

CATEGORY: COMPRESSION BANDAGES

3M™ COBAN™ 2
COMPRESSION SYSTEMMAKING
THE CASE

ABOUT COBAN 2 COMPRESSION SYSTEM

The 3M™ Coban™ 2 Compression System is a 2-layer compression bandage system that is designed to deliver the therapeutic compression required for treating patients with venous leg ulcers (VLUs). There are two forms of the system: 3M™ Coban™ 2 Layer and 3M™ Coban™ 2 Lite.

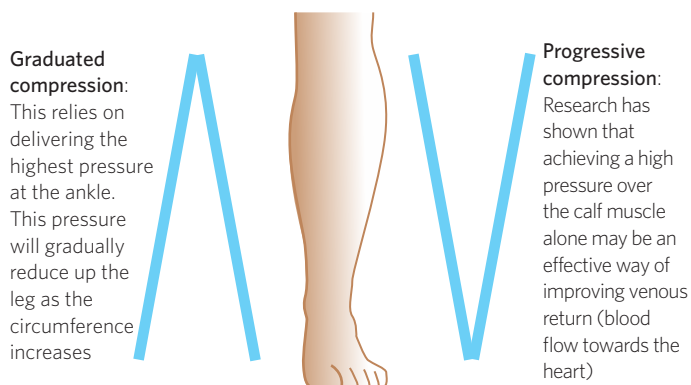
Coban 2 Layer is suitable for mobile and immobile patients with VLUs and chronic oedema, including lymphoedema and other conditions where compression therapy is appropriate (e.g. for patients with an ABPI ≥ 0.8 and < 1.2). Coban 2 Lite achieves a lower resting pressure than Coban 2 and may be more suitable for patients who are less tolerant of compression therapy, including those with a leg ulcer of mixed aetiology and an ABPI ≥ 0.5 and < 1.2 .

Coban 2 comprises two layers that work together as a system

- 1a** Inner latex-free foam sheet: highly conformable and moulds to the shape of the leg. Applied foam-side down
- 1b** Cohesive backing: has adhesive properties that bond to the outer layer of the compression system, reducing the likelihood of slippage
- 2** Outer short-stretch cohesive bandage: interlocks with the inner layer creating a stiff bandage system with high working pressures and low resting pressures
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HOW DOES COBAN 2 DELIVER COMPRESSION?

Unlike other compression systems, Coban 2 is only available in one size. This is because the kit does not rely on an ankle measurement for selection. When applied, the two layers bond together to form a stiff compression system that resists being stretched when the calf muscle expands and contracts during movement. This allows the system to deliver high pressure over the calf muscle (with lower pressures at the ankle). This is known as progressive compression. Other compression systems work on the principle of graduated compression (highest pressure at the ankle) (Wounds International, 2013).



According to a recent consensus (Harding et al, 2015), the attributes of an ideal compression system include:

- ✓ Delivers therapeutic compression and has high stiffness
- ✓ Permits good anatomical fit
- ✓ Stays in place, does not slip
- ✓ Is comfortable
- ✓ Allows patient to wear own shoes and maintain normal gait
- ✓ Is easy to apply and remove
- ✓ Requires minimal training in fitting and application
- ✓ Is non-allergenic
- ✓ Is aesthetically acceptable

CLINICAL EVIDENCE FOR COBAN 2

A recent retrospective analysis of the NHS case records of 675 patients with a VLU, randomly selected from The Health Improvement Network (THIN) database, reported cost and healing data for Coban 2 (n=250), a typical 4-layer bandage system (n=175), and another 2-layer bandage system (n=250) (Guest et al, 2015). The authors of this real-world study report that Coban 2 compared with the other two compression systems is more cost-effective due to a higher 6-month healing rate, better health-related quality of life and a lower cost of management of VLUs (Guest et al, 2015).

A previous randomised controlled trial (RCT) and case study evaluations (Vowden et al, 2011) have reported:

- Substantially less slippage after 3–7 days with Coban 2 compared with a popular 4-layer bandage system (Moffatt et al, 2008)
- Easy to apply and good conformability to a variety of limb sizes (Hampton et al, 2006)
- Up to 7-day wear time (average wear time 6.3 days) (Stephens and Arrowsmith, 2008)
- Faster reduction in oedema, pain and exudate levels than traditional multi-layer compression systems (Bain, 2008)
- Ulcer improvement and maintenance of periwound skin integrity (Hayes and Day, 2007; Stephens and Arrowsmith, 2008)
- Less bulky than 4-layer systems, with evidence of increased mobility and ankle movement (Hayes and Day, 2007)
- Improved comfort and satisfaction with system (e.g. cooler to wear) (Hayes and Day, 2007; Stephens and Arrowsmith, 2008)
- Improved concordance with treatment (Hayes and Day, 2007)
- Strong preference by patients for Coban 2 compared with a 4-layer bandage or previous system used (Moffatt et al, 2008; Stephens and Arrowsmith, 2008).

Studies have also found Coban 2 Lite to be safe and well tolerated by patients with evidence of concomitant arterial disease (ABPI 0.5–0.8) (Junger et al, 2013).

