FIOR & GENTZ
ORTHOPÄDIETECHNIK MIT SYSTEM

NEURO SWING – Dynamic Balance and Stability

NEURO SWING – Dynamic and Multifunctional System Ankle Joints

NEURO SWING

THE ORIGINAL With its adjustable alignment and interchangeable spring units, the **NEURO SWING** is the ideal system joint for a flexible treatment. Another plus is the **plug + go** modularity, which allows a conversion to any other product in the **plug + go** series in just a few simple steps.

NEURO SWING 2

The **NEURO SWING 2** has integrated noise reduction and is therefore the ideal choice for people who appreciate silent locomotion. Like the **NEURO SWING**, it is part of the **plug + go** series and can be converted in record time.

NEURO SWING Carbon

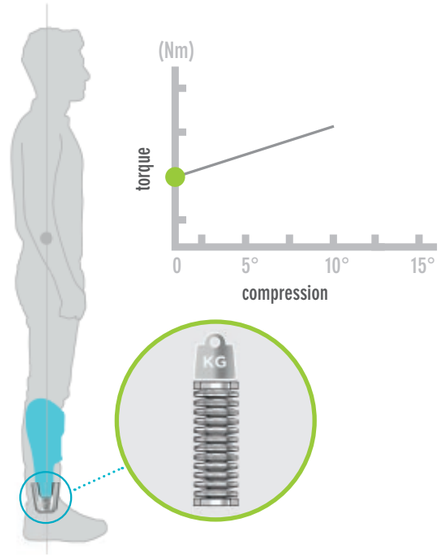
The **NEURO SWING Carbon** is the waterproof version of the **NEURO SWING**. With its adjustable alignment and interchangeable spring units it offers the same advantages as the **NEURO SWING**, but can also be used in wet and outdoor areas thanks to the ultralight carbon fibre reinforced joint case.

proven and scientifically tested system ankle joints to control spasticity and/or rotational deviations caused by neurological disorders

NEURO SWING: Precompressed Spring Units Making a Huge Difference

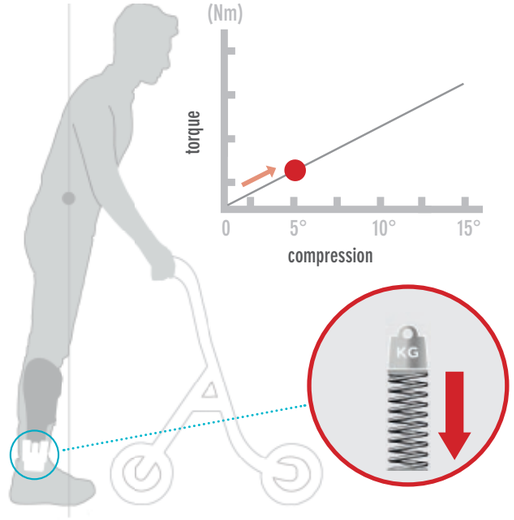
Precompressed

In order to bring a body into a stable balance, the forefoot lever must be activated. Precompressed spring units with high basic resistance provide dynamic balance and stability.
This allows for a secure stance and gait over different terrains. Since no medical devices other than the orthosis are required, the hands are free for everyday tasks.



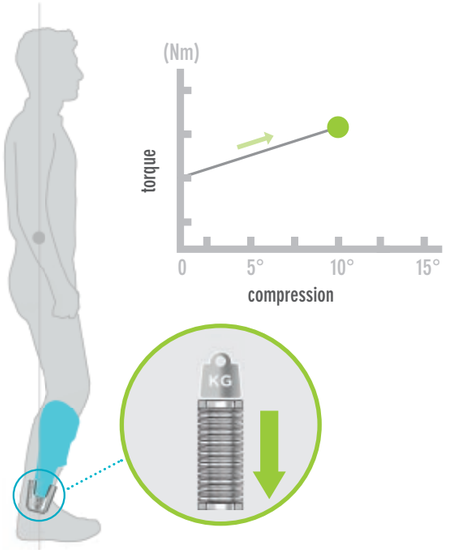
Not Precompressed

Commonly used standard coil springs must be heavily compressed to generate resistance. The nonexistent basic resistance due to the lack of precompression leads to a yielding of the spring when loaded during stance and, due to the missing security, to an unstable stance and gait.
This requires the use of medical devices such as crutches or walkers. The hands are therefore needed for support.



Precompressed + Dynamic

The precompressed spring units with the high basic resistance support the anatomical mobility in the ankle joint and a dynamic stance. This way, walking becomes fun again.



