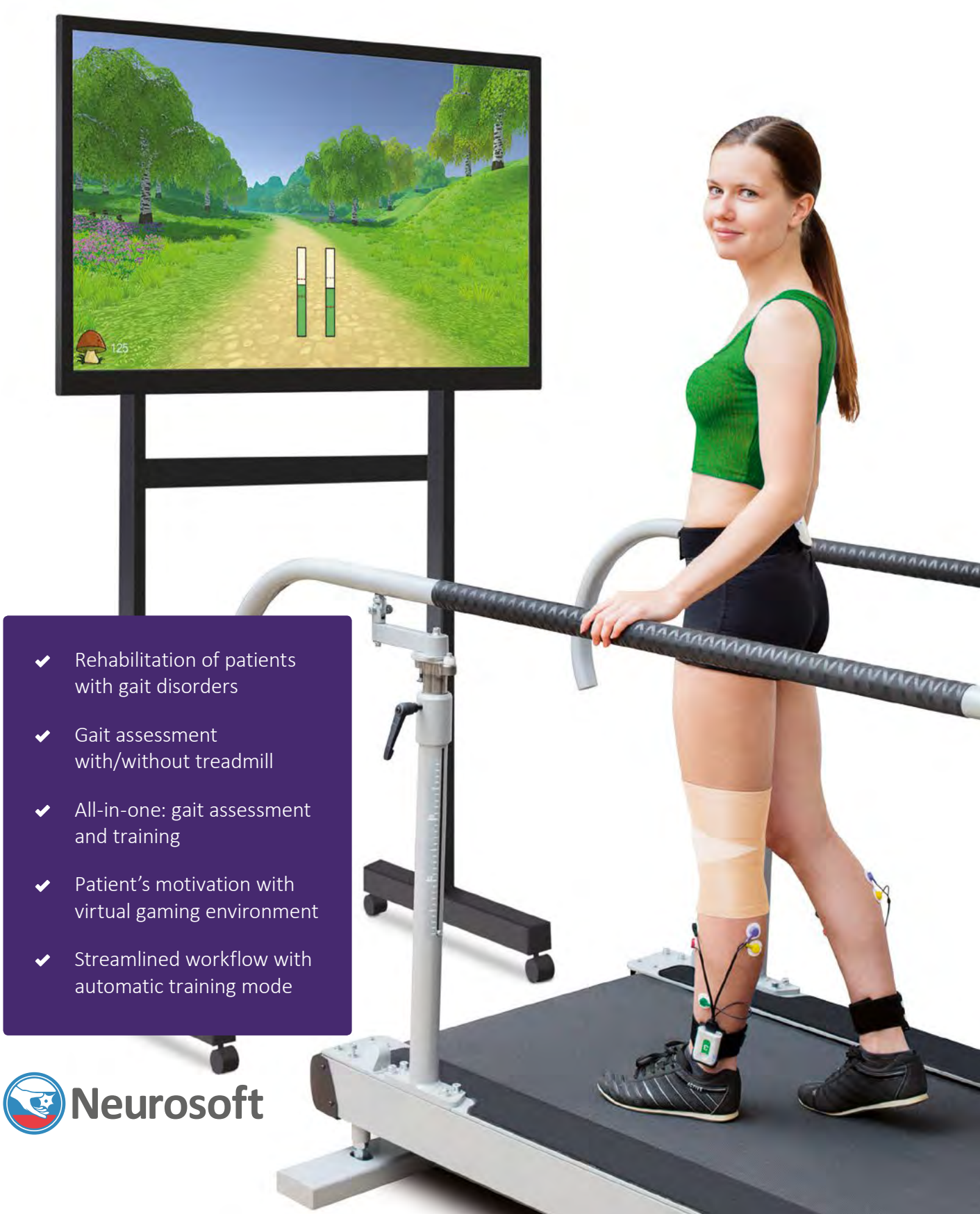
STEADYS

Gait Assessment and Training System



- Rehabilitation of patients with gait disorders
- Gait assessment with/without treadmill
- All-in-one: gait assessment and training
- Patient's motivation with virtual gaming environment
- Streamlined workflow with automatic training mode

Neurosoft

STEADYS:
SMART AND SIMPLE!

1. IMU Sensors

The Neurosens inertial measurement unit (IMU) sensors are miniature watch-sized electronic devices positioned on a patient. They record simultaneously temporal, spatial, kinematic gait parameters and EMG data.

The delivery set includes three sensors: two of them are positioned on a patient's shanks and one is fixed on a patient's back to record the body movements during the walking.

