Tips for Trouble-Free Taping

- Smoothing
- Tape removal
- Applying a compression dressing

3M Medical
from the 3M Health Care family
Tape Application

- Tape should be applied without tension to clean, dry skin.
- A clipper may be used to remove hair, if necessary.
- To protect at-risk skin, 3M™ Cavilon™ No Sting Barrier Film may be applied and when thoroughly dry, tape may be applied over it.
- In general, do not encircle a limb completely with tape.
- If distention is anticipated, use a tape that stretches or a self-adherent wrap to secure the dressing or tubing.

A. General taping
Apply the tape without tension, gently but firmly stroking the surface to maximize adhesion. Tape should extend at least one-half inch beyond the dressing. Tape should not be pulled or stretched when applied. If swelling does occur, loosen and re-fasten or replace tape to relieve the tension.

B. When compression is needed
1. Place first section of tape without tension onto skin on one side of the dressing, gently pressing downward.
2. With one hand, secure tape on one edge of the dressing while slightly stretching next section of tape over the dressing.
3. Secure tape on opposite edge of the dressing.
4. Press remaining tape onto skin without tension. Compression should come from the multiple layers of dressing material, not from excessive tension in the tape. Skin distention under tape may result in blistering and should be relieved as soon as possible.

C. When distention is anticipated
Foam tapes generally stretch in all directions; however, non-woven soft cloth tapes, such as 3M™ Medipore™ Soft Cloth Surgical Tape, have more stretch in the cross-direction and on the bias. The direction of the stretch should be considered when securing a dressing or tubing to an area that is at high risk for distention, edema, hematoma formation, or movement. Anecdotally, applying soft cloth tape parallel to the incision appears to be associated with fewer skin tension injuries than taping perpendicular to the incision.

Tape and Transparent Dressing Removal
Proper tape removal is critical in reducing the occurrence of traumatic skin injuries.

A. Tape strips.
1. Loosen edges of tape. If necessary, press a small piece of tape onto a corner to start an edge of the tape.
2. Stabilize the skin with one finger. Remove tape “low and slow” in direction of hair growth, keeping it close to skin surface and pulled back over itself. Removing tape at an angle will pull at the epidermis increasing risk of mechanical trauma. As tape is removed, continue supporting newly exposed skin.

B. 3M™ Tegaderm™ Transparent Dressing.
Stretch method
- Grasp one edge or catch a “corner” of the Tegaderm dressing with a piece of tape.
- Gently lift edge.
- With other hand, place fingers on top of dressing to support skin.
- Gently stretch the Tegaderm dressing straight out and parallel to skin. This will release the adhesion of the dressing to the skin.
As the Tegaderm dressing is loosened, you may either (1) alternately stretch and relax the dressing or (2) “walk” your fingers under the dressing to continue stretching it. With both approaches, one hand continually supports the skin adhered to the Tegaderm dressing.

Tape method
This procedure is similar to the method described for removing tape strips.
- Stabilize skin next to the Tegaderm dressing.
- With other hand, grasp one edge of the dressing.
- Slowly peel dressing back over itself, “low and slow,” in direction of hair growth.
Removing dressing at an angle will pull at the epidermis, increasing risk of mechanical trauma. As dressing is removed, continue moving finger as necessary, supporting newly exposed skin.
Reducing The Risk Of Superficial Skin Damage Related To Adhesive Use

