

**Federal State Budgetary Educational institution of higher education  
"North Ossetian State Medical Academy"  
of the Ministry of Health of the Russian Federation**

**DEPARTMENT OF GENERAL HYGIENE  
AND PHYSICAL CULTURE**

## **HEALTH SYSTEM S. KNAPE**

Methodological recommendations  
on the organization of independent work and study of the  
disciplines "Physical culture and sports" and "Elective course in  
physical culture and sports" of the main professional educational  
program of higher education – specialty program in the specialty  
31.05.03 Dentistry (partially implemented in English)

**Vladikavkaz, 2016**

**Andiev O.Kh., Rostiashvili E.Yu.**

"Health system of S. Kneipp", guidelines for students; North Ossetian State Medical Academy: Vladikavkaz, 2016. - 18 p.

A person who has made the decision to start healing his body must be familiar with the Kneipp hardening method. This method of dealing with ailments is generally available and has been successfully used for over a hundred years.

Sebastian Kneipp's therapy is usually defined as a system of healing and hardening measures, one of the types of hydrotherapy. In these methodological recommendations, the basics of the hydrotherapy method are clearly stated, as one of the acquired technologies for hardening the body.

Methodical recommendations are intended for conducting methodological lessons in physical culture with students enrolled in the specialties "General Medicine", "Dentistry", "Pediatrics", "Medical and Preventive Business", "Pharmacy". Compiled in accordance with the curriculum. The materials presented in the recommendations meet the requirements of the educational standard for medical students.

LBC 615.825

**Reviewers:**

- Tsogoev A.S. – Doctor of Medical Sciences, Professor of the Department of Internal Medicine No.5 FSBEI HE NOSMA MOH of Russia
- Tuaeva I.Sh. – Candidate of Medical Sciences, Associate Professor of the Department of Medical and Preventive Faculty of Epidemiology FBGOU VO SOGMA Ministry of Health of Russia

*Approved and recommended for publication by the Central Coordination  
Educational and Methodological Council of the  
FSBEI HE NOSMA MOH of Russia (Protocol №1 dated September 2, 2016)*

**PURPOSE OF THE LESSON:**

1. Learn health hardening according to the method of S. Kneipp.
2. To master the principles, technology and indications for its use.

**A STUDENT SHOULD KNOW:**

1. Means of hardening.
2. Means of hydrotherapy.
3. Indications and contraindications for hardening according to the method of S. Kneipp.

**A STUDENT SHOULD BE ABLE TO:**

1. Assess the correct dosing of the load when using hardening procedures.
2. Assess the effectiveness of hardening procedures.

**QUESTIONS TO BE SURVEALED:**

1. Hardening.
2. Hydrotherapy.
3. Three properties of water.
4. Seven means of hardening.
5. Means of hydrotherapy.
6. Rules for conducting hydrotherapy.

**RECOMMENDED LITERATURE:**

1. Malakhov G.P. "Tempering and hydrotherapy". - AST, 2006.
2. Kneipp S. "Hydrotherapy". - W.: "Phoenix", 2005.
3. Minenko I.A. "All methods of alternative medicine." 2004.

## **INTRODUCTION**

No matter how perfect medicine is, it cannot rid everyone of all diseases. Man is the creator of his own health! Instead of daydreaming about living water and other miraculous elixirs, it is better to lead an active and healthy lifestyle from an early age, temper, exercise and sports, observe the rules of personal and public hygiene - in a word, achieve true harmony of health in reasonable ways.

It has long been known that human health is 10–20% dependent on heredity, 10–20% on the state of the environment, 8–12% on the level of health care, and 50–70% on lifestyle. A healthy lifestyle is a balanced diet, exercise, quitting alcohol and smoking, and much more. Hardening also plays an important role.

## **HARDENING**

The human body is constantly exposed to atmospheric influences - sudden changes in temperature and humidity, sunlight, magnetic storms, etc. All this reduces the body's resistance to adverse environmental factors and causes diseases in some people, while others tolerate it easily. Anyone who tempered his body from an early age, accustomed it to temperature fluctuations, tolerates frost and heat more easily.