2. Treadmill

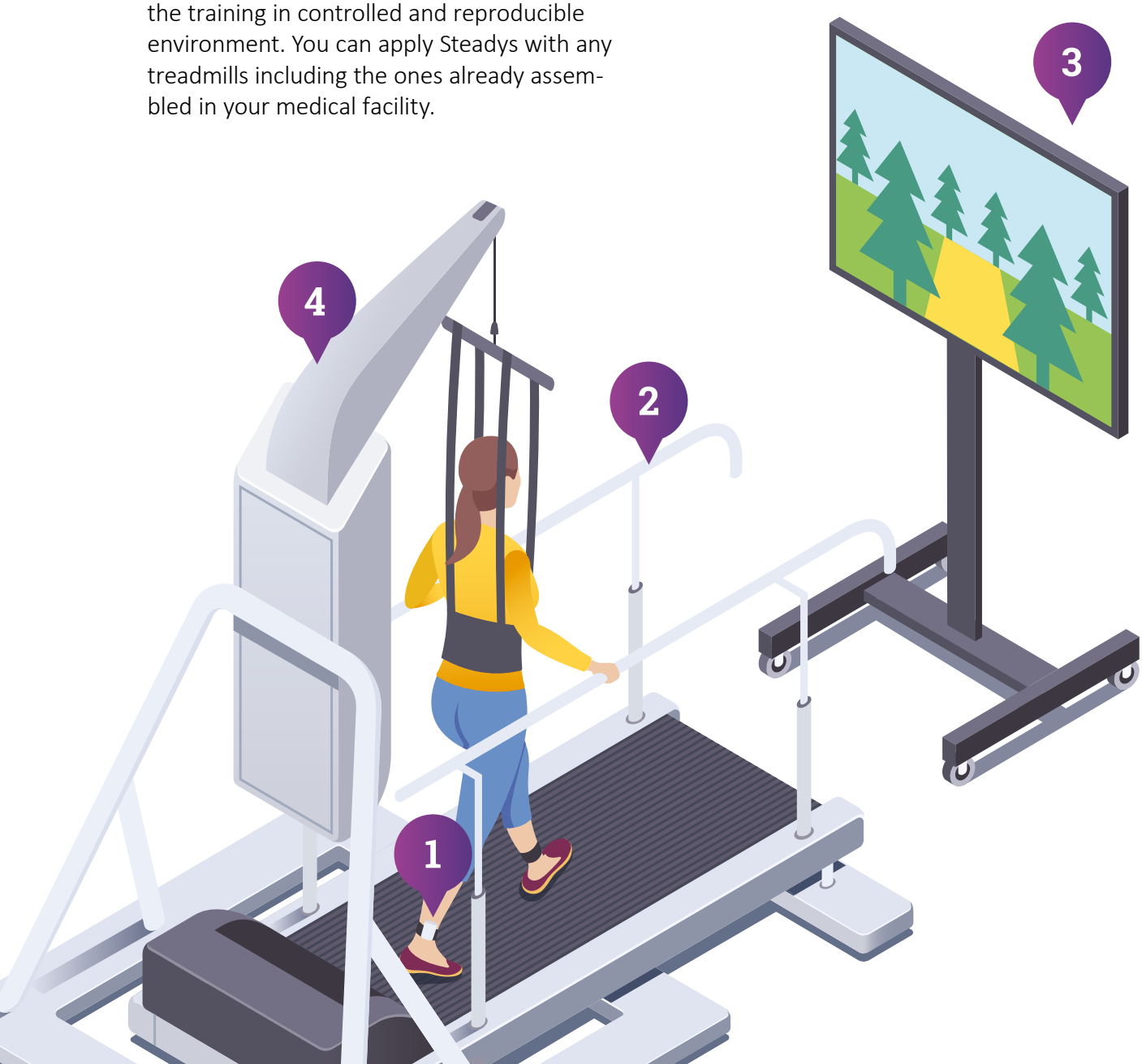
It is used to assess the gait and to perform the training in controlled and reproducible environment. You can apply Steadys with any treadmills including the ones already assembled in your medical facility.

3. BFB Monitor

It ensures a patient with the real-time visual and audio feedback.

4. Body Weight Support System

It reduces the load on the lower limbs and preserves a patient from falling during the treadmill walking.



NEUROSENS SENSORS — THE STEADYS'S HEART

20
gait parameters can be recorded

The Neurosens IMU sensors can acquire three data types: acceleration by three axes, velocity by three axes (due to built-in 3D gyroscope and 3D accelerometer) and EMG through two differential channels.

All-in-one. Acquisition of gait parameters and EMG is done with one IMU sensor.

Fe

The signal acquisition is not affected by the surrounding metal constructions.

Wi Fi

The data exchange with computer software is done via Wi-Fi.

FAST

ACCURATE & ASSESSMENT

Steadys allows evaluating the gait parameters and assessing the functional state of patient's locomotion system before rehabilitation as a first step of developing individual rehabilitation program and during the course of rehabilitation in order to analyze the efficiency of tailored rehabilitation program.

During the test a patient makes several steps and the software records the gait parameters and automatically detects the deviations.

It is easy to use Steadys:

1. The assessment of gait parameters can be done without the treadmill. A patient can walk on any surface.
2. The exam usually lasts not more than 2 minutes.
3. You can observe the gait assessment in real time and complete or restart it when it is necessary.

EFFICIENT

REHABILI-TATION

The Steadys in Rehabilitation configuration allows assessing the gait parameters on-line and performing rehabilitation using the bio-feedback.

