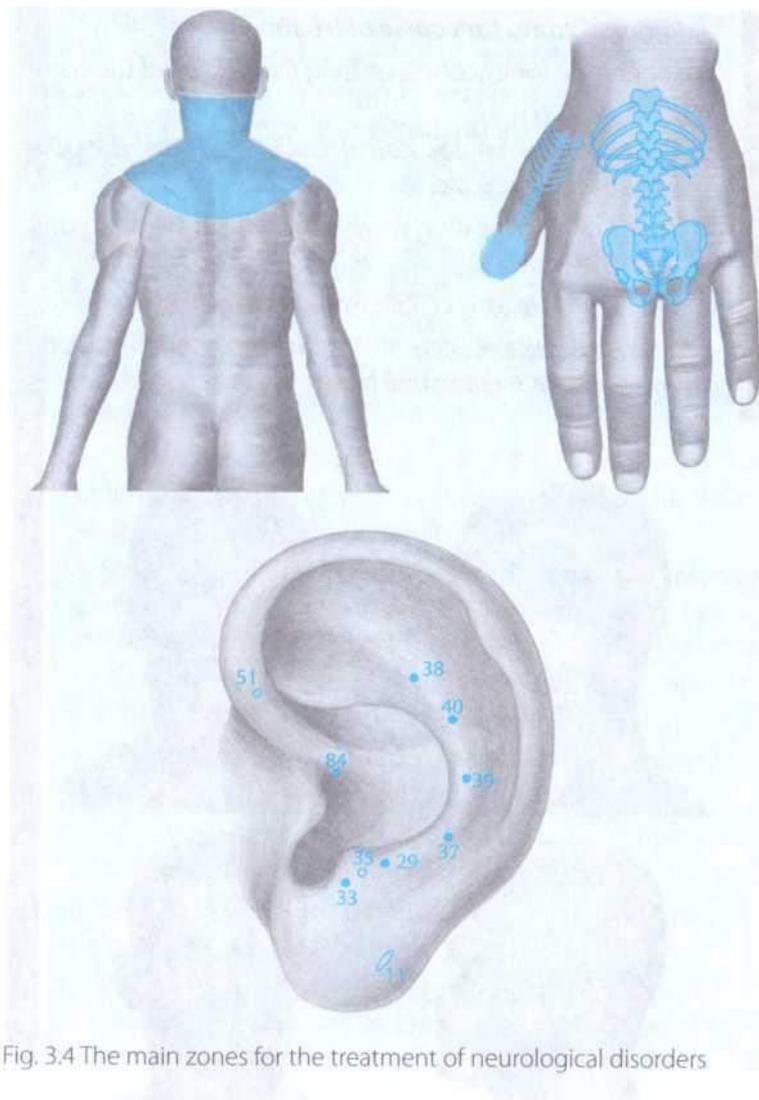


Fig. 3.4 The main zones for the treatment of neurological disorders

METHODS OF DEVICE IMPACT

Headache, dizziness (tension headache, intracranial hypertension, migraine, diseases and the effects of injuries of the cervical spine)

The purpose of DENS is to get rid of the headache or dizziness while conducting situational DENS, to improve health and ensure lasting effect with a course of treatment using the devices.

DENS Method

- The projection of pain (frontal, temporal, parietal, occipital region, etc.). "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method of application, 5-15

minutes. In the area of the scalp treatment should be carried out consistently, moving the hair out of the way and seeking electrode contact with the skin or with remote needle electrode.

- 2nd cervical vertebra. "Therapy" mode at a frequency of 77 Hz, PL-1 or PL-2, stable method of application, for 2-3 minutes; to further enhance the effect operate at a frequency of 9.5 Hz, 5-7 minutes;
- CS. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method, taking into account the BP level, 10 minutes.

Additionally

- Su Jok head correspondence zone. "Therapy" mode at a frequency of 77 Hz, PL-2, 5 minutes.
- One of the universal zones. "Test" or "screening" mode at PL-2, followed by treatment of the LTZ in the "Therapy" mode at PL-2 at a frequency of 60 or 77 Hz, 3-5 minutes each.
- AP 33,35,29. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1, 1-2 minutes.

In the procedure 2-3 zones are treated 1-2 times per day. The course of treatment is 10 days.

Back pain and neck: osteochondrosis, dorsopathies, musculo-tonic syndrome (periarthrites), the effects of trauma, inflammatory muscle disease

The purpose of DENS - to relieve pain and prevent its re-emergence, to stop or reduce the motor and sensory disorders.

