

Dynamic Movement Orthoses

Dynamic Movement Orthoses are a relatively new approach to managing abnormal tone and neurological dysfunction. The aim is to improve functional abilities through the application of an orthosis designed to meet individual needs and objectives.

Each orthosis is made using a lycra based fabric to achieve a close fit as it is believed that increased pressure on certain muscle groups and improves proprioception leading to better awareness of the affected part of the body.

The resistance created by additional layers of reinforcing material adds a biomechanical influence encourages improved movement control.

As well as improved function from better posture, improved proximal / distal stability and reduced involuntary movements; other benefits may include pain relief, decreased associated reactions, easier transfers and improved therapy sessions. Over time, the desired effect would be to experience the improvement in function and control of movement when the orthosis is removed – i.e. carry-over of the effects experienced when wearing the orthosis.

The onset of this carry-over effect and the factors affecting its duration is dependent on the individual patients presentation and reaction to the treatment.

The orthoses range from a glove for improved hand / upper limb function to a full body suit for whole body involvement. The style and design of the orthosis is based on the wearers' ability and their functional objectives at the time of assessment. An Orthotist and/or Therapist assesses, measures, fits and reviews each orthosis.

Patients with neurological dysfunction as a result of cerebral palsy, stroke (CVA), head injury, multiple sclerosis and other neurological conditions may benefit from wearing a Dynamic Movement Orthosis.

Compliance is an essential part of this treatment both for those wearing the Dynamic Movement Orthoses and those caring for the wearer - i.e. parents, carers, teachers, and therapists. Without acceptance of the daily regime of donning and doffing the orthosis, treatment will not work.

DMO Mission Statement
Dedication to innovation and excellence
ensures quality without compromise.



Dynamic Movement Orthoses

Wearing regime and washing instructions are supplied with each orthosis. Orthoses are dispatched within 3 working days of receiving completed order.

It is important to remember that even though this type of treatment intervention has been in use for several years, there are still areas of this technique that need further research to substantiate some of the effects seen so far.

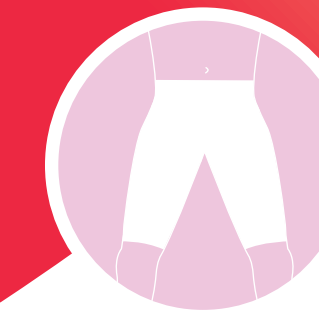
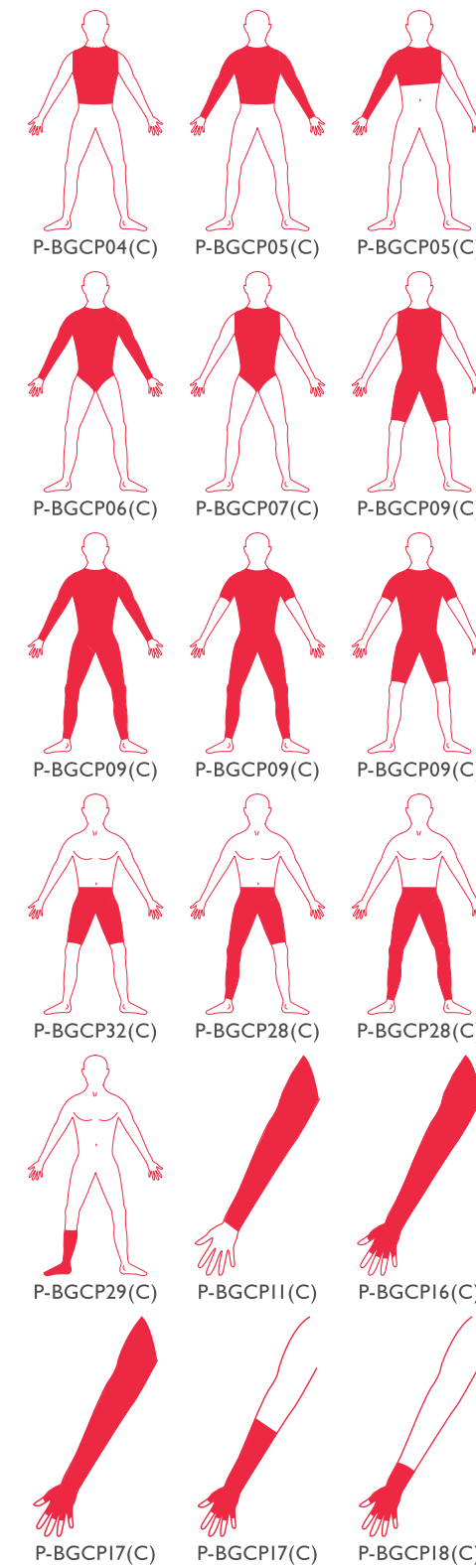
DMO are committed to evidence based practice through ongoing research and development. Online ordering available via website to all certified practitioners.

All orthoses should be prescribed by an Orthotist or Therapist who has been trained to assess, measure, fit & review the orthosis.

