

## Dear friends

This booklet is issued for users of the device for regulative effect for physiological body systems INFERUM NBP-050. Is this device unique? Half-and-half. From the one hand, the method of non-invasive electrostimulation is not new, it is applied quite for a long time and its efficiency has been tested and proven many times. From the other hand, it was perfected for the first time, programs of treatment were checked and completed, and this device was made multifunctional, comfortable, compact and absolutely safe.

The content of this booklet helps to understand the principles of device's work and use the device with maximal efficiency.

20/80 mm. Hg OPTIMAL

<110/70 mm. Hg LOW

130/85 mm. Hg BORDER-LINE

140/90 mm. Hg HIGH

## THIS UNCERTAIN PRESSURE

*Cardio-vascular system is one of the essential systems of our body. It cannot stop for a second. To speak technically, the cardio-vascular system is a giant net of pipelines, which provides organs and tissues with oxygen and nutrients.*

If you stretch the vasculature into one line, it would be more than hundred thousands kilometers. It is true, that pressure is needed to pump the blood through this "pipeline". Life is impossible without arterial pressure. Moreover, everyone needs to have optimal arterial pressure for good state and long life.

Arterial pressure is measured in millimeters of mercury and is expressed in two figures – level of systolic pressure and level of diastolic pressure. These figures are the «upper» and the «lower» characteristic of pressure. Upper pressure is the force of blood pressure towards vascular wall during systole, heart compression.

Lower pressure is the force of blood pressure towards vascular wall during diastole, heart relaxation.

## HOW TO REGULATE THE PRESSURE?

If the heart is the only one pump of cardio-vascular system, it is quite logical to believe that more or less active heart work results in rises and drops of blood pressure because of increase or decrease of cardiac rhythm and volume of cardiac output.

Actually, is not true. Heart work affects the pressure insignificantly. Vascular tone has more effect towards pressure. Diameter of blood vessel is not constant. According to circumstances they can expand or coarct. They are fitted by unstriated muscles. Fast changes of pressure are caused by spasm or relaxation of these muscles.

The changeability of vascular tone is necessary for adaptation of men to environment conditions, loads and stress. However, when this changeability is excessive, when vessels change its diameter without reason, it is a problem. Fortunately, they can affect the vascular tone either with drugs, or with devices, that help to correct blood pressure and achieve appropriate figures.

In which cases the blood pressure should be corrected? For example, if blood pressure is low and a person feels bad. However, first, high blood pressure needs correction. High blood pressure is also called HYPERTENSION.

Hypertension, also known as high blood pressure is the main problem of global public health. Cardiovascular diseases, which amounts about a third of all fatal outcomes, cause almost 17 millions of fatal outcomes per year, hypertension complications cause 9,4 millions of all fatal outcomes worldwide per year.

Why the hypertension is so dangerous? First of all, the main danger is in its complications. High pressure destroys the whole body, even if the figures are not very big. The so called “target organs” suffer from high blood pressure.

## **«TARGET ORGANS» OF HYPERTENSION**

### **BRAIN**

Vascular spasm, caused by high blood pressure, damages the blood circulation in small vessels of brain and it can lead to acute and chronic malfunctions in future: memory impairment, concentration, sleep, ischemic stroke or cerebral hemorrhage.

### **HEART**

High blood pressure can cause cardiac abnormalities, coronary heart disease, that leads to heart attack, impaired cardiac function.

### **KIDNEYS**

Kidneys may suffer not only from high blood pressure; also, they are damaged by rapid pressure reduction. The pressure cannot be reduced for more than 25% from the initial level.

### **VESSELS**

High pressure damages delicate vascular walls. It can result in sclerosis of small and then large vessels, fragility of vessels and can lead to a risk of hemorrhage.

IT IS HIGHLY IMPORTANT TO KNOW, THAT COMPLICATIONS CAN PROGRESS FROM ALL FORMS OF HYPERTENSION – MILD, MODERATE AND SEVERE.

THE SOONER THE TREATMENT IS STARTED, THE LESS IS THE POSSIBILITY OF COMPLICATIONS. MAINTAIN THE BLOOD PRESURE ON AN APPROPRIATE LEVEL AND AVOID THE COMPLICATIONS.