Energy Recovery

The high spring force ensures that the energy is returned and thus enables a physiological gait, recognisable by the heel lift.

Dynamic Heel Lift through Extremely High Spring Force

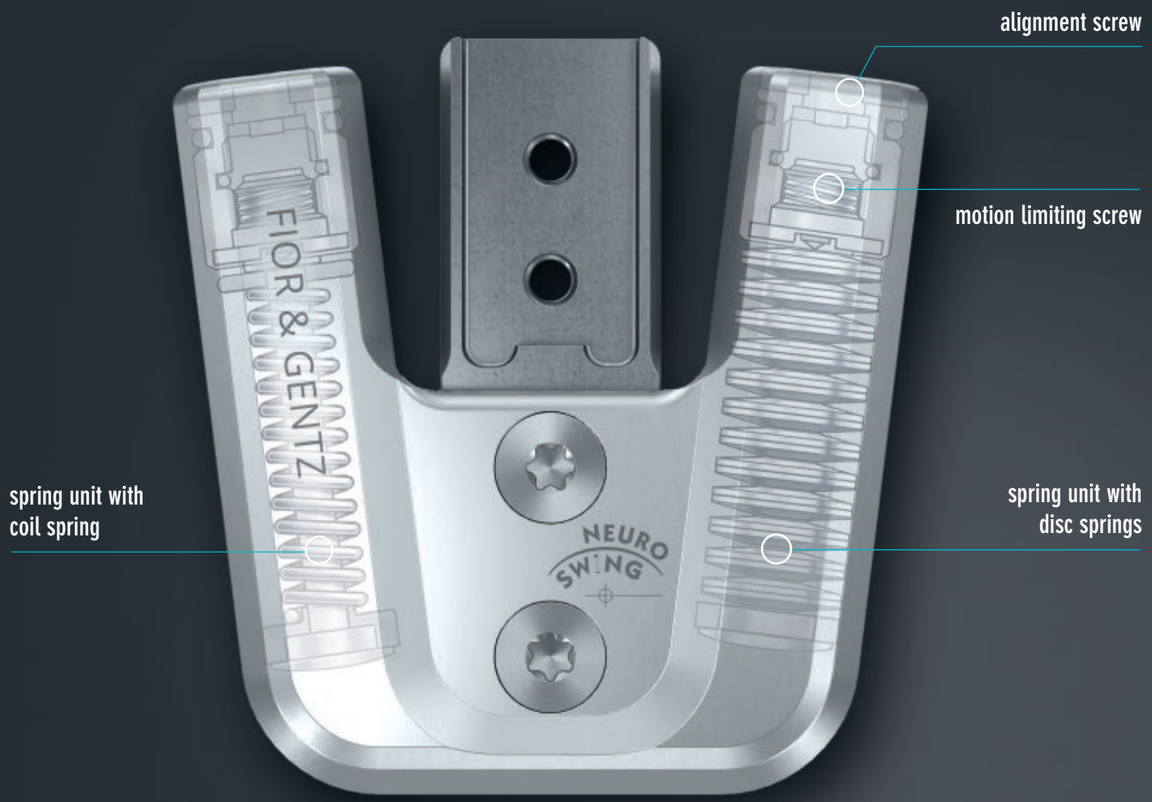
Calculation of the Spring Force

The FIOR & GENTZ Orthosis Configurator determines, based on the muscle strength, the spring force with the corresponding precompression that is best suited for the needs of your patient.

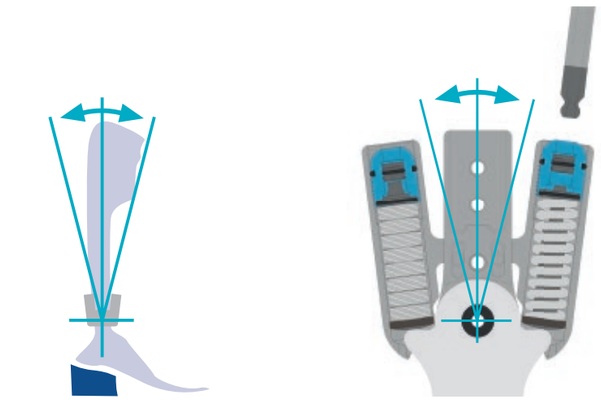
Orthosis Configurator

The patented, individually adjustable, precompressed spring units compensate the forces generated by the motion at every step, at every speed, on every terrain and when standing. Thus, a constant, dynamic balance is achieved.