About the THIN database: The THIN database is a nationally representative database of patients registered with general practitioners in the UK. For further details go to: www.thin-uk.net

AVAILABILITY

Coban 2 Compression System is available via the Drug Tariff and NHS Supply Chain.

Explanation of how to use this guide: This document can be used to make the case for implementing effective prevention and management measures and may be supported by data from your own care setting. As well as economic impact, it is important to know the impact of interventions on patient quality of life and outcomes.

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MAKING THE CASE

COMPRESSION THERAPY AND VENOUS DISEASE

Compression therapy is considered the gold standard of care for treating active VLU (Harding et al, 2015). A Cochrane review of compression therapy concluded that VLUs heal more rapidly when compression is used than when it is not (O'Meara et al, 2009).

Optimising the benefits of compression therapy involves the application of the right type of compression (Harding et al, 2015). High stiffness systems (e.g. inelastic) are preferable because they produce the greatest improvements in venous blood flow and are generally more comfortable as they offer lower resting pressures. A recent RCT found that when all the available stiff compression systems were compared, 2-layer systems had the highest probability of being clinically- and cost-effective (Ashby et al, 2014).

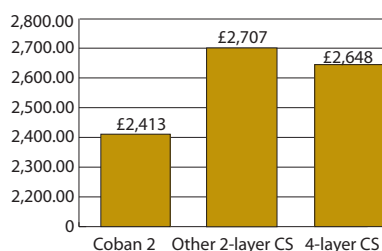
The choice of the compression system can impact significantly on patient mobility. Stiff compression systems enhance calf muscle activity, while the reduced bulk of a 2-layer system offers further benefits in allowing patients to wear their own shoes; this encourages a normal gait and maintains ankle flexibility. In patients who have restricted mobility, but who are able to stand or flex their toes regularly as part of their daily routine, stiff compression therapy systems are preferred (Harding et al, 2015).

ECONOMIC BENEFITS OF USING COBAN 2

Using a theoretical model, Franks and Posnett (2003) were able to demonstrate that high compression therapy is a cost-effective intervention in the management of VLUs.

A retrospective analysis of the case records of 675 patients with VLUs (THIN database) recently highlighted the mean 6-monthly NHS cost of management. Key cost drivers included community nurse visits (61-64%), practice nurse appointments (12%), dressing and compression bandages (10%), along with GP and hospital outpatient visits (10%). The healthcare costs for managing a patient with Coban 2 was 11% and 9% lower than the cost of managing a patient with other 2-layer compression systems or 4-layer bandage systems, respectively (Figure 1) (Guest et al, 2015).

Figure 1: Coban 2 was found to be a cost-effective approach as it led to improved healing rates, better quality of life and a reduction in management costs when compared with three alternative compression systems (Guest et al, 2015)



This analysis highlighted some of the practical problems associated with wound care in the community (e.g. lack of continuity of care). It is likely that compression systems that are quick and easy to apply, combined with a simple ABC approach to VLU management (Harding et al, 2015), will enhance healing of VLUs and encourage concordance, providing further economic benefits.

To quantify costs for managing VLUs, do you require a bespoke calculation that:

- ✓ Is quick and easy to perform?
- ✓ Uses data from the THIN study (Guest et al, 2015)?
- ✓ Demonstrates cost-savings based on individual patient populations?
- ✓ If yes to the above, contact your local 3M representative

CLINICAL BENEFITS OF USING COBAN 2

Coban 2 is quick and easy to apply. It is designed to be applied at full stretch, minimising application variability for more consistent compression (Collier and Schuren, 2007). Therapeutic compression is maintained over time with Coban 2, reducing slippage and frequency of reapplication (Moffatt et al, 2008). The 2-layer system is less bulky and cooler than 4-layer systems. This can increase patient mobility (with associated beneficial changes in the microcirculation) and reduce pain (Moffatt et al, 2008; Junger et al, 2013), with concomitant reductions in oedema and improvements in wound healing (Bain, 2008; Hayes and Day, 2007).

PATIENT BENEFITS OF USING COBAN 2

Studies show that patients tolerate the system well and often prefer Coban 2 over other compression systems (Moffatt et al, 2008; Hampton et al, 2006). Patients find the system aesthetically pleasing and can wear their choice of clothing and footwear. Coban 2 can also be worn for up to 7 days with no slippage or sagging (Hampton et al, 2006). Improved comfort levels also mean that patients are more likely to be concordant with their care (Hayes and Day, 2007). Improved concordance is associated with improved healing rates. In the recent retrospective analysis, the Coban 2 group had significantly more VLUs healed at 6 months (26%) compared with the other 2-layer systems (11%) and 4-layer bandaging (2%). This also resulted in better health-related quality of life over 6 months (Guest et al, 2015).

If you were to explain to a colleague why you have chosen Coban 2, what would you give as the main benefits? For example, it:

- ✓ Is quick and easy to apply
- ✓ Provides effective compression
- ✓ Is conformable and has a low level of slippage
- ✓ Can be used for a wide range of patients
- ✓ Is less bulky than 4-layer compression systems
- ✓ Is comfortable to wear, reducing problems with concordance

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WHAT COST-SAVINGS COULD YOU MAKE IN YOUR PRACTICE USING COBAN 2 COMPRESSION SYSTEM?