## **HOW TO MAINTAIN THE BLOOD PRESSURE?**

EVERY PERSON, EVEN HE/SHE DOES NOT HAVE HYPERTENSION, SHOULD MEASURE THE PRESSURE FROM TIME TO TIME. IF THE DIAGNOSIS IS SET, THEY SHOULD MEASURE THE PRESSURE DAILY AND KEEP BLOOD PRESSURE DIARY.

MARK THOSE DAYS WHEN YOU FELT BAD WITH RED PENCIL, OR PUT OTHER SIGN. ALWAYS TAKE THE DIARY WITH YOU WHEN YOU VISIT A DOCTOR.

Everybody should have device to measure blood pressure at home - tonometer. Tonometer is necessary if your relative has hypertension. You cannot treat hypertension without constant control of pressure, as well as without blood pressure diary, which you should show to your doctor.

### **What kind of tonometer is appropriate?**

According to opinion of majority of doctors, the automatic tonometer with a cuff is the most convenient for home use. It is quite precise and simple in use.

Do not drink coffee, strong tea or smoke before measurement. Take off or weaken compressive parts of clothes – ties, belts, corsets.

Sit comfortable, put on the cuff (do not put it on the shirtsleeve), put the hand on the table, relax it, then press the button and wait while the measurement is continued.

Sometimes the results of measurements can differ on different hands. In that case, fix the highest result. Blood pressure control is the best prevention of hypertension complications.

### **WHAT ARE THE SIGNS OF HYPERTENSION?**

IF YOU FEEL GOOD, WHILE THE FIGURES OF BLOOD PRESSURE ARE HIGH – IT DOES NOT MEAN THAT YOU DO NOT HAVE HYPERTENSION. IT MEANS THAT YOU HAVE NO SYMPTOMS AND THE DISEASE COURSES IMPERCEPTIBLY.

They say that high pressure is always accompanied by headache, palpitation, ear noise or bad general state. However, it is not true. In truth, all these symptoms can be caused by other reasons. What symptoms does arterial hypertension have? Unfortunately, this disease does not have any obvious symptoms. The only way to detect hypertension is the measurement of blood pressure with tonometer. If your results are 140/90 or higher twice a year it makes the reason to suspect hypertension and to see a doctor.

That is why the person, who doesn't measure his/her pressure, risks to find out this disease in resuscitation, when the person would suffer from severe complications – heart attack, stroke, cardiac and renal insufficiency, thrombosis, etc..

Doctors insist that the concept "daily pressure" should be set aside. Daily pressure means the level of pressure when patient feels good. There is no such a term nowadays. Blood pressure can be low, normal and high. If you have high figures of blood pressure, you have hypertension, regardless your state.

Concept of "jumping pressure" should have the special emphasis. Doctors frequently hear the following "I don't have hypertension, only jumping pressure". Unfortunately, precisely these patients end up in hospital after stroke. The first reason is since "there is no hypertension", the patient does not have any treatment. The second reason is that abrupt change of pressure, either rise or fall, leads to a risk of stroke. It is strange, but the risk of stroke is less for those patients, who have stable high blood pressure, than for those who have unstable pressure.

### **IS IT TRUE, THAT HYPERTENSION IS UNCURABLE?**

Unfortunately, there are no scientific methods to treat hypertension once and for all times. This diagnosis is for all life, and if you have it, you should study how to live with it and keep it under control. There is an exception - when another disease causes hypertension.

You can avoid hypertension if you notice it at once, when you have no complications, target organs are not damaged, and there are no other signs. However, this would take serious efforts. You will have to get rid of excessive weight, limit salt and, what is more important, and increase your physical activity.

In addition, it is highly important to avoid stress, since it leads to increase of blood pressure. If the stress lasts for a long time, the high pressure becomes chronic. If we detect the hypertension late, it becomes not enough to change the way of life, it is important to control pressure and maintain it on the appropriate level with the help of treatment. It does not matter by what means you decrease the pressure level, it is more important that these means are effective, safe and available, since you need to use them every day during all your life.

HYPERTENSION IS A DISEASE FOR ALL YOUR LIFE, WHICH YOU CANNOT CURE. BUT YOU CAN AND SHOULD CONTROL IT TO AVOID COMPLICATIONS.