Superficial skin damage can occur when adhesive products are used. Skin stripping and tension blisters are the most common problems associated with taping. Many of these injuries may be prevented by correct use including careful attention to skin preparation, choice of tape, and proper application and removal of tape. Less common types of skin damage are irritant contact dermatitis, allergic contact dermatitis, folliculitis and maceration. A small percentage of individuals may experience hypopigmentation or hyperpigmentation of the skin following the removal of an adhesive product. Similar problems may occur with skin closure strips.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>To reduce the risk of injury</th>
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| Stripping                | A partial thickness injury occurring when adhesive bond between tape and skin is greater than the bond between epidermis and dermis. As tape is removed, the epidermis remains attached to the adhesive, resulting in epidermal damage or a painful area of exposed dermis. Degree of stripping varies with skin condition, adhesive characteristics, and frequency of taping. | • Use gentle, hypoallergenic tape  
• Match strength of adhesive to clinical needs and skin condition  
• Apply tape to clean, dry skin  
• For high risk patients, avoid using skin tackifiers under tape  
• Protect skin with 3M™ Cavilon™ No Sting Barrier Film allowing it to dry before taping  
• If repeated taping is anticipated, consider applying tape over a platform  
• Use proper removal technique |
| Mechanical Injury Due To Tension | The most common causes of tension injury are inappropriate strapping of tape during application and distention of skin under an unyielding tape. Strapping tape across skin is mistakenly thought to increase adhesion. As the tape backing resists stretch or regains its original shape, the epidermis begins to lift. This results in “tension blisters” typically seen at ends of the tape. Skin tears may occur before a blister even forms. Tension injuries may also occur when edema, hematoma formation, or distention distorts the skin surface or when a joint or other area of movement is covered with an unyielding tape. | • Apply tape without tension  
• Identify patients at high-risk: fragile skin, medical conditions (e.g., long-term corticosteroid use, malnutrition) or surgical procedures where edema or distention is expected (abdominal, orthopedic)  
• Protect skin with 3M™ Cavilon™ No Sting Barrier Film  
• If swelling or movement is expected, use a tape that stretches. Apply tape so direction of stretch corresponds with direction of swelling  
• If desired, compression may be obtained by carefully stretching tape over a dressing while securing the tape to the skin without tension.  
• If distention or edema is noted, loosen, reposition, or replace tape |
| Non-Allergic Contact Dermatitis | A non-allergic contact dermatitis may result when chemical irritants such as tackifiers or some skin preparations are trapped between adhesive and skin. The affected area will correlate to the area of exposure and may appear reddened, swollen, blistered, or weeping. | • Assure that skin is clean and dry before applying tape  
• Protect skin with 3M™ Cavilon™ No Sting Barrier Film allowing it to dry before applying tape  
• If possible, avoid using tackifiers |
| Allergic Contact Dermatitis | Allergic reactions are cell-mediated immunologic responses to a particular component of a tape adhesive or backing and occur infrequently. Patients may be mistakenly identified as having tape allergies when, in fact, they have experienced a non-allergic contact dermatitis. Clinical signs include well-defined areas of erythema and edema; vesicles may be present, as well as small erosions. | • Identifying type of tape causing sensitivity  
• Options may include identifying an alternative hypoallergenic tape or contacting tape manufacturer for assistance  
• Using 3M™ Cavilon™ No Sting Barrier Film may not prevent an allergic reaction |
| Folliculitis | Folliculitis is an inflammation of the hair follicle caused by shaving or entrapment of bacteria. | • Use a clipper or depilatory preparation if hair removal is necessary |
| Maceration | Maceration refers to skin changes seen when moisture is trapped against the skin for a prolonged period. The skin will turn white or gray, softens and wrinkles. Macerated skin is more permeable and prone to damage from friction and irritants. | • Keep taped skin clean and dry  
• Replace tape if soiled  
• Use breathable tape in moist areas  
• Avoid occlusive tapes unless clinically indicated |
## Two Common Taping Concerns

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<thead>
<tr>
<th>Tape doesn’t stick?</th>
<th>Skin Damage?</th>
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<tbody>
<tr>
<td><strong>The problem might be:</strong></td>
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<tr>
<td>Skin preparation</td>
<td>Skin irritated/denuded before tape applied</td>
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<tr>
<td>• Damp skin</td>
<td>• Vigorous alcohol prep</td>
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<tr>
<td>• Prep solution containing surfactant or glycerin was not allowed to dry</td>
<td>• Sensitivity to tackifier</td>
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<thead>
<tr>
<th>Application/removal technique</th>
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<tbody>
<tr>
<td>• Tape not gently and firmly stroked after applying</td>
<td>• Tape applied under tension</td>
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<tr>
<td>• Gaps left between tape and tubing/dressing</td>
<td>• Traumatic removal</td>
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<tr>
<td>• Loose tape edges</td>
<td>• Tape removed at an angle</td>
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<tr>
<td>• “Folded tab” left on tape</td>
<td>• Skin not supported during removal</td>
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<tr>
<td>• Tubing subjected to tension/pulling</td>
<td>• Too much tape</td>
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<td></td>
<td>• Area completely encircled with tape</td>
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<table>
<thead>
<tr>
<th>Choice of tape</th>
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<tr>
<td><strong>The problem might be:</strong></td>
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<tr>
<td>• Adhesive not strong enough for the particular application, for example:</td>
<td>• “Non-stretch” tape used on area that “expanded” (e.g., edema, hematoma formation, distention) or moved</td>
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<tr>
<td>– very active patient</td>
<td>• Adhesive more aggressive than needed</td>
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<td>– patient pulls at tubing/dressing</td>
<td>• Occlusive tape left on too long</td>
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<td>– heavy device or tubing</td>
<td>• Patient sensitive to specific adhesive</td>
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<td>– lacking tension loop</td>
<td>• Irritating tape or substance placed over perforated or porous tape</td>
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<tr>
<td>– “critical” application</td>
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