With pronounced pain syndrome in the early days of aggravation "on demand" procedures are recommended several times a day (the area of pain is treated again within a day). Duration of the course is determined by the onset of effect and restoration of impaired functions (average 10 days).

DENS Method

- Direct pain projection. With pronounced pain syndrome - "Therapy" mode at a frequency of 200 or 140 Hz at the PL-3. For reduction of pain - 77, 20 Hz at PL-2. Area of pain is treated in a labile-stable manner. Treatment time is 20 to 30 minutes depending on the effect (reduction or alleviation of pain).
- Pain radiating zone (distribution of pain along the intercostal space, arm, or leg). "Therapy" mode at a frequency of 77 Hz, PL-2 in a labile manner, 10-15 minutes.

Additionally

- Su Jok correspondence zone. "Therapy" mode at a frequency of 77 Hz, PL-2, 5-10 minutes.
- Paravertebral zones. "Test" or "screening" mode at PL-2, followed by treatment of the LTZ in the "Therapy" mode at PL-2 at a frequency of 60 or 77 Hz, 3-5 minutes each.

- AP 37,39,40,38. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1, 2-3 minutes.

Trigeminal neuralgia

The purpose of DENS - to stop pain and/or prevent the recurrence of pain; reduce treatment time.

For removal of breakthrough pain DENS begins with the first harbingers of attack. With aching pain and after relief from an attack, duration of the course of treatment is 10-15 days.

DENS Method

- Exit point of the trigeminal nerve in the area of maximum tender-ness. "Therapy" mode at a frequency of 140 or 200 Hz at PL-2 or PL-3, stable method of application. For the reduction of pain - 77, 20 Hz at PL-2.
- Symmetric point of the trigeminal nerve (the healthy side). "Therapy" mode at 10 Hz with a PL-2, 5 min.
- C5. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method taking into account the BP level, 5-10 minutes.

Additionally

- Su Jok correspondence zone. "Therapy" mode at a frequency of 77 Hz, PL-2, 5 minutes
- AP 11,51,84. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1, 1-2 minutes.

Paresis of the facial nerve

The purpose of DENS - to restore nerve function, prevent complications and shorten treatment time.

DENS begins in the earliest stages of the disease and 3-4 procedures are carried out during the day, for 20-30 minutes.

DENS Method

- Temporal and parotid regions. "Therapy" mode at a frequency of 77 at PL-2 or PL-3, stable method of application.
- Symmetrical (healthy) side. "Therapy" mode at 10 Hz with a PL-2, 5 min;
- 2nd cervical vertebra. "Therapy" mode at a frequency of 77 Hz mode or "77 10" with the PL-1 or PL-2, stable method of application, for 5 minutes.
- CS. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method taking into account the BP level, 5-10 minutes.

Additionally

- Su Jok correspondence zone. "Therapy" mode at a frequency of 77 Hz, PL-2,5 minutes;

- AP 11,51,84. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1, 1-2 minutes.

Acute ischemic stroke (ischemic and hemorrhagic stroke)

The purpose of DENS - ensuring more rapid recovery and maximum possible recovery of impaired functions. Treatment of individual symptoms (pain, speech problems, motor and sensory disorders and so on.).

Method of DENS in the acute phase of cerebral circulation impairment

- Scalp in ischemic stroke. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method of application, pushing the hair back and seeking electrode contact with the skin for 10 minutes.
- 2nd cervical vertebra. "Therapy" mode at a frequency of 77 Hz mode or "7710" at the PL-1, stable method of application, for 2 -3 minutes.
- CS. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method, taking into account the BP level, 5 minutes.

Additionally

- Zone of the hands and forearms, feet zone "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method of application for 5 minutes.
- Lung project zone from behind. "Therapy" mode at a frequency of 77 Hz, PL-2, labile method of application, 10 minutes.
- Intestinal zone. "Therapy" mode at a frequency of 77 Hz, 3-PL labile manner in a clockwise direction, for 15-20 minutes.

The procedure is carried out 1-3 times a day (at most 2-3 zones per session) for 12-15 days. Repeated courses of treatment - with breaks in 2-3 weeks. In case of other (new) complaints during the treatment procedure, the next treatment should be of the DPZ.

