Haddenham easywrap as part of self-management in lymphoedema and lipoedema: The patient perspective

Natalie Lee, Stacy Pugh BSc (Hons), Robin Cooper

Natalie Lee, Clinical Manager Haddenham Healthcare;
Stacy Pugh, Palliative Care Lymphoedema Clinical Nurse Manager, Wolverhampton Lymphoedema Service, Compton Hospice; Honorary Lecturer, University of Wolverhampton; Trainer at Lymphoedema Training Academy;
Robin Cooper, Vascular/Lymphoedema Nurse Specialist, Salisbury District Hospital

Natalie@hadhealth.com
LYMPHOEDEMA AND CHRONIC OEDema ARE THOUGHT TO AFFECT APPEARLY 260,000 PEOPLE IN THE UK, WITH LIPOEDEMA AFFECTING 11% OF THE FEMALE POPULATION. THIS ARTICLE WILL NOT DETAIL THE CAUSES AND MANIFESTATIONS OF THE DISEASES AS THIS HAS BEEN DISCUSED IN PREVIOUS ARTICLES. HOWEVER, WHAT IS COMMON IN LYMPHOEDEMA, CHRONIC OEDema AND LIPOEDEMA ARE THAT TREATMENT AND MAINTENANCE OF THE CONDITION WILL REQUIRE MANAGEMENT WITH COMPRESSION THERAPY.

Self-management

According to Todd (2014), the concept of self-management encompasses several factors as a method of management for long-term conditions. Central to the concept is the empowering of individuals to manage and monitor their own condition and become partners in their own care (Morgan et al, 2016). Furthermore, the aim of self-management is to slow the progression of the disease while improving symptoms and quality of life (Barley and Lawson, 2016).

Remnerud and Haag (2015) state that therapists have a responsibility to enable patients to manage their own condition, which 80% of patients with long-term conditions would be able to do using supported self-care. According to McGowan et al (2013), much of the research related to self-management of lymphoedema has focused on those with or at risk of breast cancer-related lymphoedema, and more recently lipoedema, which are detailed in published best practice documents.

Psychological support

Psychological support is fundamental to encouraging a person to self-manage, which according to Barley and Lawson (2016) is underpinned by the promotion of self-efficacy. Furthermore, Fetter and Wise (2015) suggest that counselling can help patients feel less isolated and better able to cope with the psychological impact of their disease. Lipoedema UK (2014) state that 86% of women surveyed had low self-esteem, with 87% stating...
that lipoedema had had a negative impact on quality of life. However, Fetzer and Wise (2015) state many patients have not received any referral for psychological support. Additionally, the importance of access to psychological support is documented personally in the case study below.

**Patient education**

Equally important is the availability of information, education and training the patient receives to support self-management and acceptance of their condition (Wigg, 2017). Paramount to supporting self-management is clinicians adopting a person-centred approach, which empowers patients and their carers (Lymphoedema Framework, 2006). Furthermore, the management of patient’s expectations through person-centred care encourages self-efficacy and the ability to set one’s own specific goals (Wounds UK, 2017).

Wounds UK’s (2017) best practice guidelines for lipoedema suggest there are many barriers to self-management, which include a lack of knowledge and skills, low self-esteem and poor relationships with health care professionals. Cooper (2013) states that due to constraints within the community workforce, patients do not receive the appropriate support and education to manage their condition using compression therapy. Although patients receive adequate care in the community, this is less effective and has a negative impact on the patient’s ability to self-manage. Furthermore, Morgan et al (2016) identified that much of the literature around supporting patients with long-term health conditions demonstrates barriers, such as staff shortages, organisations that do not offer adequate coordination of care, and short consultation times. It is well-documented that education within the specialist clinic setting takes place to teach patients self-care techniques, such as self-lymphatic drainage, skin care, exercise and compression therapy. However, Wigg (2017) suggests that clinicians do not really consider the patients learning style when educating in self-management, and that the clinic environment does not allow for flexibility when teaching and empowering patients. In contrast, McGowan, et al (2013) suggest that there is more evidence emerging to support the use of group education programmes as an effective approach of supporting self-management. Dudeck et al (2016) demonstrated that social isolation impacts negatively on quality of life in those with lipoedema, and those with lymphoedema are just as at risk of social isolation (Todd, 2014). McGowan et al (2013) set up a group self-management programme where 10 courses were run between 2010 and 2012. Following an initial assessment, patients were identified as suitable to attend group sessions. Evaluation of the courses was completed retrospectively and it identified that out of those patients that were questioned, all felt more confident and that the course had complemented the treatment previously received. All patients felt more knowledgeable and had a greater understanding of their condition enabling them to take greater control and make changes to lifestyle, such as wearing compression at night time or learning techniques of self-bandaging.

