Wound care costs the U.S. healthcare system more than $20 billion each year, including more than $4 billion spent on wound management products. While prevention, early detection and rapid, effective intervention are the hallmarks of an effective wound care program, wound healing is a complex process that can be compromised by a number of factors. Successful treatment and management of wounds is a creative and dynamic process requiring the comprehensive teamwork of healthcare professionals working together to assess both the patient and the wound.

Since thorough and regular examination remains the most effective way to detect patient wounds, healthcare workers need to be proficient in recognizing the signs and symptoms of basic and atypical types of wounds. If staff members are unable to identify specific atypical wounds, they should at least identify what is abnormal so the wound care specialist can be alerted and treatment plans altered if necessary. All clinical staff members should be knowledgeable regarding pressure ulcers (including staging), arterial ulcers, venous insufficiency ulcers, diabetic neuropathic ulcers, and burns as well as ulcers related to shear, friction, and moisture.

It’s also important that wound examination be done on a consistent basis. For example, immobilized patients need to be turned regularly and examined completely to avoid missing a forming pressure ulcer. Stage 1 pressure ulcers may be difficult to identify because they are not readily visible and they present with greater variability, which means that without a proper assessment, a pressure ulcer might not be noticed until it is a Stage 2. The good news is that systematic efforts at education, heightened awareness and specific interventions by interdisciplinary healthcare teams have demonstrated that a high incidence of pressure ulcers can be reduced.
Even with proper care, however, some wounds will fail to heal in an appropriate fashion and may become chronic. With so much at stake, it is important that you and your staff take appropriate steps to encourage wound healing. There are five principles to consider when planning wound care:

1. **Is the wound healing?**
   - If the answer is yes, then proceed with best practice principles including providing an optimal moist wound environment. However, if the answer is that the wound is not healing, consider other factors that affect wound healing. Address issues of moisture, nutrition, mobility, pressure, friction and shear.

2. **Is the wound wet or dry?**
   - If the wound is wet or there is drainage, it must be contained. Applying an absorbent product or one that addresses the drainage should be a focus. If the wound bed is dry, a product that donates moisture to the wound bed may be necessary. Research has demonstrated that wounds heal better, faster, and with less scarring and pain in a moist environment.

3. **What is the condition of the periwound skin?**
   - If the skin around the wound is compromised, denuded or “raw,” the secondary or anchoring dressing choice will be affected. Consider products that are non-adherent and will not stick to fragile periwound skin. If the periwound skin is not compromised an adhesive dressing may be considered.

4. **Is the tissue necrotic or viable?**
   - If the wound bed is viable or living, measures should be taken to maintain the living tissue, such as maintaining a moist environment. If the wound bed is covered with necrotic tissue, slough or eschar, debridement is in order. Be sure to assess whether debridement is consistent with the overall goals for the patient.

5. **Dead Space: Does the wound have depth?**
   - If the wound has depth or dead space, loosely filling the wound cavity is necessary to allow closure by secondary intention, or “from the bottom up.” If the wound is superficial or “flat,” usually a cover dressing is acceptable.

The choices for treatment are based on a complete assessment of the patient, expected healing time and the amount of exudates in the wound bed. The following is adapted from *The Wound Care Handbook*, comprehensive guide available as part of Medline Industries Inc.'s Wound Care Compass program that details the basics of wound care and how various treatments are applied by practitioners in the field.

### Transparent Film

Transparent films can be used as a primary or a secondary dressing. As a primary dressing they are ideal for a dry to minimally draining wound. They are available with and without antimicrobial properties.

![Transparent film, used as primary or secondary dressing.](image)

### Hydrocolloid Dressing

A hydrocolloid is designed for use as a primary dressing, coming in direct contact with the wound bed. It is used for moist to moderately draining wounds. Other dressing choices should be considered if the dressing change frequency is greater than three times per week as the hydrocolloids are completely adhesive.

![Hydrocolloid, designed as primary dressing.](image)

### Hydrogel (Amorphous, Sheets and Impregnated Gauze)

A hydrogel gel is a primary dressing that is designed to provide a moist wound healing environment. In the amorphous form it can be used to fill a defect, either alone or in an impregnated gauze application. The sheet can be used for flat to shallow wounds that need to be kept hydrated while provided gentle or non-adhesive properties. Hydrogel dressings help with autolytic debridement and offer antimicrobial properties. They are available with and without antimicrobial properties.
Six Tips for Creating a Consistent Effective Wound Care Program

1. Hire skilled and experienced wound care specialists to provide expert care to patients with chronic or acute conditions. Wounds that don't heal properly can lead to additional serious health problems, so it's particularly important to have the right team of professionals involved in resident care with the right set of treatment products and practices.

2. Understand the full scope of the patient’s needs. Mobility, age, nutrition, continence, disease and other factors all have a part to play in how wounds heal, so it's important that facilities have the right mix of skilled staff in place to treat the complexity of a patient's needs and utilize high-quality products to help promote wound healing.

3. Keep abreast of quality of care requirements from local, state and federal agencies.

4. Emphasize continuing education for staff, residents and their families. The range of treatment options for wounds continues to evolve, and accordingly, so must the type of care provided.

5. Be willing to use a wide range of treatment options. Similar wounds tend to respond to similar treatment options but not always. That's because each patient—and their nutrition, overall health and goals differ. That's why it is important to continually assess the treatment option and intervene if the wound does not respond. In addition to products used to treat the wound itself, there are also seating, positioning and support surfaces that can help promote healing and redistribute pressure.

6. Take advantage of specialized training and inservices on products and treatment options provided by advanced wound care suppliers. For example, Medline developed a Wound Care Prevention & Treatment Compass program for its customers that is based on research and consultation with over 20 leading medical and clinical wound care specialists.

Alginate

Alginate is derived from seaweed and designed to absorb exudates in a wound. It subsequently becomes a gel and facilitates autolytic debridement while creating a moist wound healing environment. Depending on the wet strength of the product, the alginate can either gently fill a wound or be placed into undermining and tunneling. It can easily be irrigated out of the wound bed at each dressing change. This product also comes in an antimicrobial form.

Foam

These dressings are designed for use of a moderate to heavily exudating wound. Foam dressings typically wick the fluid up into the dressing. When used to manage large amounts of fluid, they can help with autolytic debridement while maintaining a moist wound healing environment. These dressings can also provide antimicrobial properties. They can be used...
Which ever dressing you choose, it should be selected based on a thorough assessment of the patient and the wound.

for wound care as well as around percutaneous sites that may have increased leaking, or secretions such as a tracheotomy, feeding tube, and a gastrostomy or jejunostomy tube. They are available with and without antimicrobial properties.

**Antimicrobial Dressings**

These dressings come in many sizes and shapes. Their use of design depends on their fluid-handling capabilities. They are available as powders, films, foams, alginites, sheets, gels and dressings to fill or cover a wound bed. After careful assessment of the patient and their wound it may be determined that an antimicrobial dressing is appropriate not only to manage the bacteria in a wound, but as a prophylactic dressing as well. The broad spectrum of antimicrobial properties make these dressing a good choice for chronic wounds, complex situations, patients with known drug resistance and those at risk for further complications. These dressings maintain a moist healing environment, help with autolytic debridement and reduce the surface bacteria in the wound bed.

**Secondary Dressings**

Secondary dressings are designed to cover the primary dressing. They should be chosen based on similar wear-times as the primary dressing. There are many additional characteristics to consider when choosing a dressing. These include transparency, absorption, bacterial barrier and waterproof properties. Other features may include the ability to secure the dressing without the use of adhesives.