

 **Genourob**<sup>®</sup>  
INNOVATIVE LAXIMETRY

The LDA<sup>®</sup>,  
Automated Dynamic Laximetry  
in Functional Rehabilitation

 Follow-up and control  
of ACL reconstruction



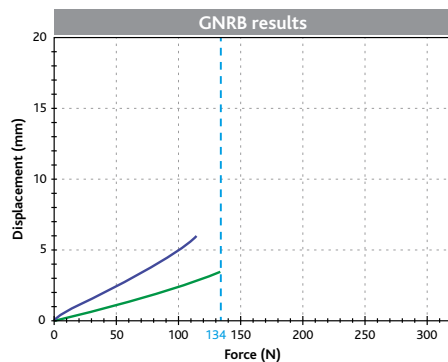
# The LDA<sup>®</sup>, Automated Dynamic Laximetry in Rehabilitation for an optimized functional rehabilitation of the ACL



- Device for LDA<sup>®</sup> in tibial translation
- Push forces from 1 to 300 N
- LDA<sup>®</sup> software
- Optional modules: PCL and ROTAB

## Test results of the LDA<sup>®</sup>

- Dynamic measurements of tibial displacement
- Curves of ligament resistance
- Calcul of the slope of curves
- Chart with registered measures
- Patient data archiving
- Export to xls file
- Print in pdf format



### Control of ligament resistance at 30 days

For patients not respecting the precautionary measures recommended by their practitioner, the plasty may stretch or "glide" in the tunnels, compromising the course of its good integration.

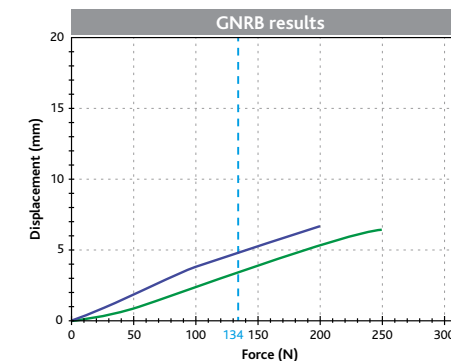
*Given example: Strong divergences, long-term risks*



### Documented quality

During the rehabilitation, the patient finds additional motivation in the regular performance monitoring of its LDA<sup>®</sup> curves. The therapist has also the possibility to adjust the protocol if necessary.

The quality of the ligamentisation and the progress achieved by an adapted rehabilitation is thus validated objectively.



### Stability? Resumption or not?

The LDA<sup>®</sup> test delivers key parameters on the clinical instability, the slopes of the laxity curves (M. Bercovy\*).

*Given example: good stability with parallel curves and low Δ134, the patient can be referred to a controlled resumption of professional or sportive activities.*



### ■ Personalized rehabilitation

The GNRB® is the first Automated Dynamic Laximetry device (LDA®) designed for the rehabilitation therapists.

It allows to **objectively qualify** the evolution of the **ACL reconstruction** and to adapt the **rehabilitation** protocol with dynamic or static exercises, in open or closed chain, of proprioception, with muscular strengthening, etc.

### ■ A patented method

**Simple and fast to position**, comfortable for the patient, the **LDA® test** is performed in a few **minutes** on a standard massage couch.

The LDA® software synthesizes and compares the measurements on both knees.



### ■ Early qualitative tests, without any risk

More tests at low pushes (100 N or less at the beginning) are **early performed** and more the **postoperative follow-up** becomes **effective** to avoid the risk of excessive residual laxity.

The GNRB test **adapts to each patient**, the applied pushing forces are therefore **safe for the plasty** (lower than the maximum stress while walking ~ 350 N, cf. Nagura.T\*).

\* Nagura T., Tibiofemoral joint contact...  
J. Appl Biomech. 2006 ; 22 :305-313

### ■ Efficient physiotherapy check-up

As a **physiotherapeutic assessment** procedure the LDA® test is performed (less than 10 minutes) by comparing the laxity of both knees.

This test **guides the choices of the therapist**, **quantifies and qualifies the ongoing rehabilitation**, informs the doctor and the patient on the **evolution**, proves to social organizations the benefits of the rehabilitation and the need for a controlled continuation.



## Quality Certificates

- NF IN ISO 13485 (2012)
- ISO 9001 (2008)
- ISO 13485 (2003)

## Patents

- French patents (INPI) : FR 0608725 and FR 0608726
- European patent : EP 078209.0-1526
- USA patent : Nr.13/502790



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