Actico
Cohesive Short Stretch Bandage

Actively targeting lymphoedema

Case studies

Highly effective at reducing oedema.

Comfortable and less restrictive than traditional bandages.

Easier to apply for self bandaging patients due to cohesive benefits.
Case study 1

A 15 year old boy with lymphangiectasia and protein-losing enteropathy, presented to the lymphoedema service with a history of bilateral lower limb oedema since birth. The trunk and genital areas were also oedematous. There was a family history of lymphangiectasia with his sister also affected although to a lesser degree.

He was referred from childhood services via the vascular services and eventually to the lymphoedema service. He had previously been advised to buy an intermittent pneumatic compression pump, although this would be contraindicated in view of the trunk and genital oedema. He had received no other treatment for the lymphoedema but had a history of three episodes of cellulitis in the last year, each of which required hospital admission for intravenous antibiotics.

He had stopped attending school for the last 6 months as he had been bullied, he had become socially isolated and had stopped playing football and swimming. There was a recent referral for psychiatric assessment.

On examination his skin was intact but taut with folliculitis present. The toes and soles of the feet were also oedematous. Limb volumes were measured and Doppler ABPI was measured and found to be 1.2.

Decongestive Lymphatic Therapy (DLT) was prescribed to reduce the oedema volume and improve the condition of the skin and tissues. Treatment consisted of manual lymphatic drainage followed by bandaging on Mondays, Wednesdays and Fridays. Toe bandages were applied, then a layer of ActiFast to protect the skin and absorb perspiration. A foam spiral bandage was used as padding and Actico bandages applied in two layers of figure of eight using 8cm, 10cm and 12cm bandages. The bandages stayed in place between each treatment session and he tolerated them well, gradually becoming more confident and active.

The left leg was treated first for 2 weeks (6 treatment sessions) and a class 4 flat-knit compression stocking fitted at the end of treatment. The right leg was then treated several weeks later in the same way. After a further 2 months both legs were treated simultaneously for a further 2 weeks (6 treatment sessions). By then he had lost 3097 ml's from the left leg and 1997 ml's from the right leg. The genital and trunk oedema had also resolved.

He now feels able to attend school, has a girlfriend and has started to play sports again.

The photos 1 and 2 show his legs after the first treatment to the right leg, while the left remains swollen. Photos 3 and 4 are taken at the end of the treatments.

Case study 2

This 45 year old woman with primary lymphoedema developed swelling of her left leg 20 years ago when she was pregnant with her first child. Around four years ago the swelling became more severe and the tissues of the lower limb became non-pitting and fibrotic. She had been seen by various doctors in the past and had been given a diagnosis of primary lymphoedema but told there was no treatment available for the condition. As a result the lymphoedema had steadily become worse and she had several episodes of cellulitis prior to being referred to the lymphoedema practitioner.

She is married with two children aged 18 and 20 and has a busy job as a senior administrator in a secondary school.

On initial referral to the lymphoedema practitioner the excess limb volume was 30%, with a 51% excess in the distal segment and 21% excess in the proximal segment. She had one course of decongestive lymphatic therapy including manual lymphatic drainage and bandaging with standard cotton short stretch bandages and lost 40% of the excess volume, reducing to an excess volume of 18%.

She then had a period of time without specialist lymphoedema treatment due to lack of local service provision. During this time the excess limb volume increased to 27% with a distal excess of 44% and a proximal excess of 18%.

Once treatment was available, a further course of decongestive lymphatic therapy was prescribed, this time using Actico bandages. A two week course of daily skin care, manual lymphatic drainage, lymphoedema bandaging and exercises was undertaken. The toes were bandaged using a 4cm conforming bandage and ActiFast was applied to the limb to protect the skin and absorb perspiration. Padding was provided with a polyurethane foam spiral bandage and undercast padding. Three layers of Actico bandages were applied daily using 8cm, 10cm and 12cm sizes.
The patient was extremely positive about the Actico bandages, finding them more comfortable and 'less restrictive' than the previous bandages. She felt them to be as effective in providing rigidity while allowing for greater flexibility, making it easier for her to exercise. By the end of the treatment course the patient had lost 40% of the excess volume, reducing to an excess volume of 16%. She was also taught to self-bandage using Actico bandages and found this easier than when using the standard cotton short stretch bandages.

Case study 3

This is a 64-year-old woman with chronic oedema of the lower limbs secondary to trauma, infection and limb dependency. She contracted polio as a child but recovered following a long spell in hospital and was well for many years. Four years ago she retired from her work as a Community Development Worker and had increasing problems with poor health related to post polio syndrome (fatigue, general weakness and poor mobility).

She has a long history of lower leg swelling that became significantly worse following a prolonged hospital admission for a skin graft to her right shin (damaged by wearing a caliper on the right leg). Following the surgery the wound was slow to heal and she suffered the first of several episodes of cellulitis with her legs becoming steadily more oedematous. The patient lives by herself and is self-caring, transferring independently between the bed, her electric wheelchair and the toilet.

When initially seen by the Lymphoedema Practitioner (Photos 1 and 2) the patient required a 3-week course of Decongestive Lymphatic Therapy. Following substantial oedema reduction (Photos 3 and 4) the oedema has been managed using Class 2 (European) flat-knit custom-made stockings. Occasional short courses of multi-layer lymphoedema bandaging are required to reduce swelling and enhance comfort.

