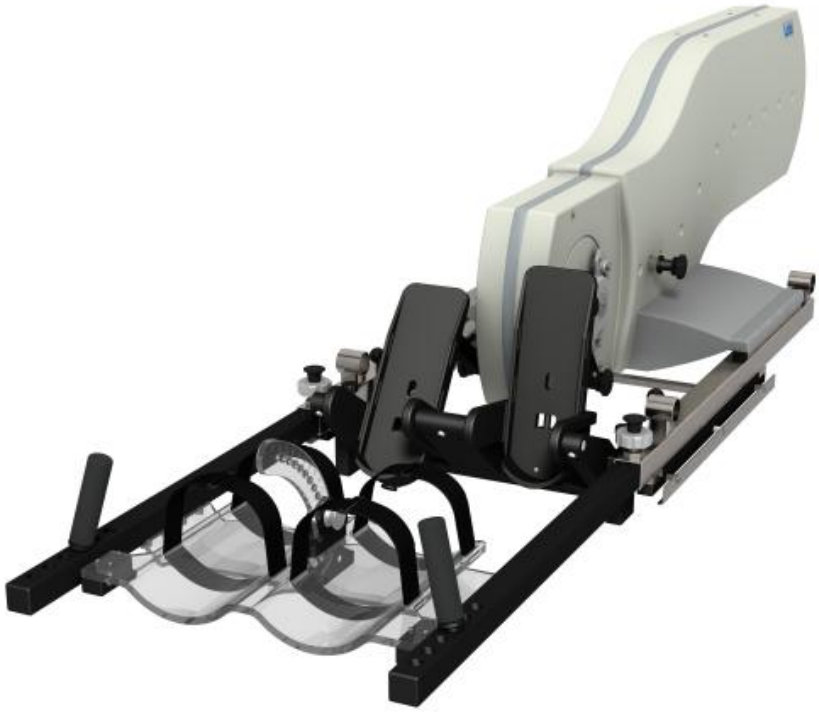
MR Ergometer Dorsal Ankle Flexion

Show the calf while being activated in an MR Scanner



Highlights

High standards

Lode is a socially and environmentally responsible company. All Lode products are RoHS/WEE compliant and Lode is ISO 9001:2015, and ISO 13485:2016 certified. All medical products comply to MDD 93/42/EEC, incl. IEC 60601-1.

Unique ergometer for MRI

With this unique ergometer it is possible to perform an exercise test in an MRI. An ergometer on the tabletop of an MRI ensures minimal time stress induction and imaging without coursing artifacts on the imaging.

Tesla independent

The choice of materials and the special design makes that the Lode MRI ergometer is useable for various Tesla MRIs without giving artifacts on the imaging.

Designed for use with MRIs at 1.5 and 3 Tesla

The ergometer can be used with various types of MRI scanners from renowned brands, like
- Philips
- Siemens
- GE

Exercise instead of medicine

When a test subject is able to do exercise, it is always recommended above pharmacologic stress. It allows objective measurement in either level of cardiac conditioning and/or level of cardiac work. It is safe and perfectly reproducible.

Lode FOR LIFE / UNDERSTANDING MOVEMENT & PERFORMANCE

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This MR Ergometer is developed for spectroscopy of the calf muscles (m. Soleus and m. Gastrocnemius) and the m. Tibialis Anterior. The MR ergometer is MR conditional and therefore can be used in the MR room. The workload is adjustable up to 100 watt. Thanks to the low moment of inertia, the patient can start pedalling easily despite the supine position. The MR ergometers workload is controlled with an electronical braking principle especially designed for use in a MR environment. The MR ergometer is standard supplied with the Lode Ergometry Manager software (LEM), the Optical Interface Cable, and a power unit. With the software the MR Ergometer can be controlled from the operator room. Protocols and patient data can be saved. The power unit is completed with a safety cable for wall fixation. The MR ergometer can be used for MR scanners up to 3 Tesla.

The MR ergometer is supplied with a carrier for easy transportation, fixation on the MR bed and storage.

Features

Suitable for Siemens MRI scanners

The MRI Ergometer can be used in combination with many Siemens Magnetom MRI scanners, like Skyra, Aera, Verio, Essenza, Prisma, Avanto Fit, Vida, Sola, Altea, Lumina and Spectra.

Suitable for Philips MRI scanners

The ergometer can be used with with various Philips MRI devices
like Philips Achieva and Ingenia.

Suitable for GE MRI scanners

The Lode MR Ergometer can be used with GE Signa and Discovery scanners.

Low noise

Due to accurate manufacturing and the careful choice of materials the product has an extremely low noise level.

