Use and application

Omo Neurexa is recommended for use at an early stage in rehabilitation, along with functional and specific muscle training as well as correct use of the arm. However, Omo Neurexa is also extremely effective when used later in the rehabilitation process.

Omo Neurexa needs to be fitted by a therapist/CPO. The patient will require assistance for correct application. Relatives or caregivers should receive detailed instructions regarding proper use.

Sizes

Correct size and application are determining factors to achieve optimal function. The product is available in five sizes from XS to XL, right and left.

<table>
<thead>
<tr>
<th>Art. no.</th>
<th>Size</th>
<th>Circumference</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>cm</td>
</tr>
<tr>
<td>5065</td>
<td>XS</td>
<td>79 – 86</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>87 – 94</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>95 – 102</td>
</tr>
<tr>
<td></td>
<td>L</td>
<td>103 – 110</td>
</tr>
<tr>
<td></td>
<td>XL</td>
<td>111 – 118</td>
</tr>
</tbody>
</table>

• Measure the circumference above the bust, as indicated in the illustration.
Shoulder pain and dysfunction frequently occurs among patients suffering from hemiplegia. In case of flaccid paralysis, the humeral head is often poorly positioned (subluxation); this can result in pain, reflexive muscle dysfunction, and secondary joint damage.

Omo Neurexa was the first product in our stroke range; Neurexa Line. Additionally we also offer Genu Neurexa (art. nr. 8165) preventing hyperextension in the knee and Manu Neurexa (art. nr. 4165), which support and position the wrist.

The Omo Neurexa shoulder orthosis (art. nr. 5065) is an effective aid for the rehabilitation of patients suffering from shoulder pain and dysfunction after a stroke or injuries to the central or peripheral nervous system. Omo Neurexa facilitates active rehabilitation by correctly positioning the arm without restricting movement.

**Function, Effects and Features**

The load reflecting Omo-Neurexa orthosis provides pain relief, improves body posture and joint motion through enhanced momentary control and support of the shoulder joint and arm, for patients who have suffered a stroke or injuries to the central or peripheral nervous system. Omo Neurexa consists of two parts—a shoulder cuff and a forearm cuff. The cuffs are connected by two straps. Omo Neurexa keeps the humeral head of the upper arm precisely inside the shoulder joint socket. This is a prerequisite for the physiological, pain-free range of the three true and two false joints of the pectoral girdle during movement. In addition, Omo Neurexa supports the arm in an extended position with a slight external rotation, which counteracts the development of the typical spastic posture pattern consisting of flexion with internal rotation.

**Position of the humeral head**

**Without**

**With Omo Neurexa**

- Supports and centres the shoulder joint, corrects subluxation and internal rotation, permits free use of the arm
- Impedes pathological movement patterns
- Improves body posture and pain pattern
- Facilitates active rehabilitation, e.g., the user can concentrate on walking instead of worrying about the affected arm
- Pain relieving

Omo Neurexa supports soft tissues

For establishing the correct physiological position of the shoulder joint prevents excessive strain on the capsules, ligaments, tendons, nerves, and muscles, secondary osteo-arthritis, and thereby pain. Functional nerve rehabilitation is in accordance with the diagnosis can commence as soon as pain is eliminated. Properly positioning the humeral head, pain relief, and positioning the upper extremity to constant staticity facilitates the free functional treatment and activity of the pectoral girdle and arm. A muscle stimulation pad that can be attached to the inside of the shoulder orthosis by means of a hook-and-loop strip is available for optional additional stimulation of weakened muscles such as the M. rhomboideus, the lower section of the M. trapezius, or the upper section of the M. latissimus dorsi.

**Without**

**With Omo Neurexa**

- The large surface coverage influences the proprioceptors which has a positive effect on the sensorimotor system
- No requirement to take off during movement training on the shoulder and arm
- Silicon band on inside prevent gliding which secures the function of the orthosis
- Different colours on press buttons simplify application
- PCM (Phase Change Material), a temperature regulating material that prevents heat build up, allowing for long term use
- High user compliance due to the soft and comfortable material
- Soft edges means no chafe problems
- Optional muscle stimulation pad in silicon
- Machine wash at 40°C (104°F) is recommended

Indications and background

Omo Neurexa was developed and tested by Ottobock in collaboration with Prof. Dr. med. Stefan Hesse, Berlin. The product was specifically engineered for patients suffering from shoulder pain and dysfunction due to neurological conditions such as:

- Hemiplegia
- Shoulder pain due to paralysis of musculature in the shoulder area
- Plexus brachialis injuries
- Peripheral nerve damage in the area of the cervical spine and shoulder

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