### 3M™ Coban™ 2 Compression System Application for the Leg and Foot

#### Materials & Positioning
- For many patients, it is necessary to apply the full leg application in two stages.
- Apply the lower limb bandage with the patient sitting or lying comfortable and then have the patient stand to apply the upper leg bandaging.
- For full benefit of compression therapy, it is important that the leg is supported in a relaxed position throughout the entire application.
- If a wound is present, foam dressings are most effective to manage exudate.
- Select the 10cm (4 inch) 3M Coban™ 2 Comfort Foam Layer and 3M Coban™ 2 Compression Layer for most lower legs.
- 15cm (6 inch) or 20cm (8 inch) Coban™ 2 Comfort Foam Layer and Coban Compression Layer should be used to cover the knee and thigh.

#### Application for Below the Knee

**Layer 1: Comfort Foam Layer**
- Apply this layer with the foam side against the skin, using just enough tension to conform to the shape of the leg with minimal overlap.
- Cover the skin with as thin a layer as possible with no gaps.
- When skin folds (pleats) are present, use pieces of comfort foam layer folded with foam side out to separate them.

**Sequence:** stretch–press and mould–relax.

1. **Step 1:** With the foot in a 90˚ dorsoflexed position, start the application with a circular winding at the base of the toes, beginning at the fifth metatarsal head. Beginning at the fifth toe provides neutral, comfortable foot alignment.
2. **Step 2:** The second circular winding should come across the top of the foot so that the middle of the bandage width approximately covers the articulating aspect of the ankle joint. Bring this winding over the toes and lay it over the top of the foot where it overlaps the underlying material.
3. **Step 3:** Cut the wrap and gently press into place. The posterior plantar surface of the foot is not completely covered.
4. **Step 4:** With minimal overlap, proceed up the leg in a spiral technique with just enough tension to conform smoothly along the contours. If the bandage spiral does not conform with minimal overlaps, the bandage may be cut to reposition the application. Continue up the leg to cover all skin with as thin a layer as possible. **NOTE:** Individual windings may be used for highly contoured legs.
5. **Step 5:** The top of the bandage should end just below the malleolus, foot, or two fingers width below the crease at the back of the knee.
6. **Step 6:** Apply light pressure to the comfort layer with your hands. This helps to mould the bandage to the patient. The end of the comfort foam layer may be secured with tape. **NOTE:** If the toes are going to be included, apply compression layer after the toe application (see “Application for Toes” below).

**Layer 2: Compression Layer**
- Apply even compression with at least two layers. Even compression is best achieved when the material is applied at full stretch.
- It is recommended that you hold the roll close to the foot and limb throughout the application for controlled, even compression.
- If “bulges” are noted after the application, apply additional compression layer until the limb appears smooth.

1. **Step 7:** With the foot in a 90˚ dorsoflexed position, start the application with a circular winding at the base of the toes, beginning at the fifth metatarsal head.
2. **Step 8:** Complete two or three figures of eight around the ankle ensuring that this entire heel is covered.
3. **Step 9:** Proceed up the leg with 50% overlaps at 100% stretch, ending the application approximately 7.5–10cm beyond the ending of the comfort layer. This will allow this comfort layer for the knee and thigh to overlap with the lower leg comfort layer for secure cohesion.
4. **Step 10:** As you end the application, apply light pressure and cut off the excess material.

**Application for Knee and Above the Knee**

**Layer 1: Comfort Foam Layer**
- Apply this layer with the foam side against the skin, using just enough tension to conform to the shape of the leg with minimal overlap.
- Cover the skin with as thin a layer as possible with no gaps.
- When skin folds (pleats) are present, use pieces of comfort foam layer folded with foam side out to separate them.

**Sequence:** stretch–press and mould–relax.

1. **Step 11:** Reposition the patient to a standing position and flex the knee to allow the toes by placing a roll of bandage under the heel.
2. **Step 12:** Select a 15cm or 25cm comfort foam layer, depending on the size of the limb.
3. **Step 13:** Apply the comfort layer by minimally overlapping with the comfort layer below the knee. Cover the knees with a spiral or figure of eight technique to ensure that the middle of the bandage is positioned over the articulating surface and crease of knee.
4. **Step 14:** Proceed to the foot with spiral windings with 50% overlap at 100% stretch. Ensure at least two layers of compression material with a smooth application.
5. **Step 15:** Apply two full circular windings of comfort foam layer at the top of leg to prevent edge roll. As you end the application, apply light pressure and cut off the excess material.
6. **Step 16:** Mould the entire application to conform to the anatomy.