Method of DENS in the recovery period after a cerebrovascular accident

- Scalp (for ischemic stroke). "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method of application, pushing the hair back and seeking electrode contact with the skin for 5 minutes. To enhance the effect - at a frequency of 5.5 Hz for 5 minutes.
- Area of the upper extremities. On the side of paresis the back of the shoulder and forearm are treated in "Therapy" mode, 77 Hz, 10 minutes. On the healthy arm the front of the shoulder and forearm are treated in "Therapy" mode, 10 Hz, 5 minutes.
- Zone of the lower extremities. On the side of paresis the front of the thigh and lower leg are treated in the "Therapy" mode, 77 Hz, 10 minutes. On the healthy leg the hamstring and calves are treated in the "Therapy" mode, 10 Hz, 5 minutes.
- Speech Zone (with speech disorders). "Therapy" mode at a frequency of 77 Hz or "77 10" with the PL-1 or PL-2, stable method of application, 10 minutes.

Additionally

- 2nd cervical vertebra. "Therapy" mode at a frequency of 77 Hz or modulated mode "7710" at the PL-1, stable method of application, for 2-3 minutes.
- CS. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method, taking into account the BP level, 5 minutes.
- Su Jok correspondence zones. "Therapy" mode at a frequency of 77 Hz, PL-2, 5 minutes.
- LS. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method of application, 10 minutes.
- Other areas of application (high blood pressure, constipation, etc.). - See the appropriate section.
- AP 33,35,29, 37. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1, 1-2 minutes.

The procedure is performed 1 time per day (no more than 2-3 zones per session) for 12-15 days. Repeated courses of treatment - with breaks in 2-3 weeks. In case of other (new) complaints during the treatment procedure, the next treatment should be of the DPZ.

Cerebrovascular disease, secondary parkinsonism, the consequences of head injuries and infections of the central nervous system

DENS Method

- Scalp. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method of application, pushing the hair back and seeking electrode contact with the skin for 5 minutes. To enhance the effect - at a frequency of 5.5 Hz for 5 minutes.
- 2nd cervical vertebra. "Therapy" mode at a frequency of 77 Hz or "7710" mode at the PL-1, stable method of application, for 2-3 minutes.
- CS. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method, taking into account the BP level, 5 minutes.

Additionally

- Su Jok correspondence zones. "Therapy" mode at a frequency of 77 Hz, PL-2, 5 minutes.
- One of the universal zones. "Test" or "screening" mode at PL-2, followed by treatment of the LTZ in the "Therapy" mode at PL-2 at a frequency of 60 or 77 Hz, 3-5 minutes each.
- LS. "Therapy" mode at a frequency of 77 Hz, PL-2, labile-stable method of application, 10 minutes.
- Other areas of application (high blood pressure, constipation, etc.). - See the appropriate section.
- AP 33,35,29,37. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1, 1-2 minutes.

The procedure is performed 1 time per day (no more than 2-3 zones per session) for 12-15 days. Repeated courses of treatment - with breaks in 2-3 weeks. In case of other (new) complaints during the treatment procedure, the next treatment should be of the DPZ.

Diseases of the peripheral nervous system (neuropathy, including diabetic, post-traumatic)

The purpose of DENS - treatment of pain, restoration of functional activity of the limb.

DENS Method

- Zone of the affected limb. "Therapy" mode, 77,20 Hz, with a PL-2. Treated in a labile stable manner downwards. The treatment time is from 10 to 30 minutes depending on the size of the lesion and intensity of the symptoms. To enhance the effect - at a frequency of 9.4 Hz for 5 minutes.
- Symmetrical limb (with a unilateral lesion). "Therapy" mode, 10 Hz for 5 minutes.
- LS is treated for injury to the lower extremities, CS - for injury to the upper extremities. "Therapy" mode at a frequency of 77 Hz, PL-2, or labile stable manner for 10 minutes.

Additionally

- Su Jok correspondence zone. "Therapy" mode at a frequency of 77 Hz, PL-2,5-10 minutes.
- Paravertebral zone or trigeminal zone. "Test" or "screening" mode at PL-2, followed by treatment of LTZ in "Therapy" mode, with a PL-2, at a frequency of 60 or 77 Hz, 3-5 minutes each.
- Adrenal glands zone. "Therapy" mode at a frequency of 77 Hz, PL-2,5 minutes, or MED program.
- AP offsetting the corresponding limb, part of the body. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1,2-3 minutes.

The procedure is performed 1 time per day, the course of treatment is 10-14 days. Repeated courses as needed.

Neurotic disorders (neurasthenia, seasonal depression), sleep disorders

The purpose of DENS - improve overall health, normalize sleep, increase efficiency.

The procedure is performed 1 time per day, the course of treatment is 10 days. Repeated courses - on request.