To arrange a presentation, demonstration, training course or for clinic details please contact our customer service department:

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DYNAMIC ORTHOSES



Dynamic Movement Orthoses - Suits

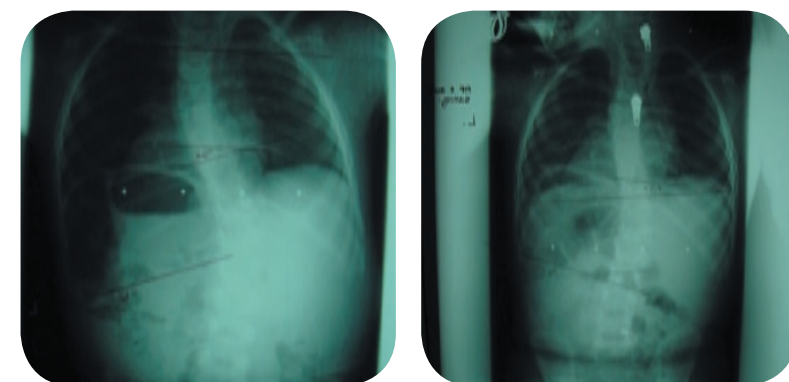
Where improvement in proximal stability is required a suit may affect hip position & trunk stability and benefit patients with:

- Low underlying tone
- Poor sitting ability
- Hyper kyphosis of the thoracic spine
- Shoulder protraction linked with low tone
- Movements associated with athetoid and ataxic cerebral palsy
- Neuropathic Scoliosis
- Mobile Idiopathic Scoliosis
- Spasticity with underlying low tone



Before and after a Dynamic Lycra® suit.
The patient presented with choreo athetosis and a wind swept pattern.

The individual orthosis designs allow prescribers to work with complex postural presentations such as neuropathic scoliosis - here the aim is to maintain or reduce the curve using a layer(s) of material panels specifically positioned to encourage the spine to realign itself. A real alternative to more rigid bracing.



In the X-ray shown a 31° curve was reduced to an 18° curve and the child showed improvement in upper limb function & head control.

Dynamic Movement Orthoses - Gloves

Where improvement in upper limb function is required a glove may affect gross and fine motor skills and the posture of the arm:

- Abduct the thumb
- Extend and encourage control of fingers
- Extend the wrist
- Extend the elbow
- Encourage supination of the forearm

These orthoses have been used in the treatment of hemiplegia, quadraplegia, cerebral vascular accidents, trauma and now in some cases of multiple sclerosis and parkinson's disease.



Before and after a Dynamic Lycra® glove.
The patient presented with hemiplegia & hypotonia.

The glove may feature a long or short sleeve depending on the involvement of the whole arm. As well as the functional improvements, the patient may benefit from a reduction in 'dynamic' contractures and the hemiplegic arm may be lower and straighter when walking.

Gloves may be used in conjunction with a Dynamic Lycra® Suit or Arm Sleeve.



Before and after a Dynamic Lycra® glove.
The patient presented with Charcot Marie Tooth.



Before and after a Dynamic Lycra® glove.
The patient presented with Hemiplegia post stroke.

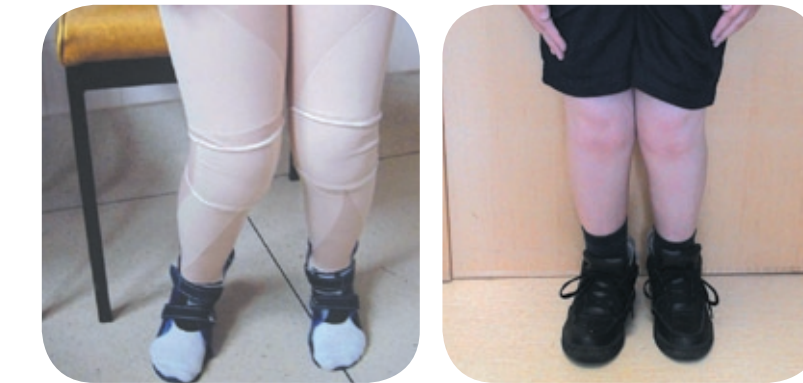
Dynamic Movement Orthoses - Shorts & Leggings

Where improvement in pelvic stability, hip & knee extension and the treatment of gait patterns are required, leggings and shorts may benefit patients.

The individual orthosis designs allow prescribers to specifically treat the affected limb independently.

- Knee extension
- External rotation of the hips
- Increase proprioception stability

These Orthoses have been used in the treatment of hemiplegia, diplegia - flexed pattern walking, low tone to the trunk.



At fitting and after 3 years in Dynamic Lycra® leggings.
The patient presented with diplegia and flexed pattern walking.

At initial fitting some internal rotation was still evident, a second layer of reinforcement was applied. After 3 years the leggings were withdrawn.

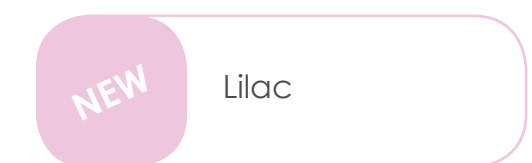
The aim of these orthoses may be to encourage a more upright standing position, reduce a 'scissor' gait / internal rotation of the leg and reduce walking effort.

Leggings may be used in conjunction with other orthoses such as Ankle Foot Orthosis, Dynamic Ankle Foot Orthosis and insoles. Research has suggested that leggings may reduce energy requirement when walking.

All Dynamic Lycra suits, gloves, shorts, socks and leggings are available in the following colours:



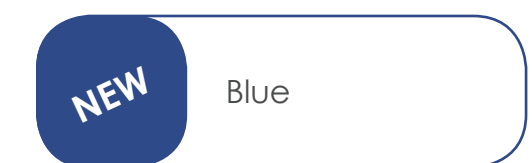
Black



Lilac



Beige



Blue