

**REHABILITATION ASPECTS OF WATER THERAPY IN MODERN MEDICINE**

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**Abstract**

In modern medicine, methods of physiotherapy are being improved every day, including hydrotherapy. Such a procedure as hydrotherapy has been known to people since ancient times. It should be said that at present, water continues to be actively used in various branches of medicine, as well as as a means of sanitation and hygiene. This article discusses the types of hydrotherapy and their role in rehabilitation.

**Keywords:** rehabilitation, physiotherapy, hydrotherapy, varieties of hydrotherapy.

**Introduction**

Hydrotherapy is one of the oldest methods of treatment with the help of water procedures. Hydrotherapy is also practiced for cosmetic and preventive purposes, it has a tonic effect on the body and improves overall well-being.

The therapeutic effect of hydrotherapy is achieved due to the influence of a complex of chemical and physical factors on the human body. The chemical effect is provided by exposure to the respiratory organs and skin receptors of herbal extracts and various medical preparations, which are selected according to indications. Physical impact is achieved due to the movement of a jet of water or bubbles of oxygen or air. The effect of temperature exposure depends on the temperature of the water used for the procedure. Cold water improves blood circulation and reduces pressure, warm water calms the nervous system and normalizes the digestive tract, hot water cleanses the body and skin of toxins and impurities, and also relieves pain in the joints and muscles. [1]

**Main Part**

Hydrotherapy gives positive results in the treatment of many diseases:

- Pathologies of the heart and blood vessels (ischemia, cardiosclerosis, angina pectoris, atherosclerosis, hypotension, atherosclerosis of the lower extremities, varicose veins, Raynaud's syndrome);
- Diseases of the digestive system (chronic hepatitis, gastritis, gastric and duodenal ulcers, colitis, chronic constipation in the elderly);
- Diseases of the respiratory system (bronchitis, pneumonia);
- Disorders of the nervous system (neuritis, insomnia, traumatic lesions of the nervous system, stress and depression);
- Cluster migraines;
- Diseases of the musculoskeletal system (osteochondrosis; arthrosis, arthritis, sciatica, injuries, intervertebral hernias);

- Skin diseases (lichen scaly, eczema, psoriasis, varicose ulcers);
- Pathologies of the female reproductive system ( infertility, painful menopause, salpingo -oophoritis);
- Pathology of the male reproductive system (prostatitis; lack of libido);
- Metabolic disorders, obesity;
- Swelling;
- Urinary incontinence.

Hydrotherapy in physiotherapy is also used to harden the body and strengthen the immune system. [2]

Despite the numerous beneficial properties of hydrotherapy, it has a number of contraindications:

- Chronic diseases in the acute stage;
- Fever (high body temperature);
- Malignant neoplasms;
- Benign neoplasms with a tendency to grow;
- Cardiovascular diseases (severe atherosclerosis, stage iii hypertension, atrial fibrillation, unstable angina pectoris, exertional angina above ii fc, heart failure ii-iii degree);
- A period of less than 1 year after suffering an acute myocardial infarction or stroke;
- Epilepsy;
- Mental illness that does not allow the patient to control their behavior;
- Systemic blood diseases;
- Tuberculosis in the active phase;
- Bleeding and tendency to them;
- Infectious and parasitic diseases of the skin;
- Weeping dermatitis;
- Thrombophlebitis, thrombosis;
- Pregnancy (especially 1st and 3rd trimesters). [2,3]

### **Charcot Shower**

The author of this procedure Jean Charcot ( Charcot Jean Martin ) - French neuropathologist, member of the National Academy of Medicine (1872) and the Paris Academy of Sciences (1883). Jean Charcot specialized in the study of non-standard methods of treatment of psychosomatic disorders. This water procedure contributed to the withdrawal of the patient from a depressive and neurotic state. Charcot shower is one of the hydrotherapy methods used to treat many chronic diseases. It is successfully used in cosmetology, regular sessions allow you to get rid of cellulite, excess weight. Currently, Charcot's shower is popular solely for the purpose of rapid weight loss, improving skin tone and eliminating cellulite of varying degrees. The principle of operation of the Charcot shower is based on the contrasting alternation of the temperature regime of water and different intensity of pressure. The essence of the technique is the impact on the body with a jet of water under pressure from 2 to 4 atmospheres. [3]

Hydromassage installation for Charcot's shower

All sessions are held according to the same algorithm:

- The patient enters a special shower cabin and stands at a distance of 3-5 meters from the shower pulpit. The distance is selected depending on the sensitivity, the closer - the stronger the impact will be, if the sensations are unpleasant, then you need to move away;

- Water is directed at the body, first with several weak jets for adaptation, then with one jet, the water pressure in which gradually increases;
- Successive effects are made on different parts of the body, first with hot water, then cool;
- The sequence is observed, processing begins with the legs, then moves up, first the front surface of the body, then the side and back;
- After exposure to each arm or leg, the water is directed to the stomach, the advancement corresponds to the position of large blood vessels;
- At the end, a contrast shower with different streams is turned on. The duration of the procedure increases from session to session. There should be at least two days between sessions. The total duration of the course is determined individually, on average it is 10-15 sessions with breaks between courses of six months. [3,4]

### **Underwater Hydromassage**

Underwater shower-massage is an effective procedure in medicine and cosmetology, which has a large number of indications for its implementation, has a beneficial effect not only on the functioning of internal organs, but also on appearance.