DENS Method

- Paravertebral zones. "Test" mode at PL-2. Search latent trigger points in the "Screening" mode with subsequent treatment in the "Therapy" mode at PL-2, at 60 or 77 Hz, for 3-5 minutes each.
- CS. In cases where it is necessary to obtain sedation (sedative), relaxing effect, a zone is treated using a modulated "7710" mode, with a PL-2, in a stable manner

for 10 minutes. In cases where it is necessary to obtain a toning effect, the zone is treated in "77AM" mode with a PL-2, in a stable manner for 10 minutes.

- Trigeminal zone. "Therapy" mode, 10 or 20 Hz, stable method, at PL-1, 30-60 seconds per point.

3.3. DENS FOR CARDIOVASCULAR DISEASES

GENERAL PROVISIONS

1. The presence of an implanted pacemaker is a contraindication to the use of DENS.
2. In severe cases, accompanied by intense pain in the heart, arrhythmia, sudden increase or decrease in blood pressure, consult your doctor or call for an ambulance. DENS is used as first aid until medical help arrives.
3. In many cases, DENS is a component of a comprehensive treatment and should be combined with drug therapy prescribed by the doctor.
4. Of considerable importance is the individualization of application of the DENS devices. The treatment regimen is prepared and adjusted to reflect the specific complaints and dynamics of well-being.
5. For hypertensive and hypotensive syndromes DENS is conducted in the cervical area (CS). Selection of the method for device movement and frequency of stimulation (77 Hz, "7710" or "77AM") occurs based on the blood pressure.
6. In the elderly with unstable blood pressure the first DENS procedures appropriately begin with the treatment of Su Jok microcorrespondence zones.
7. During the DENS procedure to reduce the initially high blood pressure (hypertensive crisis) it should be noted that blood pressure is reduced gradually. Re-measurement of blood pressure shall be performed no sooner than 20-30 minutes after the DENS procedure.
8. The ultimate goal of the DENS course of treatment is prevention of progression and exacerbation of disease, stabilization of blood pressure and improvement of blood circulation. A distinctive feature of this method is the possibility of procedures in patients with severe comorbidities (diabetes, obesity, etc.).

DEVICE IMPACT ZONE

Zones of direct projection of the heart and blood vessels (DPZ)

1. Zone of back and side projections of the heart. Used to treat heart pain.
 2. Zone of forearms and hands. With damage to the arteries treatment is carried out in a direction from the elbow to the fingertips, with damage to the veins - in the opposite direction - from the fingertips to the elbow joint.
 3. Zone of the legs and feet. With damage to the arteries treatment is carried out in the direction of the knee joint to the fingertips, with damage to the veins - in the opposite direction - from the toes to the knee joint.
 4. Cervical area zone. Treated according to the blood pressure level.
 5. Zone of front direct projection of the heart. Treatment is carried out in this area only for resuscitation if the patient is unconscious.
1. Additional zones for course of treatment
 1. Segmental zones, cervical, lumbar-sacral area, thoracic spine.
 2. Reflex zones: Su Jok correspondence zones, auricular points, areas of the scalp.

3. Zones of amplification of systemic effect: 7th cervical vertebra, 2nd cervical vertebra.
4. Special zones: Hegu, Zusanli, Sanyinjiao, Waiguan, Neiguan.
5. Universal zones (common action): trigeminal zone.

