Managing a patient with a chronic, nonhealing wound can be one of the toughest challenges you face. It goes beyond knowing what type of wound the patient has. You also need to consider what caused the wound, why it won’t heal (including any patient comorbidities that are standing in the way), and what you can reasonably do to jump-start healing. No small task indeed.

Because selecting the right dressing for the job can be the most puzzling aspect of wound management for many nurses—remember, there are over a thousand topical products on the market today—in this article I’ll focus on the categories of products that are available and why you might use them. Future articles will tackle other aspects of the wound management equation.

The optimal situation
Choosing the right dressing for any type of chronic, nonhealing wound will depend on the cause of the wound, the condition of the wound bed, the amount of drainage, the presence of infection, and the depth of the wound. In general, the optimal dressings should:
- provide adequate tissue hydration to support cell viability without overhydrating the wound bed
- protect the wound bed from trauma and contamination
- promote the skin integrity of the surrounding tissue.

Knowing right from wrong
So how do you know which dressing is right for your patient? This article presents an overview of the categories of dressings that are available. A key point for you to remember is that not all dressings in a product category perform the same; in fact, indications and contraindications may vary from product to product in the category.

An indication for a specific wound type doesn’t mean that a product is right for every wound of that type, however. For example, a pressure ulcer that’s clean, shallow, and granulating with minimal drainage will have different dressing needs than a deep, undermined pressure ulcer with large areas of necrosis.

Advocates of a performance-based approach to selecting wound dressings—meaning that the dressing should be chosen for its suitability for a particular wound—suggest that several questions should be answered before any dressing is applied:
- What does the wound need?
- What does the product do?
- How well does it do it?
- What does the patient need?
- What’s available?
- What’s practical?

For more on this approach, see Answering Questions about Performance.

Getting down to business
The following information is intended as a broad description of general product cate-
gories. The product examples given are representative of the category; the list is not intended to be all-inclusive. Remember, you’re responsible for reviewing product inserts and for understanding how to safely apply any wound care product you’re using.

**Alginates**

Alginate dressings are nonwoven fibers derived from seaweed; some may have additives such as collagen. They’re used for autolytic debridement and to absorb up to 20 times’ their weight in exudate. Alginates can be used on infected wounds if the infection is being treated systemically and nonocclusive secondary dressings are used.

**Indications**

- Exudating wounds with slough
- Fill dead space and debride sloughing wounds

**Contraindications**

- Full-thickness burns
- Sensitivity to alginate, collagen, or other additives
- Heavily bleeding wounds
- Dry wounds

**Examples**

- Comfeel SeaSorb (Coloplast)
- Kalginate (DeRoyal)
- Kaltostat (Convatec)
- Maxorb (Medline)
- Sorbsan (Bertek)

**Collagen dressings**

Collagen dressings promote the deposition of newly formed tissue. They are used to promote the growth of new skin.

**Wound with slough**

A wound covered in slough may be a candidate for autolytic debridement with a dressing, like an alginate or a hydrocolloid.
formed collagen in the wound bed. These dressings come in pad, gel, and particle forms. They can be used in deep wounds to fill dead space, absorb exudate, and provide a moist environment. A secondary dressing is usually required.

**Indications**
- Tunneled or cavity wounds with drainage
- Partial- and full-thickness wounds
- Partial-thickness burns

**Contraindications**
- Wounds with dry eschar
- Sensitivity to additives

**Examples**
- FIBRACOL PLUS (Johnson & Johnson)
- Kollagen-Medifil (BioCore Medical Technologies)

**Composite dressings**
These combination dressings are designed to provide the multiple properties of two or more products in a single dressing. Most composite dressings have an adhesive border.