An important remedy in health promotion is **the hardening of the body**. Hardening is understood as a system of measures aimed at increasing the body's resistance to the action of unfavorable environmental factors. For each trainee, hardening procedures are strictly individual. The general rules for hardening are: regularity and continuity, a variety of products, mandatory dosage, taking into account weather conditions, time of year and day.

**The physiological essence of hardening** is to improve the thermoregulatory mechanisms. At the same time, a high coherence of the processes of heat production and heat transfer is achieved, ensuring adequate adaptation of the whole organism to the factors of the environment.

In the broadest sense of the word, this is a conscious regulation and restructuring of the thermoregulatory system of the body, aimed at increasing the potential of a person to resist the action of unfavorable environmental factors by way of a faster and more efficient inclusion of all links included in the functional thermoregulation system. In the process of hardening, the coordination connection between the individual functional systems of the body is improved, due to which its most perfect adaptation to the changing conditions of the external environment is achieved.

## **HYDROTHERAPY**

There are many ways to get rid of ailments, gain health and always feel at your best. At the same time, the cure for a variety of diseases is sometimes literally next to us - you just need to know how to use it! One of these methods is a unique hydrotherapy technique created at the end of the 19th century by the German healer Sebastian Kneipp.

In his youth, he fell ill with consumption. The disease developed rapidly, the doctors could do nothing to help him, and the young man found himself on the verge of life and death. Fortunately, at this time he got his hands on a book, which told about the simplest methods of treatment and hardening with water. Subsequently, Kneipp said with delight that this thin brochure was sent to him by Providence itself: he began to swim in the river, overcame an incurable disease and remained vigorous, strong and cheerful all his life.

Convinced of the wonderful properties of water, Sebastian Kneipp developed a simple and extremely effective technique that includes cold douches, baths, compresses and other wellness procedures (walking barefoot on water, dew, wet stones and grass). And today it is more than 100 years old, its unique system helps people get rid of a variety of diseases - even those that modern medicine gives in to.

"If there are no two leaves on a tree that are completely similar to each other, then even more so there are no two people with exactly the same fate. When I, dejected by years, cast a glance at what I have lived through and observe the meanders of my path, I see that I often stood on the brink of death; but then, contrary to all expectations, my path was illuminated with a ray of vocation, and I have all the more reason to value the wise and loving Providence, because it, by the path leading, according to human opinion, to death and death, showed me and a lot of people like me new sources of life . ", - this is how Sebastian Kneipp wrote about himself.

**Hydrotherapy**, which literally means "water treatment", includes a variety of medicinal uses of water. Moreover, water can be used both in the form of ice and in the form of a liquid or vapor.

The main goal of hydrotherapy is to stimulate the body's immune system or to detoxify it by changing the body temperature.

The use of water for hygienic, preventive and therapeutic purposes dates back to the times of deep antiquity (Assyria, Babylon, Ancient Egypt). Water is one of the oldest healing methods. And in modern conditions, hydrotherapy is undoubtedly an effective type of therapy.

### **THREE PROPERTIES OF WATER: DISSOLVE, REMOVE, STRENGTHEN**

**The entire system of S. Kneipp is based on the use of three properties of water** – softening, release of decay products and strengthening the body. According to S. Kneipp, diseases in the human body appear from stagnation and damage to the blood, namely from abnormal, incorrect blood circulation or from all kinds of dirt and toxins in the blood. Water, due to its versatility in use and the above properties, contributes to the healing of a person through certain actions.

**Softening** is carried out using steam baths and warm full baths of herbs; **selection** – with the help of wraps, douches, compresses; **strengthening** – with the help of cold baths, douches, washings.

The system assumes an integrated approach to the treatment of the whole organism as a whole, relying on all three properties of water and paying special attention to the sore spot. Any use of water must always be in accordance with the body of the convalescent. When prescribing water procedures, they adhere to the principle: the weaker and more moderate, the better and more effective. Those who begin to heal with water, people who are weak, especially very young and elderly people, as well as people of advanced age, sick people who are afraid of the cold, people who have little natural warmth, anemic and nervous are allowed to use lukewarm water. In other cases, only cold water is used, the colder the better.