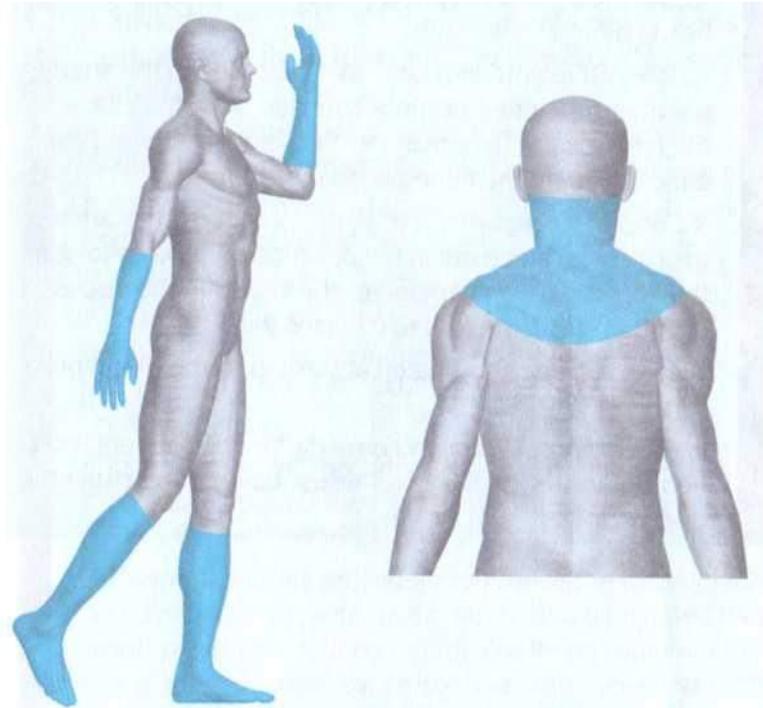


Fig. 3.5 The main zones for the treatment of diseases of the heart and blood vessels

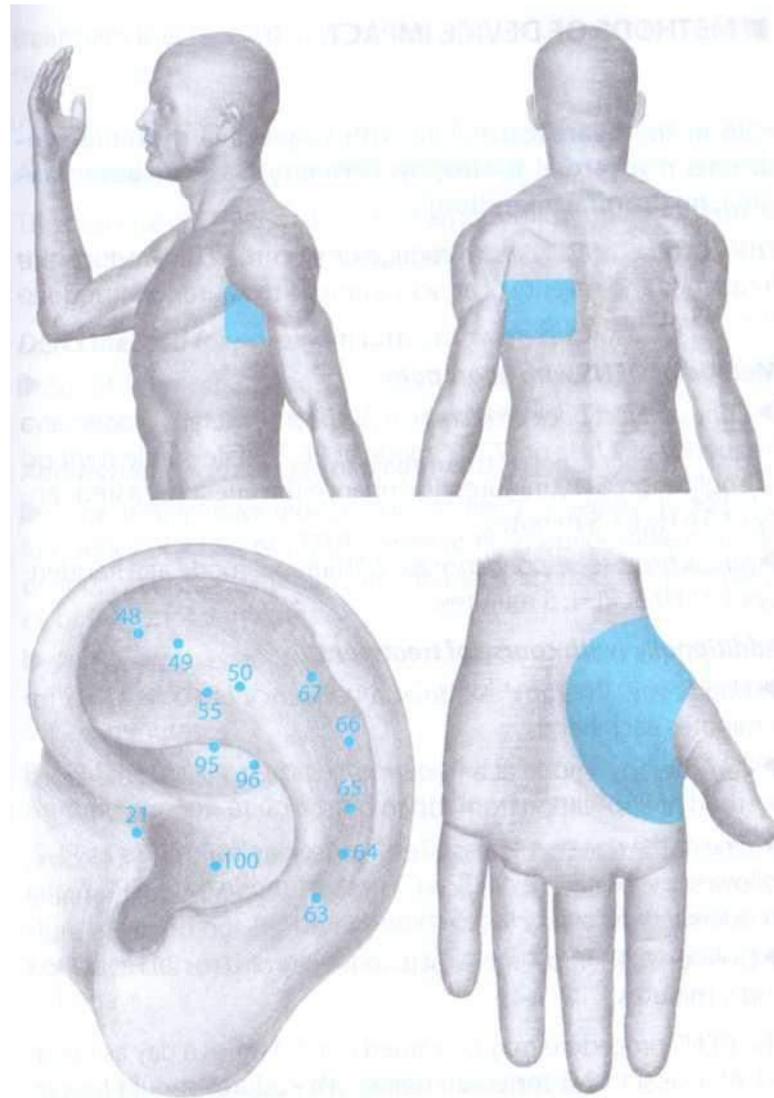


Fig. 3.6 The main zones for the treatment of diseases of the heart and blood vessels

METHODS OF DEVICE IMPACT

Pain in the heart (cardialgia with vegetative dystonia syndrome, myocardial dystrophy, coronary heart disease: angina, myocardial infarction)

The purpose of DENS is to reduce or stop the pain, reduce the frequency and severity of attacks, improve the autonomic regulation of vascular tone.

Method of DENS with heart pain

- Zone of direct back projection of the heart. "Therapy" mode at a frequency of 77 Hz or "7710" mode at PL-2, labile-stable method of application, 5-10 minutes. To enhance the effect - at a frequency of 9.4 Hz for 5 minutes.
- Su Jok heart correspondence zone. "Therapy" mode at a frequency of 77 Hz at PL-1,5 minutes.