Actico cohesive short stretch bandages are used in the bandaging system as the patient finds these more lightweight than other short stretch bandages, making it easier for her to transfer.

The Actico bandages stay comfortably in place over 2-3 days and there is less slippage than when using other cotton short stretch bandages. This reduces the need for repeated daily visits during the bandaging period. Results in terms of oedema reduction appear to be better when using the Actico system as compared to other short stretch systems.

Case study 4

This is a 50 year old woman who had a wide local excision and axillary clearance for left breast cancer three years ago. She developed lymphoedema following a flight and holiday abroad and on first assessment by the lymphoedema service the excess limb volume was 12%. This gradually became more severe over the subsequent year and prior to bandaging the excess volume was 64%. The swelling affected the whole of the arm including the hand and fingers. There was shape distortion with a distal excess limb volume of 80% and proximal excess limb volume of 49%. The tissues were fibrotic, particularly in the forearm.

The patient was seen by the Medical Oncologist and was found to be free of recurrent disease. A course of Decongestive Lymphatic Therapy was therefore prescribed consisting of manual lymphatic drainage, multi-layer bandaging using Actico bandages, skin care and exercises.

Due to work commitments the patient was only able to attend for daily treatment in the first week (5 treatments) and Monday, Wednesday and Friday for a second week (further 3 treatments). Manual lymphatic drainage was given followed by multi-layer lymphoedema bandaging. Appropriate exercises and advice on skin care were also given.

Bandaging: the digits were bandaged using a 4cm conforming bandage and ActiFast tubular bandage was applied to protect the skin and absorb perspiration. A foam chip bag (construsted from a section of tubular bandage filled with medium density foam chips) was used to pad out the palm of the hand. Flexiban was used for protection and to pad out the arm to a conical shape. Actico bandages were then applied. The patient had a relatively small hand and a 4cm Actico bandage was used to cover the base of the fingers, the dorsum of the hand and envelope the base of the thumb. Actico sizes 5cm and 10cm were then used to bandage the length of the arm with 2 layers using a spiral application for the first layer and figure of eight for the second. A further layer of ActiFast was used to cover the bandage system to make it easier for her to sit down into her clothing. The bandages stayed in place and there was no slippage.

Further treatment was not possible due to her having difficulties getting time off work. The patient was therefore taught a self-bandaging technique using Actico bandages. She undertook this for three nights per week over the subsequent two weeks while also wearing a compression class 2, made-to-measure flat knit combined glove and sleeve during the day.

Despite the limited treatment course the patient lost 52% of the excess limb volume, reducing to an excess volume of 31%. The distal excess limb volume reduced to 35% and the proximal excess volume reduced to 29%. The shape distortion resolved and the tissues became softer. Hand swelling also reduced. The patient was very pleased with the result. From being resigned to having a large arm she now felt more in control and pleased to know that something could be done. She was able to wear clothes that previously her arm would not fit into and felt the lymphoedema was far less obvious to other people. Further treatments were organised for the future.

References: Case Study 1 from Moira Boyle, Lymphoedema Nurse Specialist, Forth Valley Lymphoedema Service.
Case Studies 2, 3 and 4 from Anne Williams, Lymphoedema Specialist Practitioner, Esk Lymphology, Lothian, Scotland.
Application instructions for Actico used on arms

Fig 1. Bandage the fingers using a 4cm or 5cm retention bandage.

Fig 2. Apply a layer of ActiFast tubular retention bandage, cutting a hole for the thumb. This will secure wound dressings and padding inside skin folds.

Fig 3. Restrape and protect the limb using appropriate padding.

Fig 4. Extra layers of Flexibon may be used in the cubital fossa.

Fig 5. Secure Actico 4cm or 6cm loosely at the wrist 6cm for smaller hands and bandage the hand, starting with several turns at the base of the fingers with an even tension.

Fig 6. Bandage the elbow in slight flexion using a spiral or figure of eight and continue bandaging up the arm to just below the top of the padding.

Fig 7. Continue with the second layer of Actico bandages, using a spiral or figure of eight technique as required to create a semi-rigid casing throughout the length of the limb.

Fig 8. A final layer of ActiFast can be applied over the bandages.

Application instructions for Actico used on legs

Fig 1. Bandage the toes using a 4cm or 6cm retention bandage.

Fig 2. Apply a layer of ActiFast tubular retention bandage. This will secure wound dressings and padding inside skin folds.

Fig 3. Restrape and protect the limb using appropriate padding. Extra layers of Flexibon may be used in the popliteal fossa or along the tuber of the foot.

Fig 4. Apply Actico 8cm or 9cm over the foot depending on foot size. Make several turns at the base of the toes with an even tension.

Fig 5.螺旋 the leg with a 50s overlap using an appropriate bandage width (10cm or 12cm), maintaining an even tension.

Fig 6. Bandage the knee using a spiral or figure of eight and continue bandaging up the thigh with the required technique to just below the top of the padding.

Fig 7. Continue with the second layer of Actico bandages using a figure of eight technique to create a semi-rigid casing throughout the length of the leg.

Fig 8. A final layer of ActiFast can be applied over the bandages.

Actico sizes and their PIP Codes

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<thead>
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<th>Size</th>
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<tr>
<td>4cm x 6m</td>
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