

# Selecting and fitting Activa compression hosiery

Compression hosiery has an important role to play in the prevention and treatment of venous leg ulcers (Bennett, 2000) and can support independence as patients find that they can often apply the stockings themselves. The majority of leg ulcers (70%) are venous in origin (Callum et al, 1985) and it is known that sustained compression therapy (such as short-stretch compression bandaging) can reverse the venous insufficiency that leads to leg ulceration (Jeffrey and Nicolaidis, 1990). There is also a greater potential for good nursing management and the correct use of compression therapy to lead to faster healing rates (Effective Health Care, 1999) and reduced nursing time (Jones and Nelson, 2001). However, bandages are not always acceptable to patients, and this can sometimes lead to non-compliance. An alternative to bandaging could be the use of below-knee graduated compression hosiery (Johnson, 2002).

The use of compression and antiembolic hosiery is widespread in hospital and community settings, but there is wide variation in almost every aspect of selection and prescribing practice (Maylor, 2001). There is also a lack of knowledge about when hosiery should be prescribed and what is safe to prescribe relative to the underlying disorder. This is compounded by discrepancy between the level of compression provided by stockings made according to the European method, and that prescribable under the UK Drug Tariff in primary care (Bowskill, 2001). This can result in clinically serious variation in what the patient is given and what his or her condition needs (Maylor, 2001). An understanding of venous physiology, limb measurement skills and hosiery care place the nurse in an ideal position to lead in this area of nursing practice (Maylor, 2001).

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**In the second of two articles describing compression hosiery, Sylvie Hampton focuses on the methods of assessment and practical application of Activa stockings.**

## Activa compression hosiery

Activa supply a range of compression hosiery in all classes and lengths, including some with open toes. The hosiery range is produced in Lycra Soft material with colours of black, brown, honey and sand. The range of colours allows the patient to select the colour they find aesthetically pleasing, and the hosiery style to suit their lifestyle. Bentley (2001) showed a high adherence to treatment with hosiery, which she attributed to the easy application and comfort of Activa stockings.

The dangers of compression hosiery are also similar to those of compression bandaging, as poorly-fitted stockings can cause pressure necrosis. Therefore, it is important that each patient is individually measured to ensure accurate fitting and

correct sub-stocking pressures. The optimum time for measuring would be the beginning of the day, or when the patient has been on bed rest throughout the day.

Measuring is easily achieved by placing the tape (with the patient standing) on the thickest part of the calf and the thinnest part of the ankle above the ankle bone. For closed-toe hosiery, the foot length is required. Activa hosiery comes in four sizes: small, medium, large and extra-large; each with corresponding thigh, calf, ankle and foot measurements (Table 1).

Before fitting the hosiery, ensure that there are no painful areas that may be affected by the stocking. Ensure that any dressing is secure and not too bulky. Activa Healthcare supply three classes of compression hosiery:

- Class I; applies 14–17 mmHg of pressure. Used for 'tired legs', varicose veins and mild oedema
- Class II; applies 18–24 mmHg of pressure. Used for severe varicose veins, prevention of ulcers, reduction of severe oedema and reduction in risk of ulcer recurrence
- Class III; applies 25–35 mmHg of pressure. Used for lymphoedema, prevention of venous ulceration, very severe varicose veins and post-phlebitis or cellulitis. Can be used for treatment for patients who are reluctant or refuse to use compression bandage therapy.

**Table 1.**

### THE RANGE OF ACTIVA HOSIERY SIZES

Size	Distance around thigh (A), calf (B), ankle (C), foot (D)			
	A	B	C	D
Small	16–21 inches (40.5–53.0 cms)	12–14 inches (30.5–37.5 cms)	7–10 inches (19.5–25.5 cms)	8–9 inches (20.5–24.0 cms)
Medium	17–21 inches (43.0–55.0 cms)	13–15 inches (33.0–40.0 cms)	8–10 inches (21.5–27.5 cms)	9–10 inches (23.0–26.0 cms)
Large	19–23 inches (48.0–60.5 cms)	14–17 inches (35.5–43.0 cms)	8–11 inches (22.5–29.5 cms)	10–11 inches (25.5–29.5 cms)
Extra-large	21–26 inches (53.0–66.0 cms)	15–18 inches (38.0–46.0 cms)	9–12 inches (23.0–32.0 cms)	10–12 inches (26.5–32.5 cms)

**Figure 1: The Actiglide garment makes applying the Activa stocking easy.**



Activa also supply air socks. These are vitally important to anyone undertaking a long-haul flight (Scurr et al, 2001). These air socks are class I, so although they offer protection against deep vein thrombosis they will not reduce the circulation to the foot in patients with occult and inadequate arterial blood flow.

### Applying Activa hosiery

Before applying class II and III stockings, the patient must be assessed for arterial disease using a hand-held Doppler. The use of a Doppler to measure the ankle and brachial systolic blood pressure, along with a simple calculation, provides assessment of arterial status in the patient's legs. Once the ankle brachial index pressure is established at a safe level of above 0.8, the stockings can be applied.

The necessary tightness of the hosiery will offer a serious challenge to both patient and carer. The stocking ankle, which is the smallest part of the stocking,

is required to pass over the largest part of the leg, which is the heel. When the stocking is bunched into the hands and pulled, the bulk of the bunch makes it nearly impossible to stretch the material over this area. Therefore, the most sensible way of applying the stocking would be to turn the top of the stocking down until the inside of the stocking foot is exposed. The patient's foot is placed inside the stocking foot and the length of the stocking can then be easily pulled over the heel.

By far the simplest method of application is through the use of Actiglide (Figure 1), a special 'slide' garment that allows the stocking to be easily pulled onto the leg. This garment could offer patients independence as they may be able to apply the stockings themselves.

### Conclusion

Compression hosiery offers another, sometimes simpler, pathway to prevention and treatment of leg venous ulcers.

The Activa hosiery range provides a choice of stocking classes in order to address different problems, and allows the nurse to provide the patient with high-quality care in prevention and treatment of these problems. **NRC**

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## KEY POINTS

- **Compression hosiery provides consistent sub-stocking pressures which is important, particularly when being applied by a carer who is unable to achieve correct levels of pressure with compression bandages.**
- **Those patients who are able to apply stockings with the aid of Actiglide may become independent with bathing. This could be particularly useful in cases of low compliance.**
- **The Activa range of hosiery is wide, and is supplied in all classes and lengths with both open and closed toes.**
- **The Activa range of compression hosiery offers an alternative pathway to prevention and treatment of venous leg ulcers.**