### **HOW TO TREAT THE HYPERTENSION?**

Every treatment starts from diagnosis. The treatment of hypertension starts from advanced survey: you need to detect the form of hypertension, level of complication risk, find out whether the target organs are damaged, and whether the hypertension is a symptom of other disease, which can be cured.

APPROXIMATELY 10% OF PATIENTS HAVE SECONDARY HYPERTENSION, IN OTHER WORDS OTHER DISEASE CAUSES IT. 90% OF PATIENTS HAVE PRIMARY OR ESSENTIAL HYPERTENSION, IN OTHER WORDS IT HAS NO OBVIOUS REASONS

### **TREATMENT OF HYPERTENSION, DEPENDENTLY THE DEGREE**

#### **I degree, pressure from 140/90 up to 159/99**

Patient has no complaints about state of health.

At the beginning of treatment, a doctor may recommend to change the way of life: saltless diet, physical activity increase, giving-up smoking, using of coffee and alcohol.

#### **II degree, pressure from 160/100 up to 179/109**

Patient complains rarely to palpitation, lassitude, flabbiness, nausea, etc.

It requires not only change of the way of life, but also additional treatment with the use of drugs.

#### **III degree, pressure from 180/110 and higher**

The pathological changes of health state.

Doctor prescribes drastic medicines and increases the dose. When the disease develops into a severe form, the surgery may be required.

**Physiotherapy is effective on every stage of treatment to correct the pressure, improve the state of health, decrease of medicament load and improve the quality of life.**

The patient needs consultation of the physician, general tests, blood test for sugar and cholesterol, consultation of ophthalmologist (the damage of vessels can be detected while examination of eye ground), cardiogram, and also daily monitoring of pressure – observing of pressure and pulse pending on round the clock. This survey allows detecting at what time the pressure increases, what are the maximal figures, whether the variations pending twenty-four-hours are big or not.

Sometimes, especially in a bad case, the patient may need to consult other doctors – neurologist, vascular surgeon, and nephrologist.

There are different ways of treatment:

- Amendment of way of life.
- Non-medicine therapy.
- Treatment with hypotensive drugs (to maintain the normal level of pressure).
- Application of physiotherapeutic device along with drug treatment and without drug treatment.

Modern way to treat hypertension does not direct to decrease high pressure, but to maintain the normal pressure. You can use treatment only by “requirement”, that is only when the pressure is high. Every increase of pressure has a bad impact for whole body. Rapid decrease of pressure with drugs is another bad impact, even more hard.

### **«REBOUND SYNDROME»**

Sometime the drugs you use may cease to help. This is so called “rebound syndrome” that is familiar to doctors. In that case, you should correct your therapy with your doctor. The usage of drugs along with physiotherapy (e.g. with device NBP-050) helps to postpone or even elude the “rebound syndrome”.

#### **REMEMBER THE SIMPLE MEANS TO PREVENT THE DEVELOPMENT OF HYPERTENSION**

- LIMIT THE SALT
- LOWER THE BODY MASS
- INCREASE THE ACTIVITY
- AVOID STRESS

#### **WHAT ARE THE MAIN PRINCIPLES OF DEVICE’S WORK?**

The device NBP-050 is assigned to treat reflexogenic zones of body on a wrist by an electric current of different frequencies. Electrostimulation is the multipurpose way to stimulate paratope structures, including bioactive points, and to circulate the range of control and adaptation mechanisms of body. They can measure the electric current by pulse height, managed by the impulse frequency, their duration, form, polarity, and finally, it is an adequate stimulus for excitable tissues.

The researches show, that during electrostimulation there is a change of impedance of subelectrode skin zone, as well as changes in heart rate variability, e.g. tension-time index by R.M Baevsky\*, indicating high sensitivity of the regulation system to the electrical impact. They can selectively influence the regulatory system of body to restore homeostasis during electrostimulation by changing of frequency while the impulse height can be hardly felt.

The type of disease and comfortability of device usage at work, at home define the choice of points of impact, during the course treatment. The stimulation is conducted with pulse packet, the quantity of pulse packets corresponds to a set of frequencies to correct the arterial pressure. The effectiveness of treatment depends on patient’s state before treatment and treated reflexogenic zones.

Patient does not get used to the treatment by electrostimulation, moreover the impact of device NBP-050 has low intensity and duration, which can increase tolerance and make procedures safe.