### **GENERAL INSTRUCTIONS FOR THE APPLICATION OF WATER PROCEDURES**

With chills, fever, cold water should not be used. Each application should be done as quickly as possible (but without fear and undue haste), undressing and dressing should also be done quickly. The main thing is to perform the procedures exactly within the specified time range. After any water treatment, you should never wipe your body (except for the head and hands). On a wet body, immediately put on dry clothes and exercise (exercise, work, etc.) for at least 15 minutes. This is necessary to keep all parts of the body dry and evenly warmed. This rule does not apply to compresses and wraps.

#### **S. Kneipp used seven hardening agents:**

##### ***1. Walking barefoot (10-30 minutes);***

Hardening of an adult and a child can begin with simple measures, which consist in influencing the feet. It is useful to walk barefoot on wet grass, stones, step barefoot on fresh snow, or simply wash your feet with cold water first, then your knees and hands.

##### ***2. Walking barefoot on wet grass (15 - 45 minutes);***

For strengthening and hardening, you can walk barefoot on the grass. The grass can be moistened with water or covered with morning or evening dew. This method of hardening is universal for the elderly and young people in any state of health.

Walking on the grass every day for 15 to 45 minutes will tone the body and activate blood circulation. Kneipp advises not to wipe your feet after a walk, but to put on shoes on wet feet and walk quickly on sand or stones, gradually reducing the pace of steps. It takes 15 minutes for the legs to warm up again.

### **3. *Walking barefoot on wet stones* (15 minutes);**

For strengthening and hardening, you can walk barefoot on the grass. The grass can be moistened with water or covered with morning or evening dew.

This method of hardening is universal for the elderly and young people in any state of health.

Walking on the grass every day for 15 to 45 minutes will tone the body and activate blood circulation. Kneipp advises not to wipe your feet after a walk, but to put on shoes on wet feet and walk quickly on sand or stones, gradually reducing the pace of steps. It takes 15 minutes for the legs to warm up again.

### **4. *Walking barefoot on freshly fallen snow* (3-4 minutes);**

The third method of hardening is even more effective than the previous two - walking on fresh snow. This procedure is best done in early spring or early winter. The snow should be easy to compress and stick to your feet like dust. You cannot walk barefoot if a piercing cold wind is blowing. The old ice crust is also not suitable for walking: it can overcool the legs.

### **5. *Walking barefoot in cold water* (1 - 6 minutes);**

Walking on water is also beneficial for the general condition of the body. Walking on water not only strengthens us, but also improves the functioning of the kidneys, urinary tract, lungs, and removes gases. It is an indispensable remedy for headaches. At home, the procedure is carried out as follows: pour cold water into the tub and immerse your feet in it up to the ankles. Over time, move your legs down to your calves and knees.

Start hardening from 1 minute, then increase the immersion time to 5-6 minutes. The water should be as cold as possible. You can also add snow to it. After a walk, walk around, move around in a warm room (in winter) or outside (in summer). After hardening, the body must be warmed up. If you are in poor health, start the hardening procedure by immersion in lukewarm water, and then move on to cold water.

### **6. *Cold baths for hands and feet* (1-2 minutes);**

After certain illnesses, when blood circulation is impaired, hands or feet are often cold. It is recommended to temper them, then the blood begins to circulate faster. To do this, the feet are immersed in cold water up to knee level or higher. Then the same procedure is done for the hands. All hardening takes no more than a minute. In a large bathtub, you can simultaneously submerge both legs and arms up to the shoulders. To harden mainly the arms and legs, you can use the following method: immerse your legs up to the knees or slightly higher in cold water for 1 minute.

This method of hardening is also recommended for those who dry or break legs from the cold. The temperature of the rest of the body should remain normal (not lowered) during the procedure.

**7. Pouring knees** ((together with top pouring or separately) (1-2 minutes)).

Another way to harden Kneipp is to douse the knees. Knees are poured with a stream of cold water. This douche causes a rush of blood to the vessels of the legs. This method is good for treating fungus on the feet. So, it is known that in one patient of Kneipp's toenails turned into mush. After dousing his knees, his nails healed and hardened again.

It is good to add ice or snow to the water for dousing the knees, but it must be remembered that dousing the knees should be combined with other types of hardening or hydrotherapy, and the body should be warmed up when dousing. If other procedures are not applied, together with pouring over the knees, pouring cold water over the whole body or immersing hands in cold water, then this pouring will give a good result.