The emergence of techniques such as near-infrared fluorescence imaging (NIRFI) allows for the individual mapping of superficial lymphatics in those with or at risk of lymphoedema, and is being sought by patients to enhance self-management and individualised care (Wigg and Cooper, 2017). Patients in two of the three case studies mentioned below have received individual mapping of the lymphatic drainage routes at LymphVision, the only private mapping clinic in the UK. This has allowed for the clinicians overseeing their care to teach modified simple lymphatic drainage, based on the ‘fill and flush’ technique (Belgrado, 2016), and can be seen to have enhanced their self-management technique.

**The use of adjustable velcro compression wraps in self-management**

Ehmann et al (2016) suggest that velcro wrapping devices are becoming more popular in the treatment and management of lymphoedema and venous disease. However, it is apparent that evidence to support the use of velcro wrapping systems is lacking. Although compression therapy is the mainstay of treatment (Lymphoedema Framework, 2012), many studies do not focus on this treatment modality alone, failing to mirror study designs when conducting research, which impacts on the validity of research outcomes (Thomas, 2014). A recent review, conducted by Williams (2016), of evidence available to underpin the use of adjustable velcro compression wraps, using the databases including Medline, CINAHL and the Cochrane library, among others, concluded that most of the evidence is descriptive and that there is a lack of robust evaluation in terms of the economic value and in the long-term management of chronic diseases. This is further highlighted in the literature review conducted by Thomas (2017). However, it was stated that although there was no evidence published to show that the use of wraps would increase expenditure and although the initial cost is significant, after 12 weeks of use, cost savings can be demonstrated.

Lee and Wigg (2012) state that patients with lymphatic and venous disease are advised to wear compression therapy to ease the burden of symptoms and prevent the disease from progressing. This is further highlighted in the Lymphoedema Framework (2012), which categorises compression into forms, ranging from bandages used in the initial phase of treatment, to compression garments generally used in the maintenance and prevention phase of treatment. According to Lee and Wigg (2012), due to budget and time constraints clinicians are now moving towards using velcro wrapping devices as first-line treatment.

Damstra and Partsch (2013) describe velcro wraps as compression wrapping systems that have been used previously in the management of lymphoedema during the maintenance phase of treatment. Wraps function in a similar way to short-stretch bandaging as they provide graduated compression to the limb, while applying low resting and high working pressures. According to Wigg and
Lee (2014), advantages of using velcro wrapping systems include being less bulky than bandages. Williams (2016) states they are suitable for self-application, easier to apply where patients have problems with garment application, and are a less time consuming, safer option for treatment.

What is easywrap?
The easywrap was introduced to the market in 2017, consisting of products available for the lower and upper limbs. The lower limb garments consist of overlapping, single-layer textile bands, which are secured by easy-to-attach fasteners, with garments being engineered to be conforming and low profile. This means that they can comfortably be worn under most everyday clothing and footwear. easywrap’s UK-patented technology means its bands are engineered to work like a short-stretch bandage with an easy to feel ‘lock-out’ or ‘end-stretch’, making it simpler to achieve the correct level of consistent graduated compression. When easywrap is worn at end-stretch, or close to end-stretch, the garment acts in a similar manner to an entirely inelastic compression garment, preventing further swelling of the limb and offering excellent working pressure; however, as the limb reduces, the elastic material in the bands is free to contract, thereby providing a substantially constant therapeutic compression to the limb, leading to less frequent re-applications and garment slippage.

easywrap lower limb is available in two fabrics: Light (20–30mmHg) and Strong (30–40mmHg), and in three separate parts, which can be used separately or in combination. The easywrap Light is a more stretchy fabric suitable for mild to moderate compression needs. easywrap Strong has a similar stretch to a traditional short-stretch bandage, making it excellent for patients with moderate to severe compression needs. The easywrap arm and hand pieces are a light 20–30mmHg fabric, which is made from premium laminated fabric and lined with a microfine inner support sleeve. The low profile easywrap arm can be applied and removed with one hand and easily tightened to accommodate reductions in swelling.

The foot, leg and thigh sections shown in Figure 1 are designed to be worn over an antimicrobial liner. The thigh section is made up of two parts, a UK-patented, innovative knee wrap, which enables unrestricted movement, and separate thigh wrap. The easywrap lower limb section

Lee (2014), advantages of using velcro wrapping systems include being less bulky than bandages. Williams (2016) states they are suitable for self-application, easier to apply where patients have problems with garment application, and are a less time consuming, safer option for treatment.

