

## **INFORMATION FOR PATIENTS:**

# Spiroergometry (with/without lactate measurement) for general patients/sports patients/athletes

## 1. What is spiroergometry?

Spiroergometry is a stress test used to determine global physical performance, e.g. while running or cycling ("performance diagnostics"). With these measurements, one can obtain accurate data on various aspects of the circulatory, respiratory and muscular system. This allows for specific disorders to be more precisely characterised and for symptoms to be explained. For athletes, the results can assist their training management or competition preparation.





Image source: www.cortex-medical.de

## 2. How is spiroergometry performed?

We offer two methods.

- a) Treadmill: The patient/subject runs or walks at increasing speeds or over a rising slope. An ECG and a breathing mask are applied. A harness is used to prevent falls. With additional lactate testing, the exercise is interrupted at predetermined intervals to take blood samples from the earlobe for measurement.
- b) Bicycle: The patient/subject rides on a fixed bike. An ECG and a breathing mask are applied for this method as well. The resistance of the pedals is raised.

Resistance is increased to the point of exhaustion or in the case of patients, until certain termination criteria occur.

## 3. How should I prepare for the examination?

On the day of the examination and the day prior to the examination, do not engage in any strenuous sporting or physical activities. Eat a balanced diet on the day of the examination and the day prior to the examination, and make sure to eat sufficient carbohydrates. No dieting and no fasting before the examination!

## 4. What should I bring with me to the examination?

If you have them, please bring a tight-fitting sports vest, compression vest or a tight cycling jersey.

Showers are available after the examination. Please bring a wash kit. Towels are provided.

Treadmill: Running shoes or sports shoes suitable for walking and running as well as well ventilated sportswear.

Bicycle: Your ordinary cycle clothes or cycling-appropriate athletic clothing. If you have them, you can bring your own (clipless) pedals with corresponding shoes as well as your own bicycle saddle (without seatpost).

## 5. How long does the examination last?

Preparation takes about 15 minutes. The actual test lasts at least 10 minutes, but can also be significantly longer depending on the target of the investigation. There is then a discussion period of approximately ten to fifteen minutes.

## 6. Are there risks involved in spiroergometry?

Any strenuous sporting activity entails a (very low) risk of serious incident such as a heart attack. All preparations have been made for immediate treatment should such an incident occur.

Trips and falls on the treadmill should be avoided with appropriate clothing and with a securing harness.