***For the treatment of S. Kneipp recommends using the following means:***

1. Compresses
2. Baths
3. Pairs
4. Dousing
5. Washing
6. Wraps in wet canvas
7. Drinking water

**1. Compresses**

**Top compress.** A large piece of rough canvas is folded in lengths 3, 4, 6, 8, 10 times so that it covers, starting from the neck, the chest and the entire abdomen. The canvas should hang slightly on the sides. The canvas folded in this way should be soaked in cold water (warm water can also be used in winter), squeezed firmly and then applied to the patient lying in bed. A woolen blanket is placed on top of the wet canvas or twice or three times a folded piece of dry canvas, in order to prevent the access of air from the outside, and on top of all this, another feather bed is placed. The compress is used from 45 minutes to one hour. The special purpose of the compress is to release gases accumulated in the gastrointestinal tract.

**Bottom compress.** The upper compress corresponds to the lower one, which is applied first if both procedures are carried out simultaneously. The lower compress is applied to the patient in bed so that it covers the entire back, a piece of canvas folded three or four times, moistened and squeezed out, lies so as to cover the area from the last cervical vertebra, along the spinal column, to the end of the back. The patient lies down on a wet canvas, wrapped in a woolen blanket and covered with a feather bed. It is used for 45 minutes to strengthen the spine, spinal cord, as well as back pain, shooting pain in the lower back.



**Compress – on the stomach.** The patient is in bed. A piece of canvas (pre-moistened in water and wrung out), folded four or six times, put on the stomach (stomach area and below) and cover with a woolen blanket and feather bed. It is applied from 45 minutes to two hours (after one hour the compress is renewed (wetted again). This compress helps with stomach pains, cramps and in cases where it is necessary to divert blood from the chest and heart.

## **2. Baths**

**Cold foot bath.** We stand for 1-3 minutes in cold water for caviar or a little higher. This bath serves to draw blood down from the head and chest. For healthy people, foot baths refresh (eliminate weakness) and strengthen. In particular, these baths are recommended in the summer for those who are engaged in heavy physical labor. Foot baths eliminate fatigue, bring peace and good sleep.

**Warm foot bath.** Foot baths work well when, due to soreness, weakness, insufficient body heat, there is too little or no reaction to the agents acting with cold. when cold water, due to anemia, does not allow the body to receive enough heat after the procedure. Foot baths are prescribed for weak, anemic, nervous people and provide effective assistance with any obstacles to proper blood circulation, rush of blood, headaches and throat pains, cramps. They direct, drive blood to the legs and act soothingly.

*A foot bath of hay dust is especially healing* (by hay dust we mean all the remains of hay - stems, leaves, flowers and seeds, even hay itself): a small amount of dust (3-5 handfuls) is scalded with boiling water, covered and allowed to cool to a temperature of 31– 32 degrees, after which they take a foot bath (15 minutes). We leave the dust in the water.

These kind of foot baths act in a permissive, excreting and strengthening manner and are of great benefit for various diseases of the feet: sweating of the feet, wounds, various bruises, tumors, gout, the formation of cartilaginous knots, suppuration between the toes, damage from tight shoes.

A foot bath made of hay can be replaced with a foot bath of oat straw - boil the oat straw for 30 minutes and keep the feet in the broth for 20–30 minutes at a temperature of 31–32 degrees. These foot baths are indispensable for softening all kinds of calcifications on the feet. Consequently, they turn out to be useful in the formation of cartilaginous nodes, with the well-known consequences of aches in the bones, joints, gout, calluses, with nails ingrown into the fingers and forming suppurations, blisters formed from walking, as well as wounded and festering legs.

The following note applies to all foot baths without exception: persons suffering from varicose veins, while taking foot baths, should never immerse their feet in water (or a decoction) above the calves, and the water temperature should not be higher than 31 degrees.

**Half-baths.** These are those baths in which the water covers the body no higher than the middle of the abdomen, approximately up to the stomach area.

Half-baths are taken in different ways:

1. You should stand in the water so that it reaches your knees and above.
2. Kneel in the water so that your thighs are covered with water.
3. Sit in the water so that the water reaches the abdomen, to the lower back.

