



INFORMATION FOR PATIENTS UNDERGOING MYOCARDIAL SCINTIGRAPHY UNDER EXERCISE OR PHARMACOLOGICAL STRESS

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For the diagnosis and treatment of the following pathologies, it is indicated to perform a myocardial scintigraphy under exercise or pharmacological stress:

- Chronic ischemic heart disease – angina/exertional ischemia
- Recent coronary syndrome
- Left ventricular dysfunction – heart failure

Before undergoing the test, you will have an interview with a Cardiology nurse who will explain how to carry out the test and the doctor will ascertain that there are no conditions for which the test must be postponed or suspended.

This test is carried out in order to define:

- the nature of your ailments
- establish the efficacy of your therapy
- ascertain the state of your cardiovascular system
- ascertain your cardiovascular fitness for work

You will be informed that you must promptly warn of the appearance of chest pain, a sense of vertigo, weakness, general malaise, as these are indicative signs of a relative state of danger.

Perfusion myocardoscintigraphy is an examination that is used to evaluate the blood supply to the heart.

A cannulated needle is inserted into a vein in the arm, then you will undergo:

- stress test on the cycle ergometer which will allow the progressive increase of the effort until the appearance of some symptoms (fatigue, shortness of breath, chest pain) or until the doctor deems it appropriate to interrupt it, under constant monitoring of the pulse rate, blood pressure and electrocardiogram.
- administration of a medication (dipyridamole or adenosine or dobutamine) in variable doses according to weight. The procedure causes the same symptoms of physical effort and, in rare cases, bronchospasm, heat in the face, arrhythmias and has the purpose of evaluating the ability of the coronary arteries to supply an adequate flow to the heart.
- The test will be conducted until certain symptoms appear, such as fatigue, breathlessness, chest pains, or until the doctor decides it is appropriate to stop it.
- At the end of the test, a radioactive substance, Technetium 99

- (more rarely Thallium 201) is injected into the cannulated vein in order to be distributed into the heart and captured and photographed by special equipment.
- The test lasts two days, on the second day the re-injected radioactive substance is captured and photographed to see its distribution at rest.
 - During the test, the pulse, blood pressure and electrocardiogram will be monitored. The test is considered safe, although rare complications are possible.

NON-EXECUTION OF THE TEST IMPLIES:

- an incomplete knowledge of the disease;
- a poor formulation of the final diagnosis;
- the continuation of the therapy in empirical terms or the impossibility of establishing a correct therapy.

MOST COMMON RISKS OF THIS PROCEDURE

Stress Test:

Risks are linked to the appearance of supraventricular or ventricular arrhythmias (sometimes life-threatening: 1 case out of 5,000), acute heart failure or myocardial infarction. Death from these complications is a very rare event (1 case out of 10,000).

Pharmacological Test:

- the administration of dipyridamole can lead to the appearance of bronchospasm (breathing difficulties) or hypotension;
- adenosine can cause a feeling of warmth in the face and hypotension;
- dobutamine can determine the appearance of even threatening ventricular arrhythmias.

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