

Basic Alignment of the Orthosis

Checking on the Workbench

For an orthosis with a NEURO MATIC or NEURO TRONIC system knee joint the wire length (only NEURO MATIC) as well as the effect of the extension stop and the dorsiflexion stop are checked in the basic alignment. To do so, the orthosis has to be positioned with the patient's shoe on the workbench in the individual normal posture of the patient. The line of gravity (blue line) should extend from the middle of the femoral shell (A) and run vertically downwards in front of the system ankle joint and between the ankle's pivot point and the rolling-off line (B). The course of the line of gravity at knee height results from the individual normal posture.

If the orthosis does not stand on its own but has to be held in this position by hand, the adjustment errors become visible (shown in red). Please check the following 3 adjustment points starting with 1!

Point 3: Wire Length

The wire has to be shortened so far that it fits flush with the lower part of the locking pawl in its unlocked state. If the wire is too long (a), the locking pawl is pressed upwards into the toothing of the toothed ring. The system joint does not unlock in swing phase. If the wire is too short (b), it has no contact with the lower part of the locking pawl. The system joint does not lock or locks too late in loading response.

Point 2: Extension Stop

An opening must not be seen between the joint's upper and lower part. If an opening is visible, the system joint is adjusted **incorrectly**. The locking pawl is not pressed downwards and the system joint does not unlock correctly.

Point 1: Dorsiflexion Stop

The adjusting screw has to touch the system stirrup with its complete surface. If there is no contact between the screw and the system stirrup, the forefoot lever is not activated. As a result, the system knee joint does not unlock securely in swing phase. The dorsiflexion stop in system ankle joints with a dynamic one has to be adjusted correctly as well.