What is easywrap?
The easywrap was introduced to the market in 2017, consisting of products available for the lower and upper limbs. The lower limb garments consist of overlapping, single-layer textile bands, which are secured by easy-to-attach fasteners, with garments being engineered to be conforming and low profile. This means that they can comfortably be worn under most everyday clothing and footwear. easywrap’s UK-patented technology means its bands are engineered to work like a short-stretch bandage with an easy to feel ‘lock-out’ or ‘end-stretch’, making it simpler to achieve the correct level of consistent graduated compression. When easywrap is worn at end-stretch, or close to end-stretch, the garment acts in a similar manner to an entirely inelastic compression garment, preventing further swelling of the limb and offering excellent working pressure; however, as the limb reduces, the elastic material in the bands is free to contract, thereby providing a substantially constant therapeutic compression to the limb, leading to less frequent re-applications and garment slippage.

easywrap lower limb is available in two fabrics: Light (20–30mmHg) and Strong (30–40mmHg), and in three separate parts, which can be used separately or in combination. The easywrap Light is a more stretchy fabric suitable for mild to moderate compression needs. easywrap Strong has a similar stretch to a traditional short-stretch bandage, making it excellent for patients with moderate to severe compression needs. The easywrap arm and hand pieces are a light 20–30mmHg fabric, which is made from premium laminated fabric and lined with a microfine inner support sleeve. The low profile easywrap arm can be applied and removed with one hand and easily tightened to accommodate reductions in swelling.

The foot, leg and thigh sections shown in Figure 1 are designed to be worn over an antimicrobial liner. The thigh section is made up of two parts, a UK-patented, innovative knee wrap, which enables unrestricted movement, and separate thigh wrap. The easywrap lower limb section
comes in five different sizes (Figure 2) and will fit larger limbs with measurements up to 100cm on the thigh. There are two different lengths available on the foot and leg sections, with three lengths available in the thigh section.

The easywrap arm and hand sections come in two separate pieces, which again can be used in combination or separately (Figure 3). The garments come in left and right with three lengths and 3 sizes, see (Figure 4).

The simplicity of measuring is detailed in (Figures 5 and 6) as there are only a few circumference and length measurements required to get the correctly sized easywrap for the patient.

Below are three case studies that have been given to the authors for inclusion in this article. The patients wanted to ensure that their experiences were available to a wider audience, so the authors have ensured that the accounts remain as written by the individuals, as much as possible. Confidentiality has been maintained in accordance with data protection legislation (Nursing and Midwifery Council, 2015).

Case study 1: Mrs H

Mrs H is a 55-year-old who was diagnosed with secondary lymphoedema in 1987 following a removal of an enlarged inguinal lymph node in 1985. The lymph node was negative but Mrs H developed septicaemia following her surgery resulting in a 2-week stay in hospital.

Over the years Mrs H has been prescribed several types of compression garments, including wrapping devices, and has performed self-bandaging. She manages on a daily basis with a class 3 flat-knit garment worn with class 2 circular-knit tights over the top. She had previously been given a Juxta-Fit compression wrap, which she states she could only wear for 2 days per week due to the bulk. She was also given a Juzo wrap to try but felt this did not give her enough support.

Following mapping at LymphVision and the offer of surgery, which was declined, it was confirmed that there was backflow starting at the calf and above. A diagnosis of moderately severe lymphoedema, corresponding to dermal backflow stage 3 was made. Mrs H was taught simple lymphatic drainage involving deep breathing, squeezing of exercise ball in three node points, and the fill and flush technique of lymphatic drainage. Other aspects of Mrs H's self-management routine involve a morning and evening skin care and SLD routine, as well as exercise including swimming in her old hosiery, specialist walking routines and ensuring she completes between 6000–13 000 steps per day. Mrs H takes care not to carry heavy bags and avoids sitting for long periods, but ensures her leg is elevated when she does.

The patient describes the impact of her oedema as follows: ‘Always aware of heavier left leg. Although I am very mobile, I need to slightly support leg, for example, if getting out of a low seat in car etc., I always put my best leg forward if posing for photos. I am conscious of clothes I choose to wear.’

Mrs H finds trousers either fit her abdomen but not the leg or vice versa, and previously always chose ankle length skirts; however, since introducing easywrap, she can now wear shorter skirts. Footwear has been problematic for her, always wearing shoes without ankle straps and she finds most styles of boots difficult to get on and off.