Accurate over a long period of time

The Lode ergometers are supplied with an electro-magnetic braking mechanism of Lanooy (eddy current). The biggest advantage of this braking system compared to a friction braking system is the absolute accuracy and the accuracy over time. Moreover, friction braking systems have more wearing parts.

Small adjustment steps

1 watt

The workload of the Lode ergometers is adjustable in steps of only 1 watt. Depending on your wishes, the test operator or the test subject can adjust the workload. The steps of 1 watt are possible in the manual mode as well as within protocols.

Service friendly ergometer

Service friendly

Lode ergometers are very service friendly. In general, total costs for spare parts are so low that they are negligible. Furthermore, most options are so easy to install and firmware is so easy to update that labor costs are minimal. Moreover, the ergometer can be cleaned easily.

Up till 3 Tesla

3 Tesla

Lode MR ergometers are MR conditional. This means that under certain conditions, the ergometer can be used safely with MR ergometers up till 3 Tesla without artifacts being visible on the image.

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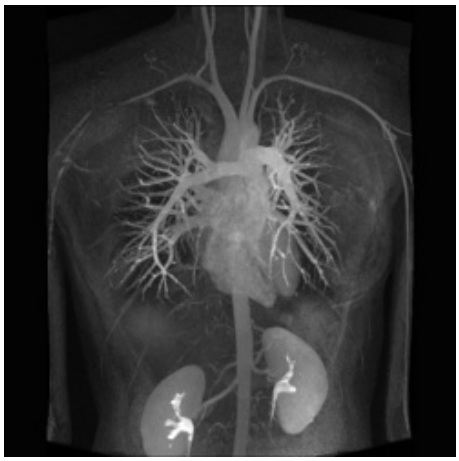

A unique ergometer

The Lode MR ergometers are designed to produce physical stress within an MRI device. The MR ergometer can be used for cardiac examinations, cardiac research, spectroscopy and other examinations and research . For cardiac MRI examinations, the MR ergometer can be produced with a pedal (circular) or push/pull exercise movement. For spectroscopy MR examinations there is an ergometer available with up/down movement for the upper leg and an ankle MRI ergometer for the calf muscles. The MR ergometers are designed to be used with the most types of MRI scanners of Siemens, Philips and GE . The choice of materials and the special design makes that the Lode MRI ergometer can be used for 1,5 and a 3 Tesla MRI without giving artifacts on the imaging . Our MR ergometer with its low start-up load enables exercise. When a test subject is able to do exercise, this is always recommended above pharmacologic stress. It allows objective measurement of improvement in either level of cardiac conditioning and/or level of cardiac work. It is safe and what is very important is perfectly reproducible.

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MR Ergometer Dorsal Ankle Flexion can a.o be extended with the following options:

Additional 3,5" control unit for MR ergometer

Clear feedback and additional control

Partnumber: 945857

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Specifications

Workload

Minimum load	5 W
Maximum peak load	100 W
Minimum load increments	1 W
Maximum continuous load	100 W
Hyperbolic workload control	✓
Linear workload control	✓
Fixed torque workload control	✓
Maximum rpm independent constant load	60 rpm
Minimum rpm independent constant load	5 rpm
Electromagnetic "eddy current" braking system	✓
Dynamic calibration	✓

Accuracy

Workload accuracy below 100 W	3 W

User Interface

English user interface	✓
Chinese user interface	✓
Croatian user interface	✓
Czech user interface	✓
Danish user interface	✓
Dutch user interface	✓
Finnish user interface	✓
French user interface	✓
German user interface	✓
Greek user interface	✓
Hungarian user interface	✓
Italian user interface	✓
Japanese user interface	✓
Korean user interface	✓
Latvian user interface	✓
Lithuanian user interface	✓
Norwegian user interface	✓
Polish user interface	✓
Portugese user interface	✓
Romanian user interface	✓
Russian user interface	✓
Spanish user interface	✓
Swedish user interface	✓
Turkish user interface	✓
Ukrainian user interface	✓

Connectivity

Lode Ergometry Manager	✓

Dimensions

Product length (cm)	135 cm	53.1 inch
Product width (cm)	50 cm	19.7 inch
Product height	50 cm	19.7 inch
Product weight	47 kg	103.6 lbs

Power requirements

115 V AC 50/60 Hz (130 VA)	✓
230 V AC 50/60 Hz (130 VA)	✓

Standards & Safety

IEC 60601-1:2005	✓
ISO 13485:2016 compliant	✓
ISO 9001:2015 compliant	✓

Certification

CE class Im according to MDD93/42/EEC	✓
CB according to IECEE CB	✓

Order info

Partnumber:	937904

**Specifications are subject to change without notice.*

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ISO 9001:2016 and ISO 13485:2016

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