It is true, that regulation of arterial pressure depends on different facts, connected with genetics, stresses, nutrition and way of life. The increase of vascular tone or increase of rigidity of vascular walls, increase of intensity of neuronal regulation, quantity of sympathetic charges towards muscle vessels have certain dependences. The change in diameter of small vessels for a part of micron can affect quite essentially the blood pressure, since the total volume of bloodstream is changed. Blood pressure increases during vascular spasm and decreases during its relaxation.

Primarily, the device influences the vascular tone. At the same time, the device does not have any impact on the volume of cardiac output or cardiac rhythm.

Nervous system is a bioelectrical system; electric impulses transfer its signals. During the procedure, the device forms electric impulses that are similar to natural electric signals. They influence those central systems that control cardio-vascular system, particularly the vasomotor center in the medulla oblongata. It has two parts: pressory and depressory. Thus, there is a release of biologically active substances affecting the tonus of vascular nonstriated muscles.

Vascular nonstriated muscle cells respond by increase or decrease of tone, depending on the selected program.

#### **WHERE TO APPLY?**

The device is a mobile, lightweight, compact device that allows carrying out the procedure at any time, anywhere, both at home, and in health care institutions.

- The procedure is carried out without percutaneous penetration without causing risk of infection;
- The procedure is carried out without pain;
- Time of procedure on a chosen zone of wrist is 5-7 minutes, depending on program;
- The design of the device allows to operate it with one hand and thus facilitate the operation process;
- The patient does not need hospitalization to conduct the procedure.

#### **The device has two programs.**

Place the device correctly on the bioactive zone, since its size is about 10 millimeters and push the button to launch the needed program.

Treat the chosen zone with a wet tissue or cotton wool wad before the procedure to provide sufficient contact of electrodes with skin.

TO CORRECT BLOOD PRESSURE BY DEVICE NBP-050 PLACE IT ON YOUR LEFT WRIST AND IT WILL INCREASE THE PRESSURE OR DECREASE IT IN SEVERAL MINUTED DEPENDING ON ZONE AND PROGRAM CORRECTION SELECTED.

#### **HOW TO USE THE DEVICE TO TREAT HYPERTENSION?**

Sit or lay down before the procedure. It is prohibited to use the device for correction of blood pressure (as well as tonometer) in a standing position. Measure the blood pressure with the use of tonometer if needed.

Let us assume that the figures of blood pressure are high. In this case, place the device on the zone MC-6 on your left wrist and fasten the elastic bracelet. The stimulation of this zone has a sufficient sedative effect towards cardio-vascular system. The treatment of this zone helps to reduce the blood pressure. Pull forward your hand with palm up, count three centimeters from the wrist towards elbow on the mid-line of the elbow, and there will be the zone MC-6.

Push the button, placed above the upper panel of the device. The button is marked by three prominent points that makes them easy to find for the visually impaired patients or in the dark.

After pressing the button, you will hear a sound of buzzer and the white alarm LED lights up. You will also feel a slight impact of current on your skin. Most of the people whom we asked to describe this effect, describe it as quite pleasant. Sit or lie down comfortably, relax and think about something good. When the correction program is completed, you will hear a long sound of buzzer and the LED will turn off. Then you can remove the device from your wrist. Take a rest after the procedure for 20 minutes. Do not forget to clean the electrodes of the device after use and put it near the tonometer.

**The recommended course of treatment should consist of 1-3 procedures during 14 days.** Health state improves only after a course treatment, since the impact has cumulative effect.

#### **THE ROLE OF DEVICE NBP-050**

Experienced hypertensive patients, as a rule, have set of drugs, prescribed by a doctor. You should not stop taking these drugs. The device should be used in conjunction with them, to achieve the following purposes:

- improve the effectiveness of therapy;
- prevent crises or to cut them off;
- prevent decrease in the effectiveness of drug treatment;
- reduce (in future and according to a solution of physician) of doses or amount of drugs;
- reduce the impact of weather on health.

We pay your attention, that hypertension should be treated systematically and continuously. The device NBP-050 is perfect for this. You can use it on a daily basis at the time when your pressure usually increases.