All these three procedures are means of hardening (only cold water is used for no more than 3 minutes). Therefore, half-baths are useful for weak, convalescent and healthy people. S. Kneipp strongly recommended the third version of the bath to all healthy people. Thanks to this bath, weakness and ailments of the abdomen are destroyed in the bud, and entrenched diseases are eliminated. He believed that through half-baths, complaints of hemorrhoids, colic from gas, hypochondria, hysterics and other similar ailments rooted in a sick stomach of a person would significantly decrease, upsetting his mental strength.

**Cold sitz bath.** It is taken for 30 seconds to 3 minutes as follows: sit in the bath so that half of the abdomen, approximately to the area of the kidneys, and the upper half of the thighs are in the water. The lower thighs, shins and feet should be out of the water.

Cold sitz baths, together with half-baths, are the most significant and effective means used specifically to stimulate the activity of the abdominal organs. These baths promote the release of gases, digestion and regularity of the stomach, regulate blood circulation, strengthen the body. Such baths are allowed to be taken 2-3 times. Healthy people can do it more often.

**Warm sitz bath.** It is taken exclusively with decoctions of herbs for 15 minutes at a temperature of 30-33 degrees. The broth is prepared separately and poured into the prepared sitz bath.

From a decoction of horsetail, a sitz bath is used especially for convulsive, rheumatic sufferings of the kidneys and bladder, for kidney disease and stone disease, for difficulty in urinating.

From a decoction of oat straw – for all the suffering, accompanied by aching bones.

From the decoction of hay dust, it produces a more general effect and is used, in the absence of field horsetail and oat straw, for all the aforementioned sufferings of the abdomen, although its effect is weaker.

**A cold full bath for the healthy.** Such baths are taken in two ways: either they stand or lie in the bath so that the water covers the whole body, or they are immersed only up to the armpits and quickly wash the upper body. The duration of the bath is from 30 seconds to 3 minutes. It is important to adhere to the rule: do not take baths for more than the specified time.

Full cold baths are recommended above all for all healthy people, at any time of the year, in summer and winter, and it is these baths that help preserve and strengthen health: they cleanse the skin and promote its activity, refresh, revitalize and strengthen the entire body.

**Cold full bath for the sick.** The most important use of this bath is in the so-called "fever", i.e. in all diseases that are accompanied by a strong febrile state. Not all patients are able to use full baths; some are already so weakened that not only can they not get up or turn around without assistance, but they cannot even be lifted out of bed.

In these cases, washing (described below) of the whole body is applied, which can be done to everyone, even the weakest patient, in bed. Washing, as well as full baths, must be repeated whenever required by a high degree of heat or difficult, heavy breathing.

**Warm full bath for healthy people.** This bath is taken in two ways. In the first case, you need to immerse yourself in a bath filled with warm water (temperature 33–35 degrees) up to your neck and stay in it for 25–30 minutes. Then go to another bath with cold water or rinse with cold water for no more than 1 minute.

The second method – the bath is filled as in the first method, but the temperature should be 37 - 43 degrees (but not exceed 43 degrees and not lower than 35). It is necessary to enter such a bath according to the following scheme:

10 minutes in warm water

1 minute cold

10 minutes warm

1 minute cold

10 minutes warm

1 minute cold.

Thus, the duration of the entire bath is 33 minutes. It is imperative that the thermal procedure ends with a cold one. Cold water strengthens, lowering the elevated body temperature; it refreshes, eliminating excess heat; protects the body by closing pores and firms the skin. S. Kneipp recommended such baths when people, due to weakness, cannot decide to take cold baths and – for those who are too young, weak, anemic, nervous and for those people who have a tendency to convulsions and rheumatism. But in most cases, and this is always, for healthy people – only a cold bath.

**A warm full bath for the sick.** The difference between this bath and the previous one is that herbal decoctions are necessarily used. From a decoction of hay dust – to open pores and improve blood circulation. The broth is being prepared – a small bag of hay dust is dipped in a saucepan of hot water for 15 minutes.

A bath made of a decoction of oat straw has an excellent effect on kidney and bladder addictions, kidney stones, urinary sand and aches. This bath is stronger than the previous one. Prepare the broth – boil a "decent" bunch of oat straw in a saucepan for 30 minutes.

From a decoction of pine twigs (needles), the bath has a beneficial effect on the suffering of the kidneys and the bladder, but is weaker than a bath of oat straw.