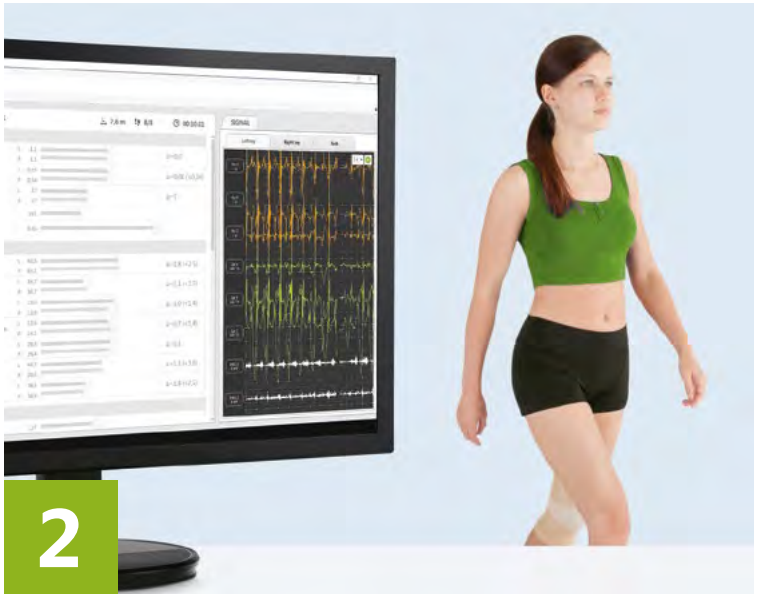
The advanced software is designed to ensure the gait training in a most efficient way:

1. The biological feedback is based only on the gait parameter that should be compensated.
2. The training can be performed both in manual or automatic mode. Therefore, you can manage the successfulness of the training tasks and change the level of difficulty or it can be done by the software. It reduces automatically the training difficulty and adapts to the patient's abilities or increases the difficulty if the task is too easy.

3 STEPS FOR GAIT ASSESSMENT

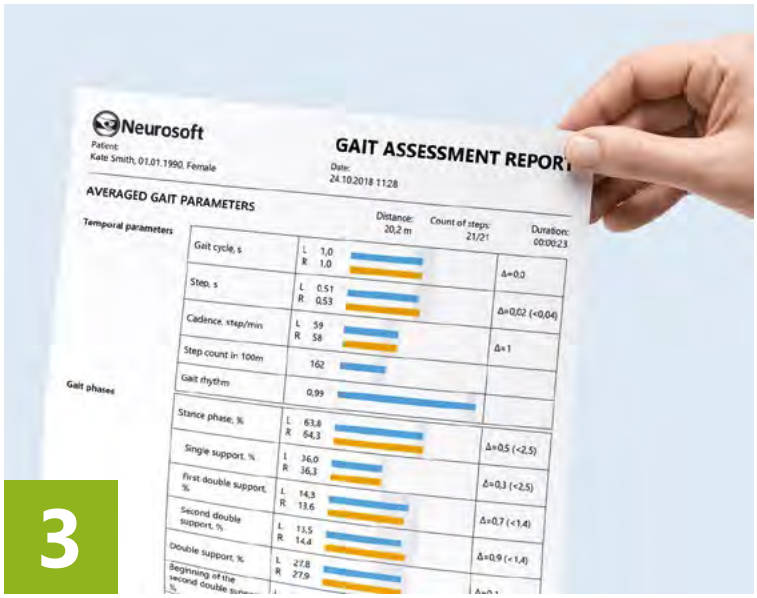
1

Position the IMU sensors on a patient and place the EMG electrodes. Run the software and enter patient's data.



2

To assess the gait parameters, ask the patient to make several steps. At that the software records the gait parameters, compares them with the reference values and highlights the abnormal values.



3

Upon the assessment completion the software generates the report that includes all gait parameters compared with the reference values.

4 STEPS FOR EFFICIENT TRAINING

1 Assess the gait parameters.

2 Select the gait parameter to be corrected and start the training.

3 Monitor the successfulness of training task and adjust the task difficulty when it is necessary.

4 Generate the report containing all gait training data upon the training completion.

TREADMILLS AND BODY WEIGHT SUPPORT SYSTEMS

The Steadys can work with any medical treadmill and body weight support systems. If you have already purchased them, we can equip them with sensors, electrodes, and software. If you don`t have them yet, choose the proposed configurations or select your own one.

Treadmill with Lode body weight support system

Walking surface
150 × 50 cm

Speed range
from 0.1 to 12 km/h

Speed adjustment step
0.1 km/h

Treadmill with h/p/cosmos body weight support system

Walking surface
150 x 50 cm

Speed range
from 0.1 to 22 km/h

Speed adjustment step
0.1 km/h

ACCESSORIES

Charging station

Charges up to 6 sensors simultaneously.

Elastic straps with sensor mounts

The delivery set includes the sensor mounts and elastic straps of 20 cm – 1 m length to fix securely the sensors both on children or adults of different body constitution.

Electrodes and cables for EMG acquisition

We supply high-quality disposable adhesive electrodes for EMG acquisition.

The cable length can be chosen depending on patient's constitution to prevent cable tangling and to reduce the signal noises.

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