Those people, who have suffered from hypertension for a long time and read popular literature about it, know that hypertensive patients are divided into those whose pressure often rises in the morning, and those whose pressure increases in the evening. It can be detected either by pressure diary, making measurements at least twice a day, either by daily monitoring, which is made by a doctor. In the first case, use the device in the morning to correct pressure, in the second - in the evening.

The most reasonable way to use the device by hypertensive patients is to use it every day at the time when the pressure is most likely to rise. People with a "long-standing" hypertension get good effect while conducting procedures twice a day – in the morning and in the evening, as well as when it is necessary.

**Before you start using the device, keep a pressure diary for 5-7 days to understand how your pressure varies throughout the day, what are the maximum figures and at what time of a day it rises. This would help to determine the optimum number of procedures per day.**

#### **FEATURES OF DEVICE WORK NBP-050**

##### **The effect of a stable pressure reduction**

The response of the body and, consequently, the effectiveness of the procedures are individual for each person. However, you should pay attention on the following points:

*The following categories of people need a long course treatment and/or termination of the factors causing the rise in blood pressure is needed (if possible):*

- people involved to work with emergency situations, noise, vibration, night shifts, increased attention, intense intellectual activity along with repeated heavy stress, negative emotions;
- those who have increased salt consumption - it is known that the excess of the daily salt rate more than 15 grams (3 teaspoons), provides fluid retention, increases the cardiac load, causing a spasm of peripheral arterial vessels;
- men over 40, women over 50 years old suffering from atherosclerotic vascular disease;
- patients with chronic kidney disease, diabetes, thyroid disease, infectious processes;
- smokers, since their vessels are damaged by the toxic effect of nicotine;
- alcohol abusers;
- people, whose family members suffer from essential hypertension, myocardial infarction and stroke.

The blood pressure of the previously mentioned people may not change after the first procedure or the course of treatment by the device. It is recommended to repeat the courses every month (for example,

from 1 to 14 day of each month), and in severe situations, use the device every day to maintain the pressure on the target figures.

If a patient has atherosclerosis, the effect of treatment is achieved not by the change of vascular tone, but because of sedative effects of electrical stimulation. All that factors contribute to the development of atherosclerosis (overeating, overweight, physical inactivity), and at the same time contribute to the occurrence of hypertension.

In case of chronic diseases, when the blood pressure was consistently high for many years against the background of diseases of the internal organs: kidneys, thyroid, adrenal, atherosclerosis and other reasons - the device should be used in course to normalize the vascular tone, which leads to lower blood pressure, improve state of health and reduce the drug load. When there are clear clinical presentations of hypertensive disease, it is necessary, first, to treat the affected organs. In case of severe damage of organs, the device is used in complex therapy, and has no effect towards the mechanism of development of certain diseases.

Those patients who have saved normal mechanism of self-regulation of vascular tone and whose blood pressure rises occasionally on the background of stress, emotional or physical stress, have more quick reaction (often even from the first session) on the impact of the device. After a course of procedures, the sustained reduction of blood pressure is observed due to changes in the level of anxiety and stress index of the sympathetic nervous system.

It is known that after the procedures part of the patients, despite the significant improvement in subjective state has a slight increase of blood pressure that is then gradually decrease to the comfortable values.

This effect is connected with the fact, that electrostimulation (even of low power) has essential impact towards regulating vital functions of the body, which can be distinguished as slight stress from external impact. Thus, due to the low adaptation level, i.e. low ability to respond to external impact is the result of the first exposure may differ from expected. Level of adaptation possibilities can be assessed numerically on such parameter as the total power spectrum of heart rate in the measurement of its variability. There is an evaluation method developed by professor, Ph.D. RM Bayevsky. The total power of the spectrum reflects the stamina that tends to decline with age, especially if there are organic changes in the regulatory system, which means that the reaction to an external stimulus may not always be adequate when its value is less than 1000 ms<sup>2</sup>. The value 2000 ... 3500 ms<sup>2</sup> is normal. Therefore, it is necessary to continue the course and observe stable effect at the end.

**At any hypertension degree, even if the pressure fluctuates during the day between high and low along with of antihypertensive therapy – conduct a course of procedures on MS-6 zone.**

#### **HYPOTENSION IS A BLESSING OR A CURSE?**

If you ask big group of people of an advanced age – e.g. 80-90 years, you will find out that the majority of them had low blood pressure. They had hypotension.