NEURO SWING – 3-Way Adjustable

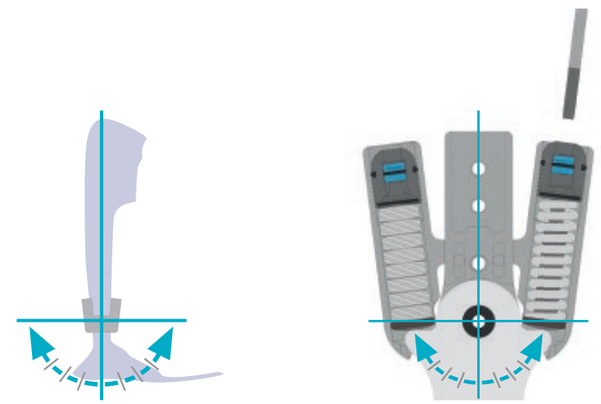


plug+go MODULARITY



1 Adjustable Alignment

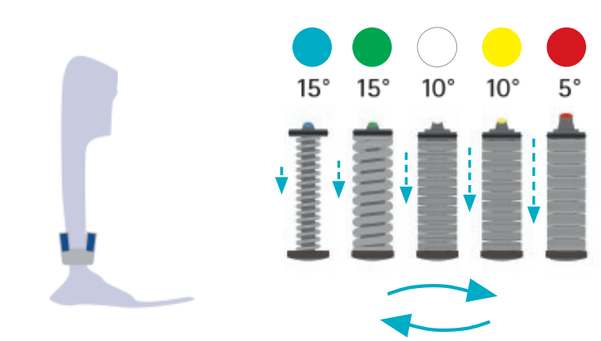
Thanks to the adjustable alignment of the **NEURO SWING** system ankle joint, the orthosis can be individually adjusted to the patient's pathological gait. And should the gait change, a quick response by an adjustment modification and tuning is easily possible.



2 Adjustable Range of Motion

In the early rehabilitation stages following a surgery, it may be necessary to partially or completely disable the range of motion of an orthosis and to only enable it at a later stage of therapy. Thanks to the motion limiting screw, which is integrated in the **NEURO SWING** system ankle joint, the predefined range of motion in plantar flexion and dorsiflexion can be completely blocked and gradually released again.

All adjustments can be made separately. They do not influence each other.

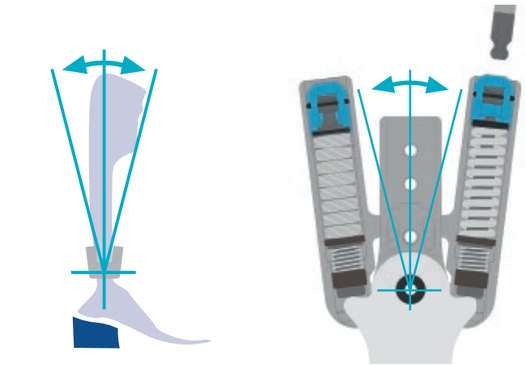


3 Variable Spring Force

The spring force in plantar flexion and dorsiflexion can be individually adjusted to the patient's needs thanks to the interchangeable spring units.
The product range consists of a total of five different spring units, with forces ranging from normal to extra strong and a range of motion from 15° to 5°.

NEURO SWING 2 – Silent

plug+go MODULARITY



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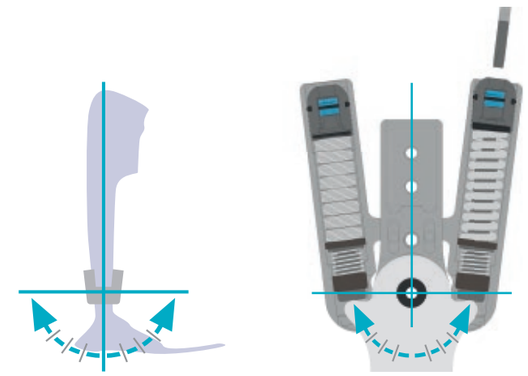

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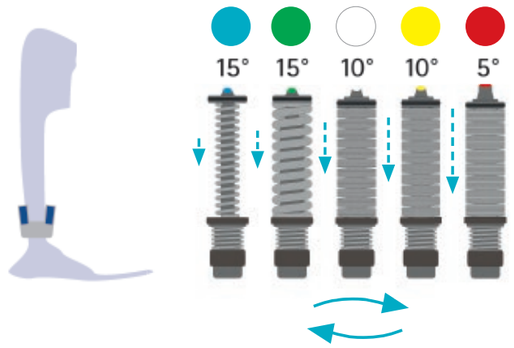

