Lycra Dynamic Splinting

What is Lycra Dynamic Splinting?

Lycra dynamic splinting is a form of support, made from a strong lycra material, which has been found to benefit many people with neurological conditions such as cerebral palsy. The splints and suits are individually designed to fit the whole, or parts of the body and can improve mobility, posture and function.

How does lycra dynamic splinting work and why is it different from other types of splinting?

The splints or suits are made-to-measure and consist of sections of lycra stitched together using certain tensions, directions of pull, thickness and types of material (e.g. water absorbent under the arms). Plastic boning is sometimes added to the garment to provide extra support. The splinting is dynamic, not rigid which means it moves with the wearer, giving support whilst allowing flexibility. By putting the limbs and muscles in certain positions, depending on the intended task, it is possible for the wearer to experience a wider range of functioning.

Will lycra dynamic splinting be suitable for every child or adult with cerebral palsy?

Due to the individual nature of both the splinting and cerebral palsy, it is impossible to generalise about suitability. Individual assessment and prescription of splints is essential.

Is lycra splinting just for children?

No, lycra dynamic splinting is suitable for all ages.

What types of splints are available?

Splints are made to suit individual needs and cover the full range from hand splints to a full body suit (sometimes referred to as UP suits). The type of improvement sought will determine the type of splint used and the individual’s own ability, needs, and temperament.
Are the splints suitable for all types of cerebral palsy?

People with different types of cerebral palsy have benefited from the splints, but like all treatment options, this approach will not suit everyone with the condition.

Is lycra splinting a ‘miracle cure’ for cerebral palsy?

No, this is a relatively new type of management for people with cerebral palsy. There is no cure for cerebral palsy but the splinting can enable an individual to perform specific tasks, for example, achieving independent sitting or more controlled hand function.

Are there reasons for not using lycra splinting?

This will vary, but a splint may not be suitable for someone where adequate monitoring and supervision is not available. Other contraindications may include severe epilepsy, especially if uncontrolled with medication, and chronic respiratory problems.

Are lycra dynamic splints suitable for people who have learning disabilities?

In general terms, learning ability is less important than the individual’s disposition and motivation, but again an individual assessment is required.

How long will a splint have to be worn?

This will vary. For example, wearing a splint for a few years may result in permanent functional improvement for some people, while for others a reduction in use may come about over a period of time. Some people may always need to wear a splint when performing a specific task. As the individual’s abilities change, e.g. the need for less or more support or a change in health status, so may the requirements of a splint. Thus, constant monitoring and review of every individual wearing a splint is crucial to the safe and effective use of lycra dynamic splinting.

How long will a splint last?

On average, a splint will last for 12 months.

What about cleaning the splint?

The splint can be hand washed and has zips for ease of dressing and care needs.

Can a splint be used with a gastrostomy or feeding tube?

Yes – a splint can be made to accommodate a gastrostomy button.

A tight-fitting suit next to the skin – isn’t this hot for the wearer?
Lycra splints are made from synthetic fabric with breathable qualities. Most splints are worn next to the skin and this may mean that the individual will need to wear fewer layers than usual. However, some people might still find wearing the suit makes them hot, especially in summer.

**How much will it cost?**

The cost of treatment will vary depending upon the supplier and the type of splint required. For up-to-date details of costs, please contact individual manufacturers.

**If we make an appointment to be assessed, do we need to do any preparation or bring anything with us?**

The concept of splinting is based on ability to carry out tasks, so before the assessment it is important to consider what tasks are difficult and what you would like to achieve. The therapist will want to hear about what you or your child can currently do, so it is important to consider ability as well as disability.

You may also be asked to bring along any equipment you are currently using such as mobility aids and possibly a video of yourself or your child. This will help the therapist make an accurate assessment. If you are not able to take equipment with you, you should make a note of what you use and when.

Consider whether you would like your physiotherapist, occupational therapist, key worker or conductor to attend the clinic and/or training day with you. If they are unable to attend, ask them for a letter or report which you can take to the assessment. Assessments usually take up to one hour.

**Is there any research into the effectiveness of lycra splinting?**

Capability Scotland conducted a research trial in 1999. Twenty children were fitted with splints made by Second Skin, an Australian company. Ten had body suits and ten had arm splints.

The improvements were measured against the specific goals agreed by the parents and the suppliers and by other standard assessments. The range of improvements varied greatly, but some overall patterns did emerge.

For the arm and hand splint users, there was little measurable improvement in fine motor control. (Tasks tested included unwrapping sweets, cutting with knife and fork, picking up small objects, taking off jacket, catching and throwing). There was however some general improvement in arm and shoulder posture, and in involvement in two-handed activities.

The children who wore full bodysuits had garments which extended from just above the knee, and all suits had both arms included. Sitting posture improved for those who could not sit unaided, but who needed only moderate seating support. Those children who needed more complex seating support did not improve in the suit. Children who had poor balance but could
walk improved fairly quickly, but those who were initially more able in their walking did not make significant improvement.

You can get more details of this trial in the report ‘**Lycra Splinting Used to Assist with Seating Ability**’, available from ASCS (contact details at end of this factsheet).

Scope has published findings of a research project on lycra splinting carried out in the West Midlands. The research found that lycra-based splinting could be beneficial to both children and adults and people with spasticity. Copies of the findings are available from Scope Response and on their website.

Contact:
Scope Response
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Milton Keynes
MK12 5NY
Tel: 0808 800 3333
Email: publications@scope.org.uk
Website: www.scope.org.uk

**Further information**

Below are the contact details of some suppliers’ of lycra splints.

**DM Orthotics Ltd.**
Unit 2, Cardrew Way
Cardrew Industrial Estate
Redruth
Cornwall
TR15 1SH
Tel: 01209 219 205
Website: www.dmorthotics.com

**Second Skin Lycra Splinting:**
60b Hermiston Village
Currie
Edinburgh
EH14 4AQ
Tel: 0131 449 9497
Email: edinburgh@secondskin.com.au
Website: www.secondskin.com.au

**Gilbert and Mellish:**
3 Lightning Way,
West Heath,
Further reading:

- Lycra-based splinting: Can it really help?
  Liz-Scott Tatum.
  Pub: Scope, 2001
  ISBN: 0946828628

- Dynamic postural stability splint.
  Jennifer Ballantyne.

Our Advice Service
ASCS (Advice Service Capability Scotland) is a national disability advice and information service. We specialise in information on cerebral palsy.

We offer:

- information on Capability Scotland services
- advice on cerebral palsy
- general advice on disability issues

We also have a small lending library with resources about cerebral palsy and children's books about disability.

You can get in touch with ASCS by calling us, e-mailing, dropping in or writing a letter.

Advice Service Capability Scotland (ASCS)
11 Ellersly Road
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This infosheet can be made available in other formats e.g. tape, large print.
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