It is supposed to be true, that hypotension is a pass to a long life. That is a mercy. However, if you ask young hypotensive patients whether they feel good or not, you will see that it is not. Weakness, fatigue, dizziness, cold hands, sometimes even fainting - this is not a complete list of complaints of hypotensive patients.

That is why the answer what is hypotension – blessing or curse, depends on age. A young man, who does not think of long life, wants to feel good, and consumes that low pressure is a curse.

Elder hypotensive patient who get additional 10-15 years of life due to hypotension would adhere to an opposite opinion. Most hypotensive patients drink a lot of coffee. It gives only a short-term effect, at the



same time breaking the night's sleep and thus worsens general state of health, and hypotensive patients sometimes simply do not have energy to exercise. The only dream of any hypotensive patient is to save hypotension advantages in terms of longevity, but feel like a normotensive. Now they have such an opportunity. We will tell about it in the chapter devoted to the correction of low pressure with the device AVR-051.

### **IS IT POSSIBLE FOR HYPOTENSIVE TO BECOME A HYPERTENSIVE?**

Often, when we ask a patient "what is your pressure? » we hear in response that usually he or she has low pressure, but recently it has begun to rise. Indeed, the pressure of many hypotensive patients rises and becomes higher, typical for people with mild or moderate hypertension.

The probability to get hypertensive disease for those, who in was hypotensive when he was young, is about the same as for normotensive. However, hypotensive patients suffer from hypertension much worse than those who had previously normal pressure. Even when the figures around 140/90 they can have a real hypertensive crisis. This happens because their vascular system is adapted to low blood pressure and high pressure completely disorganize it.

### **HOW TO USE THE DEVICE TO TREAT HYPOTENSION?**

In contrast of hypertension, hypotension is not a disease. It is genetically determined feature of the vascular system. If the pressure is 100/60, and person feels good - everything is fine, there is no need to use the device. However, hypotension often causes many unpleasant symptoms: deterioration of emotional state, weakness, dizziness, feeling of heaviness, pallor, etc. Furthermore, hypotensive patients often have problems with the awakening in the morning.

They should conduct treatment with the device only in case the patient feels bad. So, if you feel dizzy, have cold hands and feet, do not want to work (they should distinguish those attacks from usual laziness), have troubles in awakening in the morning, do the following:

- place the device on zone TE-5, on the face of left wrist;
- do not forget to wet the skin under electrodes to provide better contact;
- fasten the elastic bracelet and push the button;

If you use the device to wake up in the morning, but you cannot open your eyes, find the button on the touch, it has one prominent point.

You will hear a sound signal, white light is on, and then you can relax during the procedure;

- after correction of the program is over, you will feel much better;
- as hypertensive, hypotensive patients are also recommended to take the device with them.

The pathogenesis of hypotension is the disorder of the neurohumoral system, which regulates vascular tone. The stimulation modes for hypotensives should give energy. These modes include modes with amplitude modulation of high frequencies – 77 Hz and 140 Hz - lower – with frequency  $4 \div 5$  Hz, which increase centralization of regulation of autonomic tone and causes an increase of index voltage, thereby causing an increase of both systolic and diastolic blood pressure.

Zone TE-5 is situated also on the left wrist, but on the other side – face side. Pull forward your hand with palm down, count three centimeters towards elbow, and find the point TE-5.

TE5 has a regulatory effect on the cardiovascular system, the nature of the effect is very close to the MC6, but has, in contrast to it, not a sedative, but mild toning effect. It has a stabilizing effect on vascular tone under atmospheric pressure fluctuations. It is used to treat headaches, vegetative-vascular dystonia with blood pressure fluctuations.

**The recommended course of treatment should consist of 1-3 procedures during 14 days.** Health state improves only after a course treatment, since the impact has cumulative effect.

### **WHAT TO DO IN CASE OF FAINT?**

People with low blood pressure are prone to fainting. Thus, in contrast to collapse, faint is not accompanied by a critical pressure drop. It occurs when the sufficient amount of blood does not arrive to the vessels of brain and this effect is called "anemization of brain vessels."

If someone has fainted, try to catch the falling person, so he could not be injured, act calmly and do not panic.

