

Anti-embolism stockings (AES)

Fitting of Anti-embolic Stockings for Thromboembolic Prophylaxis

Pedal pulses should be checked prior to fitting stockings to ensure adequate arterial circulation. If absent, do not apply stockings and seek medical advice.

Explain to the patient that they need to wear stockings to help prevent Deep Vein thrombosis developing. This information is also in the patient advice booklet 'How to prevent blood clots whilst you are in hospital and after you return home', which the patient should be given on admission.

Poorly fitting stockings will result in complications. A stocking that is too big will often not be effective in preventing VTE. A stocking that is too small or the wrong length will result in tissue damage or even produce a tourniquet effect that can cause venous or arterial thrombosis.

Both limbs should be measured prior to fitting of the stockings and if necessary a different size fitted to each leg as indicated by the manufacturer's recommendations. Measurements should be taken using a tape measure and in centimetres. The circumference of the leg should be measured two fingers width above the external malleolus for below knee stockings. For thigh length still take the ankle measurements then confirm the widest part of the thigh is also required. These measurements should be recorded in the nursing notes. If the correct size is not immediately available, it should be ordered from supplies and the patient should be left without anti-embolic stockings until the correct size can be obtained.

Applying Anti-embolic Stockings

Insert your hand as far as the heel pocket, grab the centre of the pocket, and turn the stockings inside out. Position the stocking over the patient's foot, centring the heel in the pocket and the inspection opening under the toes. Place two or three fingers of each hand in the gathered section and ease the lower part of the stocking around the calf and up the leg. Knee length stockings should be placed to below 2 fingers breadth (2.5-5cm) of the knee joint to allow for unencumbered knee movement. Thigh length stockings should be placed to the top of the thigh and should sit 2.5-7.5cm below the base of the buttock (gluteal furrow). The gusset should be facing inside the leg. The fabric of the stockings should be smooth against the skin with no bunching.

Stockings should never be cut, folded or rolled down, as this will adversely affect the pressure gradient and could create a tourniquet effect leading to DVT or pressure damage.

Record the date and time you apply the stockings, their length and size in the nursing notes. And sign and date in drug chart.

For further information or training contact the Thrombosis & Anticoagulation Service ext 64217

Contraindications - Do not offer AES in:

- Suspected/ proven peripheral arterial disease
- Peripheral arterial bypass grafting
- Peripheral neuropathy or other causes of sensory impairment
- Local conditions where stockings may cause damage eg: fragile skin, dermatitis, gangrene or recent skin graft
- Known allergy to material of manufacture
- Severe leg oedema
- Major limb deformity or unusual leg size or shape preventing correct fit
- Caution with venous ulcers or wounds

Guidance for the use of AES:

- Use AES that provide graduated compression and produce calf pressure of 14–15 mmHg (Equals 14–18 mmHg at the ankle).
- Patients legs must be measured and ensure the correct size AES is provided.
- Stockings should be fitted and patients shown how to use them by staff trained in their use.
- Offer assistance if they are not worn correctly.
- Re-measure legs and re-fit AES in patients who develop oedema/ postoperative swelling.
- Encourage people to wear their stockings day and night until mobility returns to normal.
- Remove AES daily to inspect skin condition, and for hygiene. In people at risk of skin injury (significantly reduced mobility / poor skin integrity/ any sensory loss) inspect the skin more than once a day (note heels and bony prominences).
- Stop use of AES if skin marking, blistering or discolouration of the skin, or if they cause pain or discomfort.
- Offer [intermittent pneumatic compression](#) as an alternative, if appropriate.
- If patient is discharged from hospital wearing anti-embolism stockings (AES), they should be worn until mobility returns to baseline
- Patients/ carers must be educated in the correct use and fitting of AES to avoid complications.
- If patient or carer is unable to remove and replace AES then patient should not be discharged with AES

Intermittent pneumatic compression devices (IPC)

- Do not offer intermittent pneumatic compression to people with a known allergy to the material of manufacture.
- Advise the person to wear their device for as much time as possible