

8. Training

Time on video: 30 min. 10 sec.

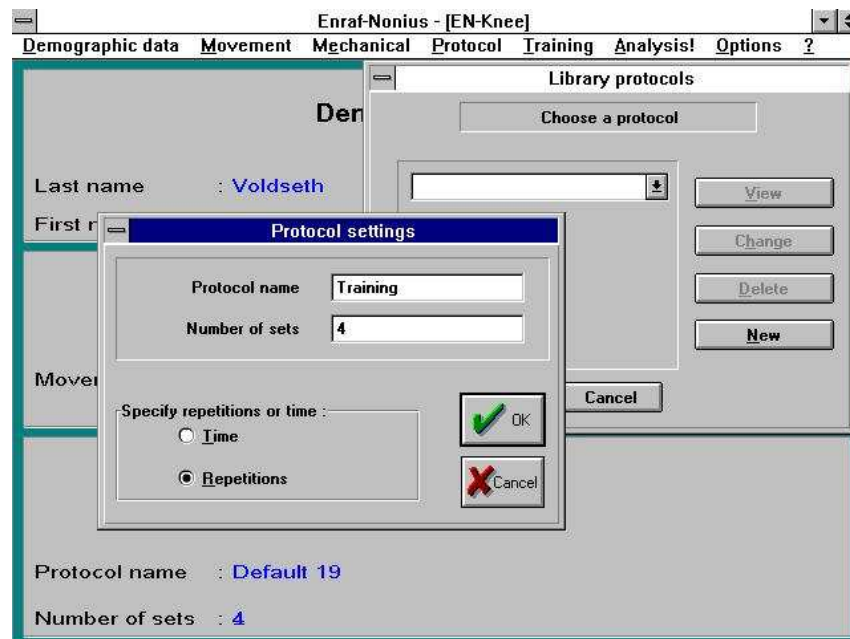
8.1 Training principles:

- Start training only when the limb is able to do free movements, or work against gravity.
- Start training with a fast speed ($>180^\circ/\text{sec.}$) and progress by reducing the speed.
- Control the range of motion (ROM).
- Exercise should be painfree.
- Training should be stopped if adverse effects emerge, such as effusion, pain, joint swelling, limb swelling, paresthesia.
- DO NOT OVERTRAIN (2).

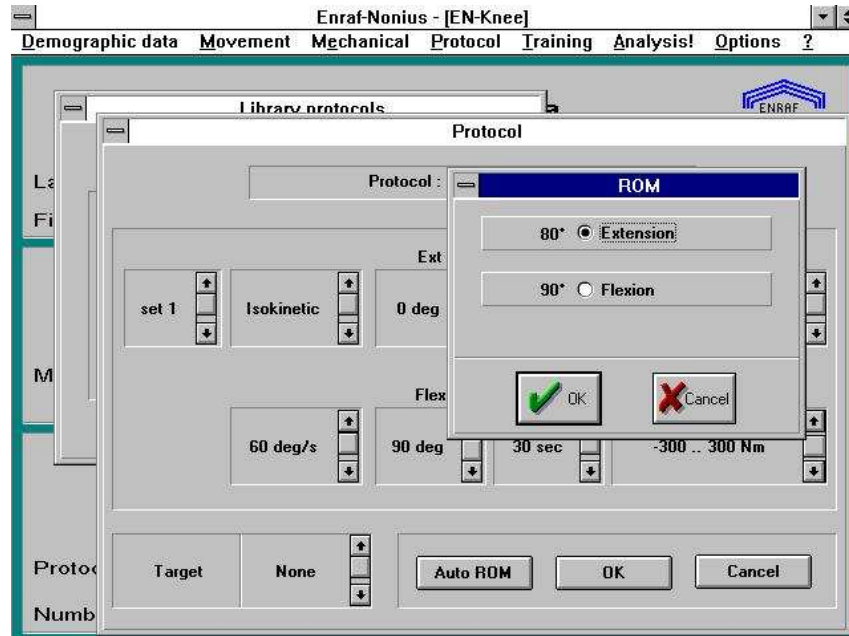
8.2 Training with the computer

When starting from the main window, first go to the protocol icon on top of the window. A list will then appear. Then click “library”.

A smaller window will show up and you choose to go to “new”. Then a new window comes, in which you have to decide for a protocol name and the number of sets you want to do. Here you also specify whether you want to train in relation to repetitions or whether you want to train in relation to time. When finished, click the “ok” button.



You will then see a larger window coming up. In this window you set the parameters for your training, as for the individual test protocol; isokinetic or isometric, degrees of extension and flexion.



When training in the isometric mode you specify the position, in degrees, where you want to train. When training in the isokinetic mode you have to specify the velocity in which you want to train, given in degrees/sec.

You can also set the screen range/max torque of your training. Finally, the duration of the training and the pauses are set.

Remember that you have to set the parameters for each set individually.

Then click the “training” button and then “start”. The training session can begin. Remember to tell the patient to not move his/her leg before the signal “Don't move” on the computer screen disappears. If the patient moves before the “Don't move” signal disappears, the error light starts to blink on the control panel of the EN-Knee. It will not be possible to proceed with the training and the EN-Knee will have to be switched off. Then it has to be turned on again in order to let it reset itself.

8.3 Training with the control panel



8.3.1 Isokinetic training:

On the control panel you are able to choose between isokinetic and isometric training. Push the isokinetic button and press "Enter".

It is possible to choose between several velocities (degrees/sec.). The velocities are ranging from 60°/sec. up to 240°/sec.

Select the velocity of the movement by pushing the velocity button on the control panel. Then press "Enter".

Additionally, you can decide the maximal peak torque/screen range of the peak torque meter. Choose the screen range for the peak torque-meter and press "Enter".

On the control panel the range of motion in which you want the patient to train, can be set. Decide the range of extension you want the leg to move, as well as the range of flexion. Then press "Enter".

Press the "start" button on the control panel and start the training.

8.3.2 Isometric training:

On the control panel you are able to choose between isokinetic and isometric training. Push the isometric button and press "Enter".

You can also decide the maximal peak torque/screen range of the peak torque meter. Choose the screen range for the peak torque-meter and press "Enter".

On the control panel the position in which you want the patient to train, can be set. Choose the position, the degree in the range of motion you want the patient to train. Then press "Enter".



Press "Start", and the training can begin.

