



Parent / Client Information and Guidance Sheet

This information sheet has been prepared to provide a general information overview of expectations and processes used in the provision of Dynamic Movement Orthoses (DMO) and to answer the most common questions arising from the use of Dynamic Movement Orthotics.

The DMOs are fabric orthoses made from Lycra® based fabrics. They are designed to provide client specific, orthoses to assist in neurological and functional dysfunction often seen as aiding mobility and posture. The benefits of use have been identified in some research studies and from current established practice within the United Kingdom. Initially the orthoses were developed for use in children with cerebral palsy; however, their use has indicated some functional outcomes in other neurological dysfunction like cerebral vascular accidents and multiple sclerosis.

Due to the specialist nature of these orthoses your orthotist / physiotherapist / occupational therapist has arranged for detailed assessment and identification of specific goals, against which outcomes from using the orthosis can be measured. This provides further evidence to assist in analysis of outcomes for ongoing research.

The assessing clinician will identify all ranges of one and muscle movement, sitting posture, and walking ability as part of the assessment. This provides the basis for the orthosis design. Detailed measurement will be required and are taken in lying for suits, short and leggings, whilst gloves, sleeves and socks are taken sitting up. Due to the need for the orthosis to be a close fit there are numerous measurement required to ensure a close and comfortable fit. To provide the stability and directive forces, as well as flexibility and movement, the orthosis should be a snug fit.

The orthosis may improve the clients' posture and walking by reducing excessive muscle tone and improving stability. There may also be additional benefits, such as reduced muscle tremor, increased awareness of body position, increased confidence in movement or improved adaptation to movement. It has been suggested that the DMOs may be hot to wear, however,



research has indicated that this is not the case. In some cases, only modest raises have been noted (1.8 degrees celcius), however, in others there have been a reduction in temperature (1.1 degrees celcius). The differing results appear to be dependent on the clients' diagnosis.

The dedication of the parents/carers to the clients care is invaluable and provides a good basis for a successful outcome. Compliance has been identified through several research studies to be one of the main reasons for the results seen. This means compliance by those wearing the orthoses and encouragement by the parents, carers, educational staff and therapists. The levels of success depend on the acceptance of the daily regime of putting the orthoses on and removing at the end of the day. The orthoses must not be worn at night, as clinical experience suggests that the brain adapts to the effect with a resultant reduction in outcome. In most

cases the client adapts quickly to the orthosis particularly if wearing time is increased over 5/6 days.

In some case, and particularly pertinent to gloves and dorsiflex sock provision your therapist will provide you with exercises to do whilst the orthosis is worn - these should be carried out daily. They are designed to encourage muscle length and strengthening of weakened muscles- a requirement if the client is to be able to eventually stop using the orthoses.

When the client no longer shows a change when wearing the orthosis, normally 2/3 years in duration, the orthosis can be removed gradually. This should only be done with the involvement of your treating clinical team. However, there are occasions when this may not be possible and the continued use of the orthosis is continued as ongoing management of the condition. Your clinical team can review this and advise accordingly.



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Frequently Asked Questions

● How long does my child have to wear the orthosis each day?

Over the first week wearing time is started at

- 1 hour for the 1st day
- 2 hours for the 2nd day
- 4 hours for the 3rd day
- 8 hours for the 4th day
- All day from the 5th day

The orthoses should be worn 7 days a week

DO NOT WEAR the orthosis **AT NIGHT** as clinical evidence suggests that this will adversely affect the way the orthosis will work and the changes seen will be reduced. The client should remain active to gain full benefit.

● Does the suit/leggings/shorts affect toileting?

The orthosis is designed to accommodate nappy changing requirements but also offers options to allow normal toileting whilst still wearing the orthosis. Zips and larger toileting hole arrangements are designed into the orthosis depending on requirements. Please note that females should lean forward when toileting to prevent "splash back".

● Are there any time when the client should not wear the orthosis?

Occasionally due to growth the orthosis can become tight. This is normally identified by cold hands, fingers and limbs becoming cold to touch or blue. If this occurs please notify your clinical team immediately as re-assessment is required

If the client becomes unwell the orthosis should be left off until they have recovered.

In the hot summer there has been reports of over-heating- this is normally due to over clothing and lack of fluids. We supply DMOs to the Far East where the humidity is much higher than in the UK with no problems.

There are occasions where clients with a history of reflux may get re-occurrence. If this is the case the suit can be provided with extra release zips to the abdomen or increased circumferential measurement to the suit when it is measured. It has been reported that by removing the suit for an hour after feeding before refitting that reflux has been prevented.

● What are the washing instructions?

The orthosis should be washed at least once every 2/3 days.

The washing instructions indicate a hand wash, with the orthosis being wrapped up briefly in a dry towel to remove the excess moisture. The orthosis should be hung either on a hanger or by clip so that the air can move around the orthosis-possibly in an airing cupboard, so that the orthosis is ready for use the following day.

Regular washing will prevent the orthosis becoming unduly soiled and will prevent the fabric from becoming stiff due to impregnation of dust etc.

If your orthosis is silver treated this will need to be re-applied after 100 washes as the silver ions start to disperse after 50 washes.

● As a parent/carer, what are my responsibilities?

You may be required to keep a daily diary of how long the orthosis is worn and what you noticed whilst the suit was on. You may also be asked to provide

details of the reasons why the suit was not worn if there are any days when this was the case. This is to assist in recording for the long term evaluation of DMO provision.

If you find the orthosis is becoming tight or excessively worn you should notify your local clinical team for a review. It is possible that the client has outgrown the orthosis and it may require replacement.

● What evidence is there for the use of Dynamic Movement Orthoses?

In the first instance you should discuss this with your local clinical team. If you require further evidence you can visit the SCOPE website or log into www.dmorthotics.com and navigate to the related literature file where all available scientific papers are listed.

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