**Layer 2: Compression Layer**
- Apply even compression with at least two layers. Even compression is best achieved when the material is applied at full stretch.
- It is recommended that you hold the roll close to the limb throughout the application for controlled, even compression.
- If “bulges” are noted after the application, apply additional compression layer until the limb appears smooth.

1. **Step 17:** Begin the 15cm compression layer application with a 10% overlap of the below knee bandage. Cover the knee using spiral windings or figure of eight as needed to conform. Ensure that the center of the bandage is in the center of the popliteal crease and centered over the patella.
2. **Step 18:** Proceed up the leg with spiral windings with 50% overlap at 100% stretch, ending the application approximately 7.5–10cm beyond the ending of the comfort layer. This will allow this comfort layer for the knee and thigh to overlap with the lower leg comfort layer for secure cohesion.
3. **Step 19:** Mould the complete application to conform to the anatomy.
4. **Step 20:** After toes have been wrapped, apply one circular winding around the foot to secure.
5. **Step 21:** Mould the application to the anatomy of the foot.
6. **Step 22:** After toe wrapping, continue with the compression layer for the leg (see Steps 7–10 above).

**Two Options for Application for Toes**

**Option A: Individual Toe Wrapping**
1. **Step A1:** Using the 2.5cm compression layer roll, wrap each toe individually beginning distally. Apply layers at 90˚ starting at the first circular winding with "relax-breaks" where, after each semi-circular winding, that area is moulded to the underlying layer. A rigid sleeve is then provided with comfortable pressure. Sequence: stretch–press and mould–relax.
2. **Step A2:** When finishing the first toe, make a circular winding to provide comfort for further toes bandaging.
3. **Step A3:** Wrap remaining toes following steps A1, A2 and A4. The cohesive properties of the material allow toe bandaging to be carried out in areas without the need for multiple circular windings around the foot. **NOTE:** It is more comfortable to not bandage the 5th toe.
4. **Step A4:** After toes have been wrapped, apply one circular winding around the foot to secure.
5. **Step A5:** Mould the application to the anatomy of the foot.
6. **Step A6:** After toe wrapping, continue with the compression layer for the leg (see Steps 7–10 above).

**Option B: Toe Boot**
- If the toes are very swollen, it may be more comfortable to wrap with a toe boot as a unit.

**Sequence:** stretch–press and mould–relax.

1. **Step B1:** Fill each web space with pieces of double-folded comfort foam layer, foam side out and trimmed to shape.
2. **Step B2:** With a 5cm wide comfort foam layer, make a circular turn without tension, over the toes and heel over the 5th toe. Make a few slits to ease conformance over the toes.
3. **Step B3:** Cover the open areas over and under the toes. Trim to fit and mould to conform.
4. **Step B4:** Using a 5cm compression layer roll, without tension apply a circular winding from toes to heel. Cover the dorsal and plantar toe areas with compression layer applied at full stretch in a fan fold technique with semi-circular windings. Avoid circular windings around toes.
5. **Step B5:** Mould the application to the anatomy of the foot.
6. **Step B6:** After toe wrapping, continue with the compression layer for the leg (see Steps 7–10 above).

**Stretch-Press/Mould-Relax Technique**
- To apply full stretch application for comfortable circumferential windings, apply the compression layer of full stretch with "relax-breaks" where, after each semi-circular winding, that area is moulded to the underlying layer.

1. **Step 1:** Make first circumferential winding with relaxed tension.
2. **Step 2:** With one hand, press and hold to underlying layer. Relax tension.
3. **Step 3:** Apply the next semi-circular winding of full stretch.
4. **Step 4:** Press and hold to underlying layer and mould to the anatomy. Relax tension. Repeat Steps 3–4.

**Bandage Removal**
- Dipping the scissor tips into cream allows comfortable and easy bandage removal.