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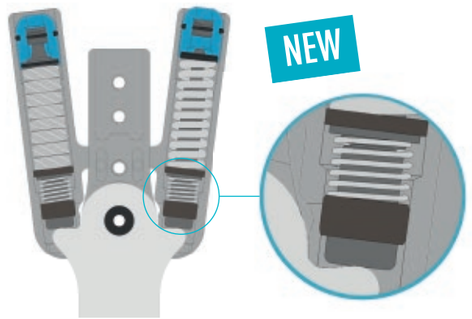


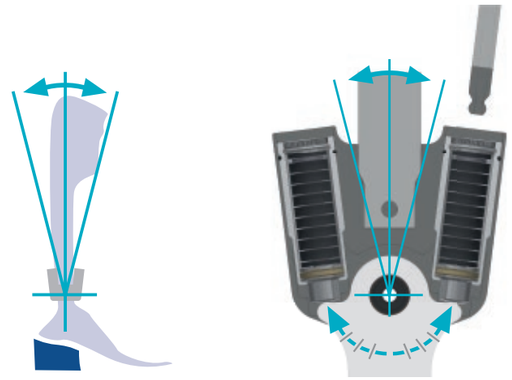
Integrated Noise Reduction

A special feature of the NEURO SWING 2 system ankle joint is the integrated noise reduction, which reduces the clicking of the stops to a minimum. Thus, it is a perfect fit for people who want to be as quiet as possible in everyday life.

NEURO SWING Carbon – Waterproof

1 Features

Many orthosis wearers are outdoor enthusiasts who do not want to limit their activities because of their orthosis. The **NEURO SWING Carbon** system ankle joint was developed for exactly this target group.
Thanks to its ultralight and robust carbon joint case, the water- and dirt-resistant spring unit sleeve and the seawater-resistant stainless steel screwing, it can be used in wind and rain, on the beach and in the sea during various activities.



2 Adjustable Alignment

Thanks to the adjustable alignment of the **NEURO SWING Carbon** system ankle joint, the orthosis can be individually adjusted to the patient's pathological gait. And should the gait change, a quick response by an adjustment modification and tuning is easily possible.

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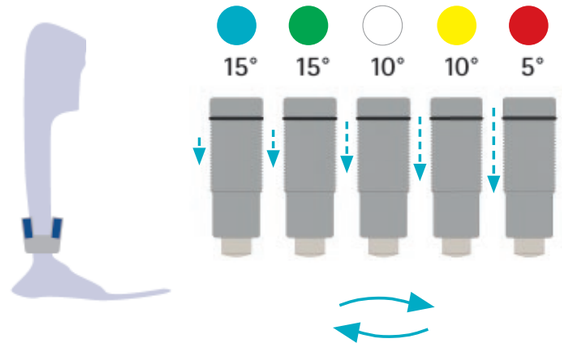

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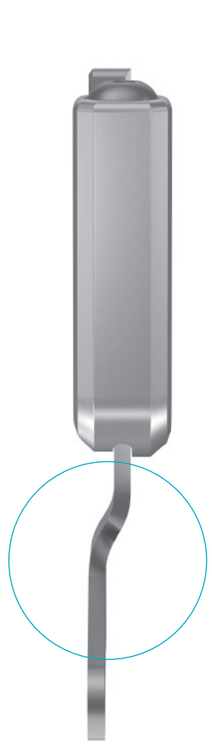
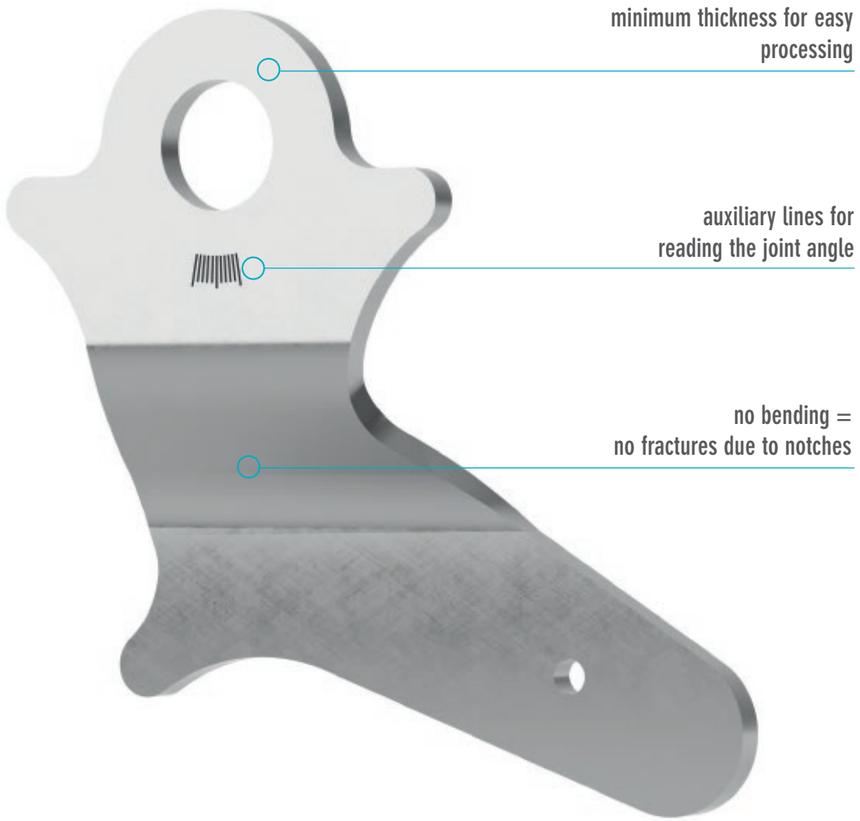
NEURO SWING: System Stirrups