During the procedure, the patient's body is completely in the water, in a comfortable large bath, takes a relaxed state, becomes susceptible to external manipulations. The hydromassage treatment combines massage and relaxation. The patient must first simply lie down in warm water for 5-7 minutes. Then the specialist begins the massage with a flexible hose through which water comes out under a pressure of 1-4 atmospheres. With a jet of water, the massage therapist acts on all problem areas of the patient. With pain syndrome, this effect is important, since water jets, vibrating, painlessly affect the muscles mechanically and thermally. [4]

Underwater hydromassage is effective for overweight, cellulite, puffiness, osteochondrosis. The procedure also has a therapeutic effect on the musculoskeletal system, relieving muscle tension, pain symptoms in the spine and joints.

The duration of the procedure is 15-35 minutes, the multiplicity is daily or every other day. The recommended course is 10-20 sessions. Repeated course - after six months. [4,5]

### **Pearl Baths**

Pearl baths are a type of water massage. A special grate is placed at the bottom of the bath, through which air is supplied under pressure from the compressor. With the help of the interaction of water and air, many bubbles are formed that look like pearls.

In addition to pleasant sensations, pearl procedures normalize the excitability of the peripheral and central links of the nervous system, cause a sedative effect, restore muscle tonic activity, reflexively expand skin capillaries, which is useful for various skin diseases. The procedure is recommended for back pain, diseases of the spine and musculoskeletal system, stress and depression, as it has a calming effect and relieves excessive excitability of the body. Pearl bath stimulates blood flow, normalizes blood pressure. After a course of treatment, you can prevent seasonal diseases, improve mood and sleep quality, and achieve deep emotional and physical relaxation. [6,7]

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**Four-Chamber Baths**

Four-chamber baths are a hydrotherapy method based on the effect of water procedures on the patient's hands and feet without immersing the entire body in water. For four-chamber baths, mineral waters, infusions, decoctions of medicinal plants and medicinal preparations can be used.

The four-chamber bath consists of four vessels installed on a single platform, two of which are designed for immersing the hands, and the other two for the legs.

During the procedure, the patient sits on a special chair, immersing his hands and feet in special baths with water. During the four-chamber bath, the patient experiences relaxation, feels a slight burning sensation, tingling, "goosebumps" on the skin. [8]

Four-chamber baths have a general effect on the body, have a beneficial effect on cardiac activity and cerebral circulation, increase the activity of metabolic processes in the tissues of the arms and legs, reduce pain, signs of inflammation, and can be prescribed for contraindications to general baths with full body immersion.

Four-chamber baths are used to treat various types of arthritis (reactive arthritis, rheumatoid arthritis, gouty arthritis, etc.); deforming arthrosis; vasospastic disease of the hands; complications of diabetes mellitus (diabetic polyneuropathy and arthropathy); diseases of the peripheral nervous system (neuralgia, neuritis, neuropathy, neuromyositis); hypertension and symptomatic arterial hypertension; the initial stages of atherosclerosis of the vessels of the extremities; metabolic and trophic disorders against the background of varicose veins (without violating the integrity of the skin); for rehabilitation after fractures of bones of extremities.

The duration of the procedure is up to 30 minutes. The duration of the course is 6-20 procedures (depending on the doctor's prescriptions).

Baths or showers are usually used 1 hour before meals and 2 hours after.

Hydrotherapy is prescribed in courses of 10-20 sessions daily or every other day. A second cycle of treatment is recommended after six months. The procedures have an aftereffect - the result of the treatment is preserved for the next 4-6 months. [9]

**Conclusion**

The therapeutic effect of hydrotherapy is achieved due to the influence of a complex of chemical and physical factors on the human body. The chemical effect is provided by exposure to the respiratory organs and skin receptors of herbal extracts and various medical preparations, which are selected according to indications. Physical impact is achieved due to the movement of a jet of water or bubbles of oxygen or air. The effect of temperature exposure depends on the temperature of the water used for the procedure. Cold water improves blood circulation and reduces pressure, warm water calms the nervous system and normalizes the digestive tract, hot water cleanses the body and skin of toxins and impurities, and also relieves pain in the joints and muscles. The use of hydrotherapy methods in rehabilitation centers and multidisciplinary clinics in Uzbekistan will speed up recovery from diseases.

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