

Academy Tech Tips

Replacing the expansion springs on the Helix Hip Joint



To support swing phase hip flexion during walking, the Helix^{3D} Hip Joint contains two expansion springs, one on the right and one on the left side (order no. 4G430, red).

These springs store energy during extension of the Helix Hip Joint in stance phase and return the energy at the beginning of flexion. This results in significantly faster initiation of hip flexion and greater ground clearance during the swing phase.

Two additional normal tension springs (order no.: 4G430, red) and two stronger tension springs (order no. 4G430=2, gray) are initially included with the Helix^{3D} Hip Joint.

This Academy Tech Tip provides step-by-step instructions for replacing the expansion springs in case you want to try the stronger springs during the fitting process or if you need to change the expansion springs when they become worn.

Flex the hip joint to reduce the tension on the springs (Fig. 1a) and open the cover (Fig.1b).



Fig.1a



Fig. 1b Flexion bands under front cover

Use a slotted screwdriver **without** sharp edges to remove the springs from the distal attachments (Fig.2).



Fig. 2 Removing the springs from the distal attachments.

Extend the hip joint to gain access to the proximal attachments and remove the springs from the proximal attachments. Pull the springs out through the top of the hip joint (Fig. 3).



Fig. 3 Disconnecting proximal attachment

Important! Before installing the 4G430 or 4G430=2 expansion springs, be sure to lightly but thoroughly grease the eyelets of the expansion springs with 633F30 special grease (Fig.4).



Fig. 4, Applying grease with a brush

Slip the new expansion springs into the hip joint from the top and attach the springs to the proximal attachment with the slotted screwdriver (Fig.5).



Fig. 5, Slipping the band into place

Flex the hip joint again and open cover to gain access to the distal attachments and attach the springs to the distal attachments.



Fig. 6, Slipping the band into place