Example: Lamination/Prepreg Stirrup (Bent)



system stirrup side view



NEURO SWING: Examples of Use

Orthosis for a Patient with Cerebral Palsy

unilateral construction **AFO** with **NEURO SWING** system ankle joint

Orthosis for a patient with Spina Bifida

unilateral construction **KAFO** with **NEURO CLASSIC zero** system knee joint and **NEURO SWING** system ankle joint

Orthosis for a Patient with Multiple Sclerosis

unilateral construction **KAFO** with **NEURO MATIC** system knee joint and **NEURO SWING** system ankle joint

Orthosis for a Patient with Poliomyelitis

unilateral construction **KAFO** with **NEURO LOCK Carbon** system knee joint and **NEURO SWING Carbon** system ankle joint

NEURO SWING: System Ankle Joints Compared

	NEURO SWING	NEURO SWING 2	NEURO SWING Carbon
Material	steel / titanium	steel / titanium	carbon
Adjustable alignment	+	+	+
Adjustable range of motion	+	+	–
Variable spring force	+	+	+
Integrated noise reduction	–	+	–
Water-resistant	–	–	+
plug + go modularity	+	+	–
Inwards and outwards bent joint versions	+	+	–
Weight, e.g. system width 20mm (titanium + carbon)*	156g	189g	104g

* without spring units

Spring Unit Cases

A practical spring unit case is available as an accessory for each of the three **NEURO SWING** versions. It contains two spring units per spring force for each system width as well as the necessary tools for exchanging the spring units. Your advantage: with this case, the effects of the different spring forces on the gait can be compared and a flexible reaction to the therapy progress is possible. The case can also be ordered empty for customised equipping.

NEURO SWING

NEURO SWING 2

NEURO SWING Carbon

NEURO SWING System Ankle Joints – Dynamic Balance and Stability in Every Situation

NEURO SWING with Orthosis Shoe PARKSTREET

NEURO SWING with Orthosis Shoe URBANSTREET

NEURO SWING 2 with Orthosis Shoe CROSSROADS

Water-Resistant Orthosis: NEURO LOCK Carbon and NEURO SWING Carbon

NEURO SWING with Orthosis Shoe CROSSROADS

Overview of Treatment Guides

MS Guide

A Guide for the Diagnosis and Orthotic Treatment of Patients with Multiple Sclerosis

Stroke Guide

A Concept for the Orthotic Treatment of the Lower Extremity following a Cerebral Vascular Accident

CP Guide

A Concept for the Orthotic Treatment of the Lower Extremity in Cerebral Palsy

Guide to Paraplegia

Evaluation of the Orthotic Treatment of the Lower Extremity following Paraplegia

General Physical Examination Guide

For the Orthotic Treatment of the Lower Extremity

Guide to Partial Foot Amputations

A Concept for the Prosthetic Treatment of Patients with Amputations Below the Ankle Joint

Use the Orthosis Configurator

to independently select the necessary system components for your orthosis. The Orthosis Configurator determines the appropriate system components and spring units for your patient by taking the patient data and the load capacity of the **NEURO SWING** system ankle joints into account.

Orthosis Configurator

www.orthosis-configurator.com

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