Additionally (with course of treatment)

- Hand zone. "Therapy" mode at a frequency of 60 or 77 Hz for 5 minutes each hand.
- CS. "Therapy" mode at a frequency of 77 Hz, PL-2, stable-labile method of application from top to bottom, 5-10 minutes.
- One of the universal zones. "Test" or "screening" mode at PL-2, followed by treatment of LTZ in "Therapy" mode, with a PL-2, at a frequency of 60 or 77 Hz, 3-5 minutes each.
- Liver zone. "Therapy" mode at a frequency of 10 or 20 Hz, at PL-2 and 5 minutes.

The DENS procedure may be carried out 3-4 times a day as needed. At a session 2-3 zones are treated. Procedures should be carried out against the background of the standard drug therapy.

During the course of treatment a procedure is carried out 1 time per day and 2-3 zones are treated in the session. The course of treatment is at least 10 days. Repeat courses of treatment on demand.

Abnormal heart rhythm and conduction

The purpose of DENS is to improve autonomic regulation, reduce the appearance of arrhythmias, improve health with application of a course of treatment.

DENS method for paroxysm (attack), tachycardia

- Su Jok heart correspondence zone. "Therapy" mode at a frequency of 60 or 77 Hz, with a PL-2, 5-10 minutes.

Additionally (with course of treatment)

- Zone of direct back projection of the heart. "Therapy" mode at a frequency of 77 Hz or "7710" mode at PL-2, labile-stable method of application, 5-10 minutes. To enhance the effect - at a frequency of 9.4 Hz for 5 minutes.
- 2nd cervical vertebra. "Therapy" mode at a frequency of 77 Hz or "7710" mode at the PL-1 or PL-2, stable method of application, for 2-3 minutes.
- CS. "Therapy" mode at a frequency of 77 Hz, PL-1 or PL-2, labile method of application from the top down, 5 minutes.

Procedures should be carried out against the background of the standard drug therapy. During the course of treatment the procedure is carried out 1 time per day and 2-3 zones are treated with consideration of the specific complaints. The course of treatment is 10 days.

Arterial hypertension (hypertensive disease)

The purpose of DENS is first aid for a hypertensive crisis, reduction and stabilization of blood pressure during a course of treatment using the device.

DENS Method Hypertensive crisis

- 2nd cervical vertebra. "Therapy" mode at a frequency of 77 Hz or "7710" mode at the PL-1 or PL-2, stable method of application, for 2-3 minutes.
- CS. "Therapy" mode at a frequency of 77 Hz, PL-1 or PL-2, labile method of application from the top down, 10 minutes.
- Su Jok heart correspondence zone. "Therapy" mode at a frequency of 77 Hz, PL-2, 5-10 minutes.

The mean procedure time of 15 minutes. Repeated blood pressure measurement is carried out 30 minutes after the procedure.

DENS Method Course of treatment for hypertensive disease

- 2nd cervical vertebra. "Therapy" mode at a frequency of 77 Hz or "7710" mode at the PL-1 or PL-2, stable method of application, for 2-3 minutes.
- CS. "Therapy" mode at a frequency of 77 Hz, PL-1 or PL-2, labile method of application from the top down, 10 minutes.
- Project zone of the kidneys and ureters. "Therapy" mode at a frequency of 77 Hz, PL-1, labile manner, for 5 minutes on each side.
- Zone of the hands and forearms. "Therapy" mode at a frequency of 77 Hz or PL-1 PL-2 labile exposure method from above downwards - from the elbows to the fingertips for 5 minutes on one side.
- Adrenal glands zone. "Therapy" mode at a frequency of 77 Hz, PL-2, 5 minutes, or MED program.
- AP 55. "Therapy" mode at a frequency of 10 or 20 Hz, PL-1, 1-2 minutes.

In the procedure 2-3 zones are treated 1-2 times per day. The course of treatment is 10 days. Reduced dosage of medications or their discontinuation takes place only on the stabilization of blood pressure and only in consultation with the doctor.

Arterial hypotension

The purpose of DENS is to stabilize blood pressure, reduce the appearance of hypotension and increase efficiency.

It is recommended that 2 treatments be performed per day (morning and evening), and the course of treatment is 10 days. Repeated courses in spring and autumn.

DENS Method (morning)

- CS. "Therapy" mode at a frequency of 77 Hz, PL-2, labile bot- tom-up method for 10 minutes or modulated "77AM" mode with a PL-2, a stable method of application (via applicator DENS) for 5 minutes.
- Hand zone. "Therapy" mode, at a frequency of 77 Hz, with the PL-2, labile manner, in the direction from the fingertips to the wrist, for 5 minutes each hand.
- Trigeminal zone. "Therapy" mode, 10 or 20 Hz, with a PL-2, 20-30 seconds per point.