**Indications**
- Primary or secondary dressing
- Minimal, moderate, or heavy exudate, depending on the composition
- Partial- and full-thickness wounds

**Contraindications**
- If occlusive, contraindicated for untreated infected wounds
- Sensitivity to composite materials (polyurethane, alginates, or adhesives)
- Not intended for use over a cavity wound; dead space must be filled
- May be contraindicated for heavily...
draining wounds, full-thickness burns, and wounds with exposed tendon, muscle, or bone; review product inserts for more information

Examples
- Alldress (Mölnlycke Health Care)
- Covaderm Plus (DeRoyal)
- Stratasorb (Medline)
- TELFA Adhesive Dressing (Kendall Healthcare)
- 3M Tegaderm + Pad (3M Health Care)

Foams
Absorbent dressings made of polyurethane, foam dressing may be waterproof and bacteria-proof. Some foams are nonadherent and require a secondary dressing.

Indications
- Moderate to heavily exuding wounds
- Provide thermal insulation and moist wound environment
- Secondary dressing to provide additional absorption in deep wound; use with packing
- Can be used under compression dressings to absorb heavy drainage

Contraindications
- Dry wounds
- Partial-thickness wounds with minimal exudate
- Wounds with exposed muscle, tendon, or bone
- Arterial ischemic lesions

Examples
- Allevyn (Smith & Nephew)
- Cutinova Thin (Smith & Nephew)
- Flexzan (Bertek)
- Lyofoam (ConvaTec)
- Mepilex (Mölnlycke Health Care)
- PolyMem (Ferris Manufacturing Corp.)
- TIELLE and TIELLE PLUS (Johnson & Johnson)

Gauze dressings
Gauze dressings are commonly used, although they may not be the best choice. For more on gauze dressings, see Gauze: The Controversy Continues.

Dry gauze dressings

Indications
- Surgical wounds
- First 24 hours after sharp debridement to limit bleeding
- Absorb exudate and wick drainage
- Fill dead space
- Secondary dressing
- Protect dry gangrene area that can’t be debrided

Contraindications
- Wounds that require a moist environment
- Pain and bleeding of viable tissue

Wet-to-dry gauze dressings

Indications
- Absorb exudate and wick drainage
- Fill dead space
- Debride moist necrotic wounds

Contraindications
- Wounds that require a moist environment

Wound with maceration
The macerated periwound skin is the result of selecting a dressing that couldn’t absorb the wound’s heavy exudate.
Partial-thickness wounds
- Pain and bleeding of viable tissue

Wet-to-moist gauze dressings

Indications
- Infected wounds
- Absorb exudate and wick drainage
- Fill dead space
- Debride necrotic wounds

Contraindications
- Highly exuding wounds
- Severe maceration of surrounding tissue

Hydrocolloids
Adherent, occlusive dressings that are nonpermeable to water vapor and oxygen, hydrocolloids prevent outside contamination if they’re intact. The hypoxic environment created by occlusion is ideal for our bodies to trap wound fluid on the surface of the wound without drying out. Remember, cells get their oxygen from the local capillary beds, not from the outside atmosphere. This moist environment stimulates cells such as keratinocytes, fibroblasts, and macrophages to clean up the wound bed and release growth factors. These growth factors, in turn, stimulate new tissue production and development of new blood vessels to supply the repaired skin. Most hydrocolloid dressings are self-adhesive pads; a few come in paste form.

Indications
- Wounds with minimal to moderate exudate
- Wounds with slough or granulating wounds
- Partial-thickness wounds
- Protect intact skin

Contraindications
- Infected wounds
- Wounds with sinus tracts
- Deep cavity wounds

- Heavily exuding wounds
- Wounds with friable surrounding skin
- Full-thickness burns

Examples
- Comfeel Plus (Coloplast)
- DuoDERM (Convatec)
- Exuderm (Medline)
- Restore (Hollister)
- 3M Tegasorb (3M Health Care)

Hydrogels
These dressings, also called polymer gels, are primarily used to maintain a moist wound environment and can be used in wounds with minimal exudate. Amorphous gels and gel sheets cool wound surfaces; they’re soothing, comfortable, and help reduce pain. Some sheet forms have an occlusive backing and shouldn’t be used in infected wounds.