Prepare the broth – take pine needles (the fresher the better), finely chopped branches, chopped cones and boil the whole mixture for 30 minutes. You can use mixed decoctions, such as hay and oat straw.

### **3. Pairs**

S. Kneipp did not use the bath (steam room), he believed that it was too much stress. He did not achieve the desired effect from the use of the Russian bath and in the future he never recommended it. And I used steam procedures for individual parts of the body (legs, head, etc.) – a container with hot water was covered with a blanket and in this place there was a part of the body for which the procedure was carried out. More details about these procedures can be found in his book.

#### **4. Dousing**

**Doused knees.** You can take the douche while standing or sitting on a chair. Pouring is done with a small watering can, which should be poured out faster and with a fuller stream, pour over both legs from toes to knees and even slightly higher. The next watering cans are then poured in a less strong stream, which should fall now lower and higher – on the legs and on separate places, especially on the kneecaps (in their middle), on the left and right sides of the calves so that the water flows down rather evenly down legs.

The last watering can is poured out unusually (with a stream), and through the larger opening of the watering can, in two or three steps, directly onto the legs, as if for washing. To douche the knees, use from 2 to 10 leis of water, each of which contains 13-15 liters. This douche has an electrifying, refreshing, firming effect. Convalescent, anemic, skinny and in general all those people whose legs do not have strong muscles, as well as beginners, are recommended to use no more than 2 lei of water.

**Pouring over the thighs.** Pouring over the thighs is that, in addition to those parts of the legs that are poured when poured over the knees, the thighs are also poured. The thigh douche action is nothing more than an enhanced knee douche action. This douche serves as a natural transition from dousing the knees to dousing the lower body.

**Dousing the lower body.** The first watering can poured over the back of the body, from the lower parts of the legs to the thighs and even a little higher, and the next watering can evenly poured over the front of the entire lower part of the body

**Back douche.** The first watering can poured over the entire back of the body, from the heels to the back of the head, the rest are poured, raising them higher and lower, with a strong or weak stream, on the one hand – on the entire back from the neck down to the sacrum bone and on the other side – from the left to the right shoulder blade. At the same time, the back is drenched, quite abundantly, but not excessively, in order to spare the spine itself, if possible, especially at first in very sensitive and irritable people. A back wash is always accompanied or finished with a quick wash of the chest, abdomen and arms. A back douche strengthens the spine and promotes circulation more than previous douches.

**Full dousing.** The first watering can is poured over the whole body. The next three watering cans of water are poured so that the stream falls on all parts of the body, especially on the back, on the back of the head and on both sides of it, then on the stomach area (solar plexus area).

**Top douche.** The doused person rests with both hands so that the upper part of the body takes a horizontal position and the water below the waist does not flow down the body. Pouring begins with the right hand. Water from the first watering can pours down the right arm and right shoulder to the left shoulder and the upper part of the left arm, and it should spread evenly over the entire back. The entire area to be doused should be doused 3-4 times. The more evenly the water spreads over the doused places, the easier dousing is tolerated and the sooner heat will appear in these places. Before and after dousing, you should quickly wash your chest.

**Pouring over hands.** It starts from the hands and continues to the shoulders, with each hand being poured on both sides. One watering can is enough to pour over one hand. This douche is used to strengthen the hands, to stop the stagnation of blood in the hands, to relieve inflammation and pain, to heal hands from aches and rheumatism.

**Head douche.** It is used to treat eye and ear diseases. First, douche the head and direct the stream around the ears to the cheeks and then to the closed eyes. Used one (at the beginning) – two watering cans.

## **5. Washing**

There is complete washing (of the whole body) and of individual parts of the body. The most important rule is to apply 1-2 minutes. Comparable to dousing, but a softer and shorter-term procedure.

### **Wet canvas wrap (wickel)**

*Head wickel.* The entire head, face and hair are moistened with water, but so as not to drip from the hair. After that, the whole head is tied with a dry scarf so that it fits snugly, does not allow air to pass through and that only half of the forehead and eyes remain open (but to enhance the effect, they use two scarves – a dry and a dry woolen scarf. Already after half an hour (rarely later) the hair dries out ...