DENS Method (evening)

- LS. "Therapy" mode, at a frequency of 77 Hz, with a PL-2, stable- labile mode of treatment, 10 minutes.
- Foot zone. "Therapy" mode, at a frequency of 77 Hz, with the PL-2, labile method from the toes to the ankle for 5 minutes on each leg.
- Heguzone. "Therapy" mode at a frequency of 77 Hz, PL-2, 5 minutes or MED program.

Peripheral arterial disease (arterial occlusive disease, atherosclerosis, peripheral vascular disease, diabetic angiopathy, vibration disease, Raynaud's disease)

The purpose of DENS is improvement of arterial blood supply to the affected limb, prevention and treatment of vascular complications.

One procedure is performed on the day on which 2-3 zones are treated. The course of treatment is 10-14 days, repeated courses within 1-2 months.

DENS Method

- DPZ - zone from the elbow to the fingers or the area from the knees to the toes at the appropriate location of the lesion. "Therapy" mode at a frequency of 77 Hz, PL-2, labile or labile-stable method of application, about 10-15 minutes.
- Segment zone. LS - with injury to the lower extremities, CS - with injury to the upper limbs in the "Therapy" mode at a frequency of 77 Hz, PL-2 labile or stable manner for 3-5 minutes.

Additionally

- One of the universal zones. "Test" or "screening" mode at PL-2, followed by treatment of the LTZ in "Therapy" mode at a frequency of 60 or 77 Hz, with a PL-2, 5-10 minutes.
- Liver zone. "Therapy" mode at a frequency of 10 or 20 Hz, at PL-2 and 5 minutes.
- AP offsetting the corresponding part of the body (hand, foot). "Therapy" mode at a frequency of 10 or 20 Hz at PL-1, for 2-3 minutes, and AP 95, 96 at the frequency of 10 or 20 Hz, at PL-1, 1-2 minutes.

Diseases of veins and lymphatic vessels (varicose veins of the lower extremities, chronic venous insufficiency, chronic thrombophlebitis, lymphostasis)

The purpose of DENS is to reduce symptoms, improve venous outflow.

In the procedure 2-3 zones are treated, once a day, and the course of treatment is 10-14 days. Treatment with the device is NOT conducted in direct varices projection.

DENS Method

- Segment zone - LS. "Therapy" mode at a frequency of 20 or 60 Hz at the PL-1 or PL-2, labile-stable method of application, 15 minutes.
- Zone of the foot or lower leg. "Therapy" mode at a frequency of 77 Hz, at PL-1 or PL-2, stable method of application, 5-15 minutes on one limb, taking into account the severity of symptoms.

Additionally

- In the presence of trophic disorders DENS is conducted around the wound (trophic ulcers) in the "Therapy" mode at a frequency of 77 Hz at PL-1, PL-2 in a stable manner, 10 minutes.
- One of the universal zones. "Test" or "screening" mode at PL-2, followed by treatment of the LTZ in the "Therapy" mode at PL-2 at a frequency of 60 or 77 Hz, 3-5 minutes each.
- Liver zone. "Therapy" mode at a frequency of 10 or 20 Hz, at PL-2 and 5 minutes.

3.4. DENS FOR RESPIRATORY DISEASES

GENERAL PROVISIONS

1. For Respiratory diseases in acute cases accompanied by fever, consult your doctor.
2. DENS in the acute phase of the disease should be combined with the required drug therapy. DENS is conducted as an adjunctive treatment.
3. In the early days in acute diseases several treatments during the day with an interval of 1.5-2 hours is recommended.
4. For asthma attacks DENS is begun as early as possible as first aid.
5. In bronchial asthma and chronic obstructive pulmonary disease DENS is conducted against the background of the basic treatment prescribed by your doctor.

DEVICE IMPACT ZONE

Direct projection zone (DPZ)

1. Area of the nose and paranasal sinuses.
2. Submandibular zone.
3. Jugular fossa zone.
4. Front projection zone of the lungs. The upper boundary of the zone extends horizontally at the level of the clavicle. The lower limit of the zone forms a line connecting the front edge of the armpits. Treatment is performed with built-in electrodes from the periphery to the center towards the sternum, beginning with the lower sections of the zone, gradually rising to the clavicle. Treatment can be carried out with the help of the DENS-applicator.
5. Lung projection zone from behind. The upper boundary of the zone is at the level of the 1st thoracic vertebra. The lower boundary extends horizontally at the bottom edge of the 11th thoracic vertebra. Side borders - mid-axillary line on both sides. Treatment is conducted with a device with built-in electrodes, as shown in Fig. 3.8.