- **Call the ambulance!** Place the victim on his side, while he or she becomes conscious. It is necessary to avoid suffocation.
- Push away the scaremongers. Some of these people may start doing cardiac massage to a living person.
- As soon as the person wakes up, turn him on his back. Do not place anything under the head, let the head stay lower. On the other hand, place something under legs to let blood vessels of the brain fill with blood. Let him lie until he can stand up. It is necessary to get up smoothly, without sudden movements.
- Do not use a solution of ammonia to return consciousness, you can burn the nasal mucous membrane.
- When a person finally comes to consciousness, give him tea or coffee.
- Measure the blood pressure. If it is still low, use the device NBP-050 to normalize the blood pressure.

### **WHAT ONE SHOULD TO DO DURING HYPERTENSIC CRISIS?**

HYPERTENSIC CRISIS IS A LIFE-THREATENING CONDITION CONNECTED WITH THE RISE OF BLOOD PRESSURE.

Hypertensive crisis is characterized not only by pressure figures, but also by symptoms. They can occur at relatively low-pressure figures of one person and cannot appear at very high of another.

Specific symptoms of hypertensive crisis are the following: headache, dizziness, "dots" in the sight, blurred vision, shortness of breath, pain in chest, nausea, convulsions, loss or opacity of consciousness.

The first thing to do with these symptoms is to measure blood pressure. You should immediately take measures during crisis, because it can result in such complications as heart attack, stroke, pulmonary or brain edema.

Things to do:

1. Let the patient to sit in reclining position, undo the constraining clothes, and provide complete rest.
2. Call the ambulance. Update information about the medicines taken and their availability.

3. Put on the hand the device NBP-050 and turn on the pressure reduction program. An important property of this device is that it does not reduce the pressure abruptly. The abrupt decrease of pressure during crisis is unacceptable!

4. After the crisis (especially the first), the patient must be supervised by a professional or hospitalized. It is important to understand that the emergence of crisis talks about the extremely unfavorable duration of hypertension.

### **IS IT POSSIBLE TO USE THE DEVICE ALL THE TIME?**

As every device, which has impact on health, the device NBP-050 has contraindications, that is, there is a list of conditions under which the use of the device is prohibited (absolute contraindications) and the list of states where usage is possible after consultation with a specialist (relative contraindications) .

#### **ABSOLUTE CONTRAINDICATIONS:**

- an implanted pacemaker;
- individual currency intolerance;
- children under 14 years.

The deterioration of health during the procedure may be detected in the case of individual intolerance, it is necessary to stop the impact and consult a doctor.

#### **RELATIVE CONTRAINDICATIONS:**

- epileptic seizure;
- neoplasm of any etiology and localization;
- acute febrile illness of unknown etiology;
- condition of acute mental, alcohol or drug excitation
- ciliary arrhythmia;
- myocardial infarction.

USE EFFECTIVE HEALTH METHODS AND REMEMBER DICTUM OF SOCRATES: "IF A PERSON WATCHES HIS HEALTH, IT IS DIFFICULT TO FIND A DOCTOR WHO WOULD KNOW BETTER FOR HIS HEALTH THAN HIMSELF".

### **YOU CAN REGULATE WHAT IS CONTROLLED**

#### **Let us recall several important points:**

1. You need to carry out a course of procedures for at least 14 days to achieve a persistent positive result. The repetitive course is carried out if necessary.

Power and duration of the procedures are not adjustable, the program is fully automatic and the device turns off after the procedure.

2. Hypertensive and hypotensive patients need regular procedures at least once a month if they feel bad (for example, from the first to 14 day of each month), and in severe situations, use the device on a daily basis to maintain the pressure on the needed level.

3. Always take the device with you. Some of its users had sad occasions, when they needed it, but did not have it readily available.

4. Everyone should watch their blood pressure – hypertensive, hypotensive and normotensive patients. Tonometer is the man's best friend, and it is necessary to have it at home.

5. Hypertension is serious thing. It is a serious disease, and its neglecting is fatal. Application of the device NBP-050 as a part of complex therapy along with medical therapy increases its efficiency and reduces the addiction.

If you always use the device of the NBP-050, you can make sure that the method of non-invasive electrical stimulation for correction of blood pressure is a convenient, safe and effective way to deal with vascular problems.

WE WISH YOU TO BE HEALTHY, HAVE NORMAL PRESSURE AND ENJOY USING OF DEVICE NBP-050!