After that, you can repeat washing and tying 2-3 times. After the last wickel, it is necessary to quickly and easily wash the neck and head with cold water and wipe them dry. With the help of a head wickel, headaches are successfully cured, mainly rheumatic – from a cold or a sudden change in temperature, a severe scaly rash on the head, a dry rash, small abscesses under the hair.

*Wickel for the neck.* It is used in two ways. First, we moisten the neck with our hand and wrap (not too tightly) 3-4 times with a dry linen towel (bandage) to stop air access to the moistened areas. The second – they take a towel, moisten it in cold water, wring it out and wrap it around the neck. A wet towel is covered with a dry one, and on top it is also covered with a woolen or flannel bandage (or any woolen cloth). The main thing is to keep air out of the wet towel. It is applied within one hour (after 30 minutes, moisten the towel in cold water again). Cervical wickel is prescribed for throat replacement.

*Shawl.* The shawl is used specifically for the chest and upper back. Shawl - a quadrangular woolen shawl, folded in half, is thrown over the shoulders, so that the greater angle is on the back (reaching the sacrum), the other two are crossed on the chest. It is used as usual - moisten, squeeze, apply and cover with a dry warm cloth on top for one hour (with renewal in cold water after 30 minutes). This wickel acts in a destructive and excreting manner and is used in case of fever, hot flushes, with incipient inflammation, accompanied by a febrile state, with accumulation of phlegm in the throat, in the respiratory organs and chest.

*Foot wickel.* It is used in two types: leg wrap to calf and leg wickel to knee. Wrapping the legs to the calves – put on wet socks, on top of them others dry and go to bed for 1–2 hours (it is possible for the night, waking up, and immediately

get rid of the wickel). This wickel is used when it is necessary to extract unhealthy juices from the legs, relieve fever with inflammation, and divert blood from the upper body. The foot wickel must not be mixed with the foot bath. The shorter the duration of the bath, the more limited its effect. Of course, a foot bath also attracts warmth and blood to the feet, but a cold or warm foot bath cannot produce the kind of spoiled juices that wickel produces from the feet.

*Foot wickel up to the knees* – wrap the legs with a wet towel just above the knees, on top - with a dry towel (preferably a woolen cloth) for 1-2 hours. It is used to remove heat from the upper part of the body, to eliminate great fatigue, to remove accumulated painful gases.

*Lower wickel.* We take a wet cloth, wrap the body from armpits to legs inclusive (arms and upper body are free), on top with a woolen blanket and then cover with a feather bed. It is used for diseases of the abdomen and legs. Duration 1–2 hours. The lower wickel has a warming, dissolving and releasing effect on the stomach. It is also used for tumors on the legs, rheumatism, bone aches, kidney disease, swelling of the abdomen, cramps.

*Short wickel.* Most often used. We take a wet canvas and wrap the body from armpits to knees, wrap it on top with a woolen blanket and cover with a feather bed. Duration 1-2 hours. If healthy people used a short wickel once a week or at least once every two weeks, they could completely protect themselves from many diseases. This wickel serves to cleanse the body and has a beneficial effect on the kidneys, liver and stomach, which it frees from the accumulated painful gases, from the accumulated lean juices and excess fluids. It is used for dropsy, heart and lung diseases, for stomach obstruction, for various headaches and throat pains.

*"Spanish cloak"* – a large wickel, which has an independent effect on the body. This "cloak" is a robe made of thick fabric or a long shirt with wide sleeves and bottom to the ground. Application - soak in cold water, wring out, dress, wrap in woolen blankets and cover with a feather bed for 1-2 hours. Wash the raincoat thoroughly after each use. "Spanish Cloak" opens pores on the entire surface of the body in the easiest and most effective way, draws out all impurity and mucus. This wickel is used in general catarrhal condition of the body, with phlegm, gout, aches, to prevent paralysis. If you immerse the cloak in decoctions of hay dust, oat straw, pine branches, then it works well against diseases (aches, stone disease, urine sand, etc.).

## **7. Drinking water**

S. Kneipp recommends following the golden rule – drink only when you feel thirsty, and never drink too much. It is not recommended to drink at lunch, as it dilutes gastric juice and impairs digestion. Whoever feels thirsty before eating, let him drink, but in moderation. Thirst indicates a paucity of juices. The gastric juice is quite thick and requires dilution. Unboiled spring water is very useful for the body.