Additional zones for course of treatment

1. Segmental zones, interscapular region.
2. Reflex zones: Su Jok correspondence zones, auricular points, areas of the scalp.
3. Zones of amplification of systemic effect: He-gu, Zusanli, 7th cervical vertebra.
4. Special zones: zone of liver, intestine and adrenal glands
5. Universal zones (common action): correspondence point zone, trigeminal area

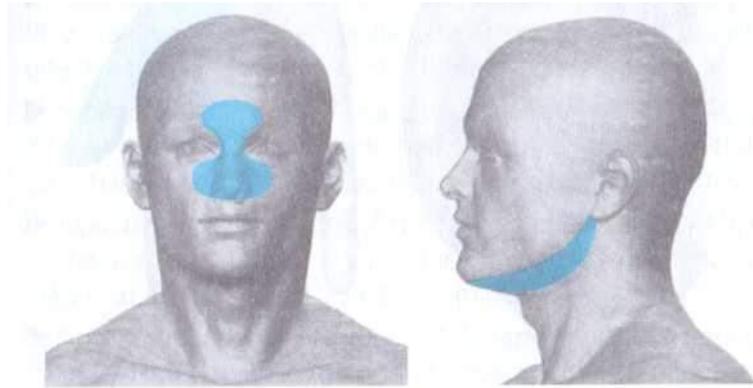


Fig. 3.7 The main zones for the treatment of diseases of the respiratory system

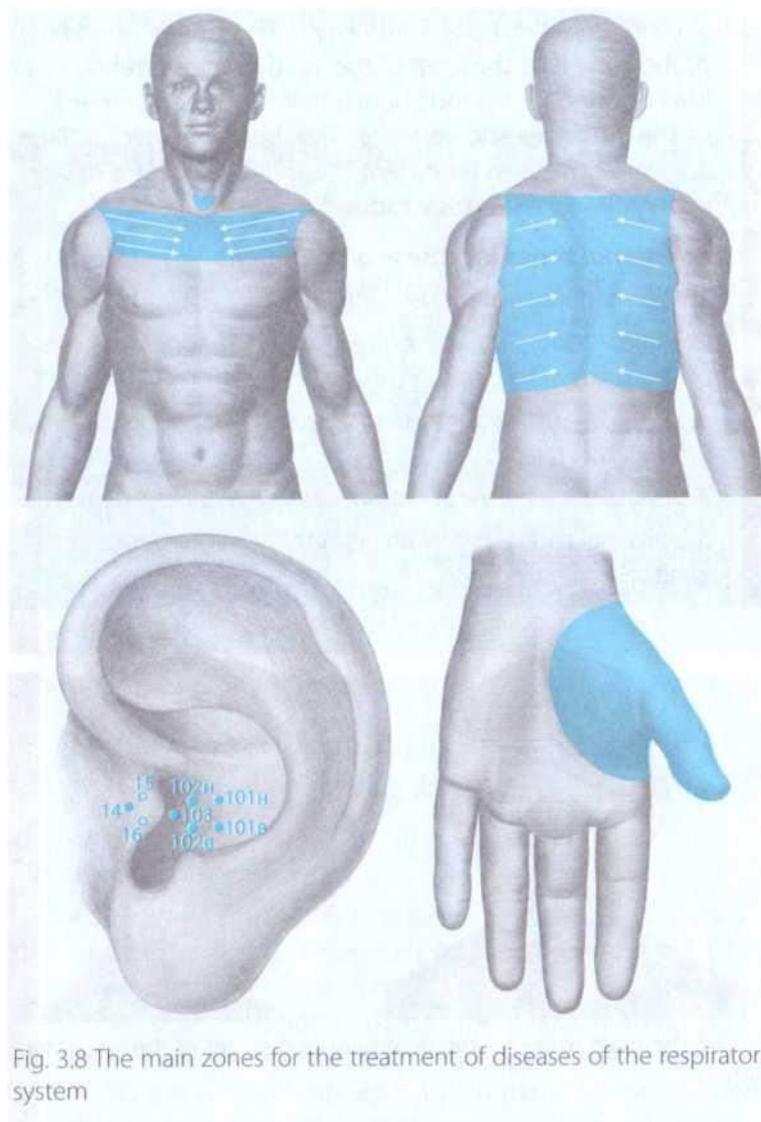


Fig. 3.8 The main zones for the treatment of diseases of the respiratory system