As a teacher, Mrs H reports that at work she is ‘referred to as having a disability’ and that her pupils ‘thought I had a wooden leg’. Even when sitting or travelling by plane, Mrs H has many considerations such as:

‘Always elevate my leg at every opportunity, otherwise it feels heavy as if it is getting larger. At a restaurant, elevate onto a spare chair under the table. On a plane I will elevate my left leg, and cover foot with a shawl so as not to offend, with regular walks around the plane. I try and get an aisle seat. Sometimes contacting the airline for a bulk head seat.’

Mrs H states that she gave up jogging 6 years ago, after noticing her leg swelling.

Mrs H was introduced to easywrap in June 2017, at which point she had left leg excess of 2860ml (49.9%). A review of easywrap after 21 days of use on 23 June 2017 found that the limb volume had improved, with the left leg excess reduced to 2353ml (38.4%)—a total reduction...
of 507ml (11.5%). The only change to Mrs H’s self-care regime had been switching from ad hoc wear of Juxta-Fit to more regular wear of easywrap, so that a direct comparison could be made.

Mrs H has stated:

‘Overall I am very happy with easywrap, my top criteria in order of importance to me are: effectiveness in reducing limb, mobility, sizing, ease of putting on, ease of getting off. I am now confident in playing tennis (Figure 7) with light sport leggings on, and because I am exercising with compression, I feel it helps the lymphatic system in my affected leg. I am now in the habit of wearing easywrap at every opportunity. After taking it off I will go out socially in short dresses as I feel my affected limb is not so noticeable. I feel it is much better than Juxta-Fit. Being able to play tennis and wearing for gardening means I was able to maintain compression, exercise and reduce any increase in volume.’

Case study 2: Mrs S

Mrs S started to notice her legs were bigger than others aged 11 years old:

‘My doctors never knew what it was, I was prescribed slimming pills aged 18 years old but didn’t like the side effects and my legs never changed.’

Mr S was referred to the lymphoedema clinic and assessed when she was 26 years old, where she was prescribed compression tights. Her legs became bigger following pregnancy in 2008 and then again in 2010, during, by which time she wore maternity compression throughout. In 2011, Mrs S had a lymphoscintigraphy scan, which confirmed slight lymphoedema in the right leg but mostly lipoedema overall.

‘In 2013-2014 I suffered with terrible depression and through cognitive behavioural therapy counselling I learnt to live with my condition and accept my legs as they were. In 2016, I was mentally in a much better place and I asked my doctor to refer me to Professor Mortimer in London where he assessed me and confirmed I had lipoedema in my arms and legs, and then he mentioned I could get treatment at Hanse Klinik should I want to have surgery. I was quite distressed after this appointment, living with a condition for many years, finally learning to accept it and then being told I could cure it. I was very emotional and couldn’t stop crying, but I knew that surgery would make me feel so much better.’

Mrs S details how group support has helped her following the attendance of the Lipoedema UK conference.

‘What a fantastic event, meeting lots of other ladies with the same condition and finally not feeling alone.’

Following the conference and a weight loss of 21lbs, Mrs S decided to go ahead with liposuction, a series of three operations over 4 months. Post-surgical recommendations from the Hanse Klinik advised that ETO compression was worn for at least 4 weeks after each operation, 24 hours per day for the first week, followed by daily wear between weeks 2–4. Self-bandaging (Figure 8) was also recommended for the first week 24 hours per day on top of the ETO. Although Mrs S followed the recommended guidance:

‘…after a couple of days I really struggled with...’
the bandages, they kept unravelling and they were so big that I had to wear ‘size 8 crocs’, not a good look when you are a size 6 shoe.’

Mrs S found bandaging challenging in that they did not stay in place, so she decided to swap them for easywrap.

‘Wow…What a difference, I put on the foot/ lower leg easywrap and they were so much more comfortable, stayed secure and I could wear normal footwear on top. I did believe this has had massive improvement to my swelling/recovery. I have worn the wraps daily for 6 weeks now and I still sleep in compression but I’ve gone back to wearing my Haddenham Veni compression. Hanse Klinik do advise that it will take up to 4 months for swelling to go down, but I think my legs look great already—only 6 weeks and 2 days after surgery! Now I feel completely amazing, I’m the happiest I’ve ever been in my life. I feel like a proper girl for the first time in my life, I love wearing dresses and skirts, my legs feel light and free. I’m happy wearing compression, I like the support it gives me and it’s a bit like a comfort blanket. I continue to swim, attending local pools and do not feel conscious about people looking at my legs! My next aim is to join a netball team, as I have not worn a netball skirt since I was at school because I was so self-conscious of my legs, but now I can wear a skirt with pride and show off my stunning legs I’ve always dreamed of.’

