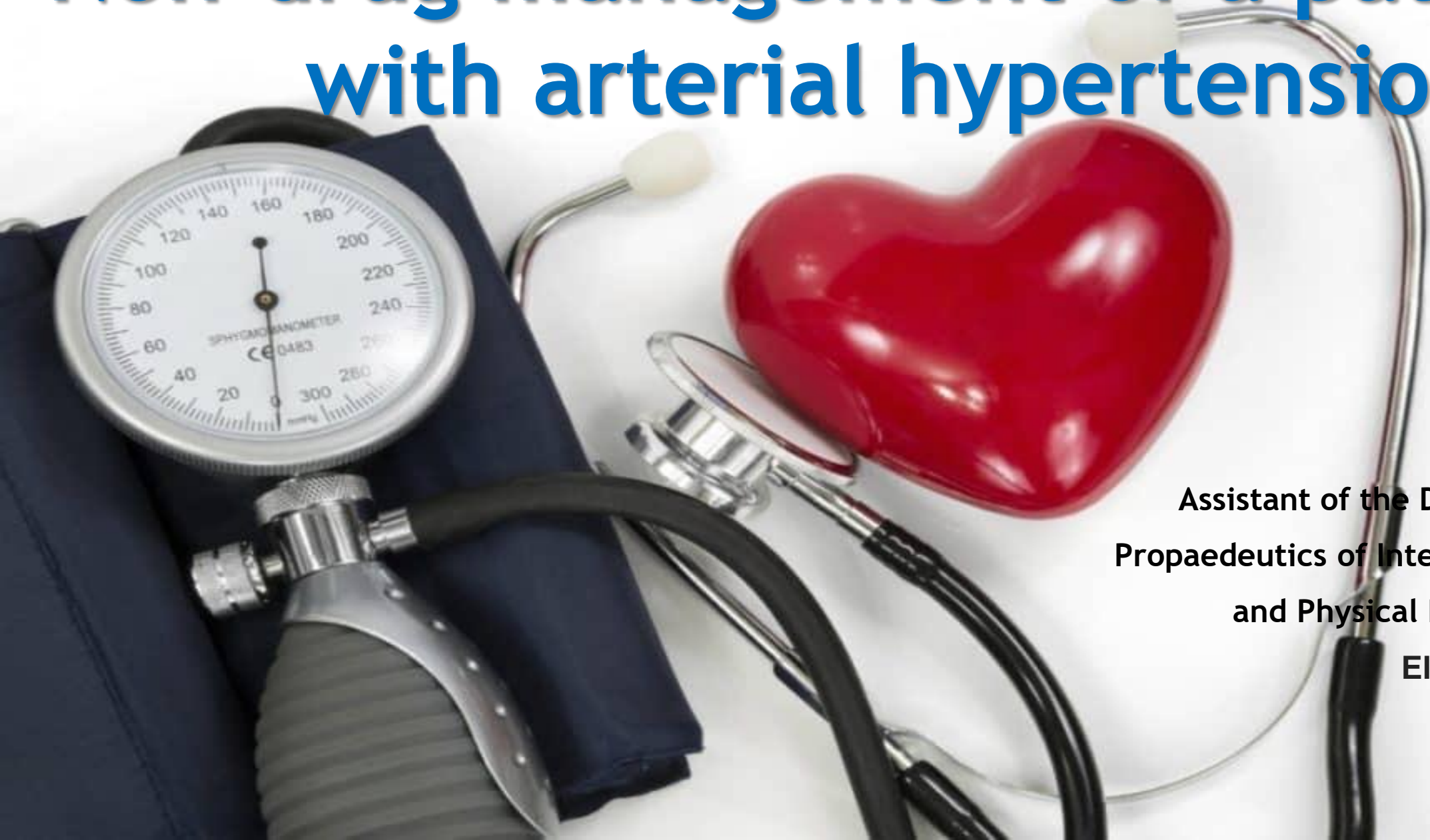


# Non-drug management of a patient with arterial hypertension



Assistant of the Department of  
Propaedeutics of Internal Medicine  
and Physical Rehabilitation  
Elvira Aydinova

In recent years, the numbers of uncontrolled hypertension have increased several times. Arterial hypertension is one of the main and most common risk factors for the development of various cardiovascular diseases. Therefore, the issue of developing the effectiveness of control of arterial hypertension is one of the most significant issues in world health care.





