STEADYS-STEP

3D System for Clinical Gait Analysis

- ✔ 10 MINUTES FOR CLINICAL GAIT ANALYSIS
- ✔ USER-FRIENDLY INTERFACE
- ✔ 3D KINEMATICS AND DYNAMIC EMG RECORDING BY ONE SENSOR
- ✔ SYNCHRONOUS VIDEO RECORDING

Neurosoft

STEADYS.
GAIT ANALYSIS FROM SIMPLE SCREENING TO A COMPREHENSIVE EXAM

Gait analysis using three-dimensional (3D) systems is currently the gold standard for the measurement of gait parameters including spatiotemporal, 3D kinematics and dynamic surface electromyography (EMG). Such information is crucial when considering a rehabilitation approach or for clinical decision making.

Steadys has various configurations to fit your needs and goals. You can get ONE system for stride characteristics and 3D kinematics and for dynamic surface EMG during walking. **Both tests are performed at the same time and take only 10 minutes from the first step to the report.**

The core of the system, Neurosens inertial measurement unit (IMU) sensors are used to record the gait parameters. These miniature watch-sized electronic devices are positioned on the patient and record acceleration and angular velocity by three axes (ensured by built-in 3D gyroscope and 3D accelerometer) as well as EMG data from two differential channels.

Steadys allows analyzing up to 25 gait parameters (temporal, spatial, 3D kinematic) and dynamic surface EMG from up to 24 muscles!

Smart algorithm based on deep neural networks **automatically and accurately measures gait parameters and identifies deviations in real time.**

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

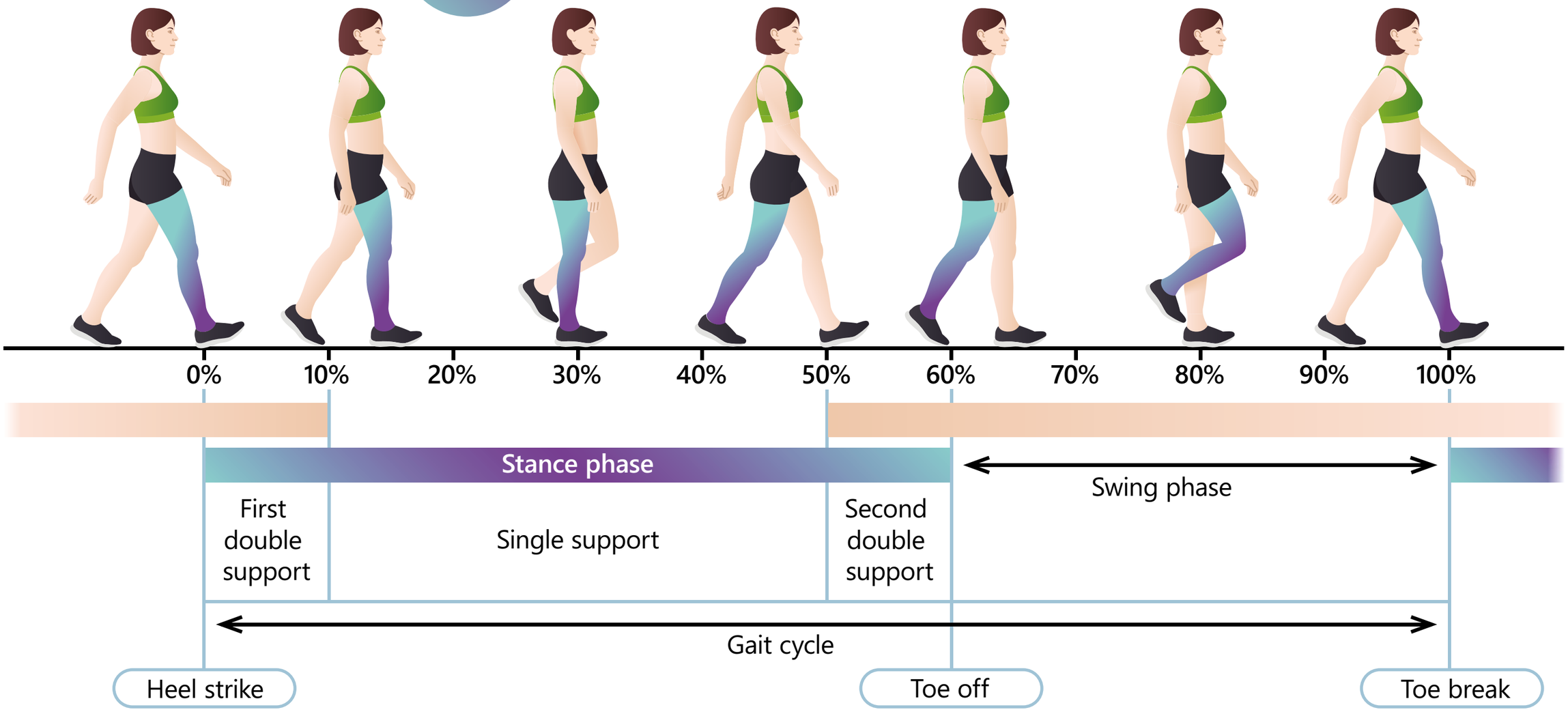
Fe

The signal acquisition is not affected by any surrounding metal structures.

Wi Fi

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

UP TO 25 GAIT PARAMETER ASSESSMENT



Temporal parameters

- Gait cycle
- Cadence
- Gait phases
- Gait rhythm

Spatial parameters

- Stride length
- Gait speed
- Foot clearance
- Circumduction

Dynamic surface EMG

- RMS EMG curve
- RMS EMG amplitude
- RMS EMG maximum

3D kinematic

Hip, knee and ankle joints:

- Flexion/extension curve
- Abduction/adduction curve
- Rotation curve

Pelvis:

- Sagittal flexion/extension amplitude
- Frontal flexion/extension amplitude
- Rotation amplitude

3 STEPS TO A COMPREHANSIVE GAIT ANALYSIS

Walking on the floor or on a treadmill.

10

The exam usually lasts not more than 10 minutes.

You can observe the gait assessment in real time and stop or restart it when necessary.

1

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

2

To assess the gait parameters, ask the patient to make several steps. While walking the system records the gait parameters and compares them with the reference values.

3

Upon the assessment completion, the software generates the report that includes all gait parameters and surface EMG data compared with the reference values.

ACCESSORIES

Charging station

Charges up to 6 sensors simultaneously.

Elastic straps with sensor mounts

The delivery set includes the sensor mounts and elastic straps 20 cm to 1.4 m long to fix the sensors securely 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 the patient's needs.

Neurosoft

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