***When carrying out hydrotherapy, you must adhere to the following rules:***

- ✓ *all procedures with cool or cold water (wrapping, rubbing, dousing, etc.) should be performed when the patient's body is warm. Pay special attention to the legs. If they are cold, then before using cold water, they must be warmed by rubbing or heating pads;*
- ✓ *The procedures are best done in the morning, immediately after waking up, or in the evening before going to bed. Wraps the abdomen, torso, calves and feet at night;*
- ✓ *do not carry out procedures before meals or shortly after;*
- ✓ *after the procedure, go to bed, take good cover, to the soles and knees put heating pads;*
- ✓ *if the condition improves after the procedure, you can lower water temperature;*
- ✓ *the colder the water, the stronger its effect on the body, therefore it is better to start water procedures with a higher temperature and gradually reduce it.*

Low temperature water is irritating or aphrodisiac with prolonged use. The lower the water temperature, the shorter the duration of the water procedure (In modern hydrotherapy practice, water with a temperature of up to 10 ° C is considered cold, higher than cool.)

***The peculiarity of the Kneipp method lies in the short duration of the methods of treatment, that is, everything is done quickly and cold water is used everywhere, especially when doused.***

A lot of doctors came to Kneipp to study his method of treatment on the spot. Kneipp hydropathic establishments (cold water treatment) were established everywhere with incredible speed, but Kneipp himself said that many call themselves Kneipp's followers and open Kneipp hydropathic establishments, but few people are really worthy and called to this cause.

Hydrotherapy, according to Kneipp, has a positive effect on the skin and muscles, which is associated with the ability of the skin to directly participate in the emotional reactions of the human body (joy, anger, fear) and have a reverse effect on emotions when its temperature changes.

The secret of Kneipp's success, in addition to the healing properties of hardening, lay in his psychological instinct. He knew how to find an approach to each patient: he acted on one by persuasion, on the other by a categorical order, but he was able to instill faith in everyone in the salvation of the treatment prescribed by him.

## **CONTROL AND TRAINING TESTS:**

### **1) Hardening is an increase:**

- a) the resistance of the organism through the use of biologically active additives;
- b) the body's resistance to psychological influences;
- c) the body's resistance to various external influences;
- d) the body's resistance to fatigue.

### **2) A means of preventing the negative effects of cooling organism or action of high temperatures:**

- a) hardening;
- b) playing sports;
- c) sauna;
- d) dousing.

### **3) Hydrotherapy is a treatment:**

- a) herbs;
- b) medicines;
- c) water.

### **4) To create optimal conditions for conducting physical education classes, as well as to increase the body's resistance to cooling, overheating, solar radiation, the following are used:**

- a) medical supervision and self-control;
- b) special physical exercises;
- c) unconventional healing forces of nature;
- d) unconventional physical exercise.

### **5) Means of hardening according to S. Kneipp (enter 3 correct answers):**

- a) applying ice;



- b) walking on wet grass;
- c) contrasting dives;
- d) walking on coals;
- e) walking on fallen snow;
- f) walking on water;
- g) cool compresses.

**6) What properties of water is based on hydrotherapy according to S. Kneipp (enter 3 correct answers):**

- a) moisturize;
- b) dissolve;
- c) cool;
- d) delete;
- e) strengthen.

**7) Options not suitable for hydrotherapy according to S. Kneipp (specify 2 correct answers):**

- a) compresses;
- b) baths;
- c) swimming in the ice-hole;
- d) pouring;
- e) wrapping;
- f) steam showers;
- g) drinking water;
- h) bath.

**8) Contraindications for the S. Kneipp system (indicate 3 correct answer):**

- a) winter start of hardening;
- b) the use of melt water;
- c) applying cold water in the morning;
- d) the use of cold water before bedtime;

- e) a sharp drop in water temperature;
- f) chills.

**9) When is the best time to do the procedures (indicate 2 correct answer):**

- a) in the morning, immediately after waking up;
- b) at noon;
- c) in the evening before bedtime.

**10) What are the golden rules for using water (specify 2 correct answer):**

- a) drink only when you feel thirsty;
- b) never drink a lot;
- c) drink a lot.