# Why should you pay more attention to the problem of hypertension?

Due to the global aging of the human population, as well as an increase in the prevalence of pathologies such as type 2 diabetes mellitus, metabolic syndrome, obesity, chronic kidney disease, which are closely interrelated with the formation and progression of hypertension, there is a significant deterioration in the epidemiological situation regarding this disease both in Ukraine and in other countries



Currently, there are two directions in the treatment of hypertension (drug and non-drug), which must be used together.

The goal of treating hypertension patients is to minimize the overall risk of cardiovascular disease and mortality, which involves not only a reduction in hypertension, but also correction of risk factors.







The drug treatment of modern antihypertensive therapy is based on the results of large-scale, randomized, controlled trials. When choosing an antihypertensive drug for initial therapy, all risk factors, the degree of target organ damage, and the presence of concomitant diseases must be considered. The drug should not only reduce the level of arterial hypertension, but also facilitate the course of the concomitant disease without compromising the quality of life of the patient. The presence of this pathology suggests the need for constant intake of basic drug therapy.

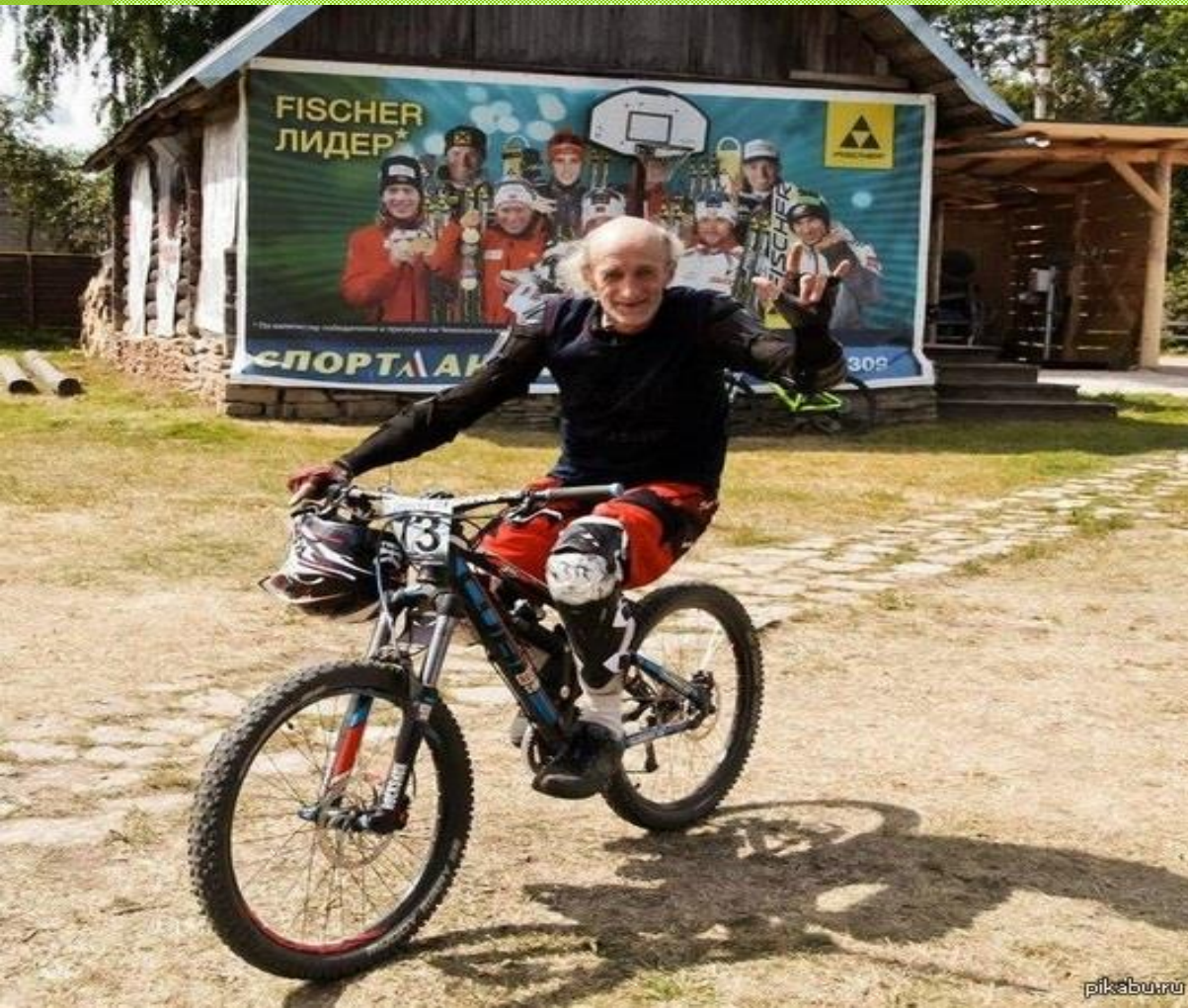
**Non-drug treatment** are based on the correction of the functional state of the body by changing the lifestyle with the active use of means and methods of physical rehabilitation. Non-drug therapy should be recommended to all patients with high blood pressure, it begins with an explanation of the need for lifestyle changes by affecting all risk factors for the development of this disease.