Indications
- Abrasions, minor burns, and other partial-thickness wounds
- Radiation injuries (must be approved by the radiation oncologist if treatment is ongoing)
- Maintain moist environment in healing wounds
- Donor sites
- Superficial and partial-thickness burns
- Hydration and autolytic debridement of nonviable tissue

Contraindications
- Moderate to heavily exuding wounds

Granulation tissue
A granulating wound should be protected from reinjury. Hydrocolloids or hydrogels may be a good choice.

Fast fact
Wounds dressed with gauze are at greater risk of infection than those covered with a moisture-retentive dressing.
Infected wounds, if the dressing is occlusive
Fungal wounds
Full-thickness burns
Over a cavity wound (sheet hydrogels); dead space must be filled
Examples: Amorphous hydrogel
• IntraSite Gel (Smith & Nephew)
• NU-GEL (Johnson & Johnson)
• Normigel (Mölnlycke Health Care)
• WOUN’DRES (Coloplast)
• 3M Tegagel (3M Health Care)
Examples: Sheet hydrogels
• Aquasorb (DeRoyal)
• Elasto-Gel (Southwest Technologies)
• Vigilon (Bard Medical)

Nonadhering dressings
Designed to provide a surface that won’t stick to the wound bed, these dressings are generally used as primary dressings. They require a secondary cover or wrap to secure them. Impregnated gauze dressings are impregnated with petrolatum or antibacterial or bactericidal compounds. Nonimpregnated gauze has a nylon or polyurethane covering that doesn’t adhere to the wound bed.

Indications
• Skin grafts and donor sites
• Abrasions and lacerations
• Reduce bacterial proliferation in superficial wound

Contraindications
• Heavily exudating wounds
• Sensitivity to antibacterial or bactericidal compound

Examples
• ADAPTIC (Johnson & Johnson)
• AQUAPHOR Gauze (Smith & Nephew)
• Scarlet Red Ointment Dressing (Kendall Healthcare)
• Vaseline Petrolatum Gauze (Kendall Healthcare)
• Xeroform Petrolatum Gauze (Kendall Healthcare)

**Odor-absorbent dressings**
These dressings have an encapsulated layer of activated charcoal that absorbs exudate and neutralizes odor. They can be used in combination with other dressings to absorb heavy exudate and to minimize wound odors.

**Indications**
• Neutralize odors in necrotic wounds
• Provide comfort and palliative care for terminally ill patients with draining wounds
• Infected or noninfected wounds with moderate drainage

**Contraindications**
• Dry, superficial wounds

**Examples**
• CarboFlex (ConvaTec)
• Lyofoam C (ConvaTec)
• Odor Absorbing Dressing (Hollister)

**Transparent adhesive films**
Also called MVP (moisture vapor permeable) dressings, transparent adhesive films maintain a moist wound environment by trapping moisture on the wound surface. They're impermeable to bacteria and contaminants.

**Indications**
• Superficial wounds
• Wounds with minimal exudate
• Protection of intact skin

**Contraindications**
• Moderate to heavily exuding wounds
• Friable (fragile) surrounding skin that can tear or bruise with little pressure or tension; even removing a thin transparent dressing can lift off the dermis and cause damage
• Wounds with sinus tracts
• Full-thickness wounds

**Examples**
• BIOCLUSIVE (Johnson & Johnson)
• OpSite (Smith & Nephew)
• Suresite (Medline)
• 3M Tegaderm (3M Health Care)

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**A nurse’s work is never done...**
So now you have a better idea of how to determine which dressing is right for your patient. But your job isn’t done. Once local wound care and other interventions have been initiated, you’ll need to regularly reassess your patient’s progress. Generally, if the wound isn’t showing signs of improvement in 2 weeks, the plan of care should be reassessed and changed as needed.

Continuing patient education and encouragement are essential, especially during a long healing process; patients can understandably become discouraged and depressed. If possible, involve the patient’s family and community support systems to relieve anxiety and help with the healing process.

Guiding your patient down the path to healing success may seem daunting, given all the variables that go into wound healing. But by understanding the types of dressings available and their indications and contraindications, you’re on your way to making a big problem more manageable.

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**Learn more about it**