Case study 3 Mrs W

Mrs W was diagnosed with primary, unilateral lymphoedema when she was 9 years old. She has received bandaging at two different clinics many times over the years and wears two layers of hosiery every day, consisting of a class 4 garment, double layered with a class 3 or a one-legged pair of tights.

‘It is great at keeping the swelling in my thigh down although it does get rather hot. I wear them from the second I get out of bed until I go to bed at night and only take them off when in the shower! I always put plenty of cream on my skin I have learnt how important this is to keep the skin soft and prevent any dry skin. I have had one infection in over 20 years. I think I must be one of the lucky ones where this is concerned.’

Mrs W has several other self-management techniques, which both her and her husband actively participate in to prevent her condition from worsening.

‘I rarely wear sandals, always wearing slippers in the house, as having one infection was enough for me and always think it’s better to be safe than sorry! If I do get a cut, I always keep it clean and covered. Living with constant swelling isn’t always easy. It is uncomfortable and does get hard to cope with at times. One thing that really helps me mentally and physically is knowing I’m doing everything I can to keep the swelling down as much as I can. My husband helps me manage my lymphoedema by bandaging my leg for me regularly and massages my leg, hips, stomach and back every day.’

During 2016, Mrs W attended LymphVision for mapping, which confirmed dermal re-routing and backflow in the affected leg. It also confirmed that lymph was draining into the labia.

‘I had always had a feeling something wasn’t right, but had never acted on it. Let’s be honest a swollen limb is enough to deal with!’

Mrs W was referred to the team working with Professor Jean Paul Belgrado, and attended to have a small procedure where the vessels re-routing into the labia were clipped, ultimately re-routing lymph away from the labia and preventing leakage. Mrs W found that she did not experience any problems during or after the procedure, and following a review and further mapping had confirmation the clipping had been a success.

Over the years Mrs W has tried various types of compression wraps:

‘My first impression of the easywrap is that it was soft and more flexible than the one I normally wear. Working out how to put it on wasn’t hard and seeing the knee piece was brilliant. One thing that always annoyed me with the wraps previously is that there has never really been a knee piece, which has made a difference to my swelling. I was

**CPD REFLECTIVE QUESTIONS**

- In your practice, how do your patients respond to velcro wrap compression therapy?
- In what instances would you change your current treatment plan to include velcro wraps?
- What benefits do you feel velcro compression therapy gives to patients?
easywrap can be worn with normal clothes and footwear.

easywrap is low profile and does not impede mobility.

easywrap can be used in the intensive or maintenance phase of treatment in venous, lymphatic disease and lipoedema.

Self-management using adjustable velcro compression wraps is becoming more common.

very impressed with the knee piece as it provides excellent compression in a place I find particularly stubborn. The main advantage I found was that it fits better under my clothing and was more comfortable to wear all day and do normal everyday things while wearing it. I also managed to do a 3-mile run in it, not something I would have tried with my other wrap as it’s too bulky. Sleeping in the easywrap was absolutely fine. I found that because it isn’t too bulky I never really noticed I was wearing it! Once I took it off in the morning I had ‘dents’ completely covering my leg from top to bottom…amazing… I found this rather exciting. It was clearly moving the fluid out of my leg.’

Measurements taken at review, 3 weeks after commencing wearing easywrap (Figure 9), limb volume was maintained.

The easywrap allows you to have more control over the swelling of your legs, which I think is very important. I can see a visible difference in my leg after wearing this which is exactly the result I think everyone with lymphoedema wants.’

Conclusions

It is clear, from the case studies mentioned that impact of living with lymphoedema and lipoedema greatly affect those who have the condition mentally, emotionally and physically. All three patients have been empowered to self-manage their condition through access to support and treatment from specialised services. Each patient has developed self-efficacy over many years, which has enabled them to effectively self-manage. Clinicians cannot underestimate the importance of enabling patients’ access to psychological support from specialist counsellors and patient groups, along with access to specialist services such as lymphoangiography mapping and consultants or surgeons, which will contribute to increasing individual motivation for self-management. This positively impacts on how patients cope with the day-to-day aspects of their care, such as compression therapy, by promoting patient choice with garments and velcro wrapping devices, enabling patients to individualise their care based on their personal goals. From the case studies it can be concluded that the introduction of easywrap into the patients’ daily routine has enhanced quality of life and the ability to self-manage.

Declarations of interest: This article is supported by Haddenham Healthcare