Among non-pharmacological methods, physical rehabilitation with an entire arsenal of means and forms occupies a particularly important place. It is proved that dosed physical activity helps to reduce body weight, blood pressure (especially diastolic), reduce triglycerides and increase high density lipoproteins, increase tissue sensitivity to insulin. Motor activity is a powerful biological stimulant of regulatory systems, provides active mobilization of adaptive mechanisms, increases the body's adaptive capabilities and patient tolerance to physical activity by improving the functional state of the cardiovascular system, reducing heart rate during exercise. This further expands the tolerance of physical exertion in professional and domestic activities, which leads to an improvement in the quality of life.

Physical activity is given in a dosed manner, carried out according to a program developed by a cardiologist together with a physiotherapy physician individually for each patient.





## TYPES OF PHYSICAL LOADS

***ANAEROBIC (STATIC) LOADS:*** Power loads to hold heavy weights contribute to the increase in muscle size, but at the same time reduce their elasticity.

***AEROBIC LOADS:***

cyclic (walking, running, swimming, cycling, etc.)

- acyclic (dancing, sports)

But one more method of rehabilitation and control of arterial hypertension should be noted, it has not been used in cardiology yet, but we are dealing with this issue and are currently conducting research. The basis of the study is the NEURAK method.

NEURAK is neuromuscular activation. The problem of restoring the functional relationships between the nervous system that controls the motor act, and the muscles that directly perform movements, is one of the key in rehabilitation and neurology in general. In addition, a large number of works in the field of anatomy, physiology, biochemistry, sports medicine and various clinical disciplines are devoted to the study of the interaction of the nervous and muscular systems. The time spent on health training will return to well-being for many years.



What will Red Cord Slim help us with? Redcord is a suspension device with two ropes, to which you can optionally attach a variety of tapes and equipment. Both ropes, at the ends of which there are straps, can be adjusted in length. Webbing and straps are used to hang the body. During examination and therapy, this equipment facilitates the work of the therapist, and the patient provides a feeling of comfort, thus reducing the manifestation of individual symptoms. Opportunities for TREATMENT with the help of Redcord equipment: neuromuscular activation, relaxation, expansion of the range of motion, traction, muscle stretching.





Redcord therapeutic simulators are also used in sports medicine. They enable the athlete to recover from heavy physical exertion or sports injuries. They are used to prepare the body for responsible competitions. In addition, cardiological training takes place. Thanks to it, the state of various organs and systems improves significantly: cardiovascular, respiratory, nervous, including the correction of arterial hypertension.



After training on this system with the Redcord simulator, the patient feels a significant improvement in overall physical condition:

- ❖ coordination of movements improves;
- ❖ restored biomechanics of movements;
- ❖ the activity of various muscle groups becomes friendly;
- ❖ posture improves;
- ❖ joint mobility is restored;
- ❖ muscle spasm is eliminated;



### Examination



Functional testing identifies muscular imbalances, poor muscle interaction and dysfunctions.







Thanks  
for  
attention!