Alginate dressings are one category of absorbent wound dressing that may be used on multiple wound types, including but not limited to diabetic wounds, venous wounds, pressure ulcers, cavity wounds, and some bleeding wounds. Able to be combined with other types of dressings to achieve different effects and available in several sizes, their unique properties allow them to be used in a variety of patients. What do you need to know about alginate dressings? Let’s take a closer look.

**Made from seaweed (yes, really!)**

Traditionally, alginates are made from acids that are obtained from brown seaweed. The calcium salts of alginic, mannuronic, and guluronic acids are processed into nonwoven, biodegradable fibers. When these fibers come into contact with fluid rich in sodium, the calcium ions undergo a transaction that results in the formation of a soluble sodium gel. This gel formation can also promote autolytic debridement of the wound. Alginates have the unique ability to absorb up to 20 times their weight in fluid, depending on the manufacturer. Depending on the type of seaweed species from which the alginate is made, the dressing may either gel or swell in the wound after absorption of wound fluid. Calcium alginates tend to swell, whereas sodium alginates tend to dissolve or gel in the wound bed.

Alginates are a multipurpose type of wound dressing. They easily conform to wound shape and come in flat pieces, called wafers or sheets, in multiple sizes. They’re also available in rope form, which is easy to cut to fit and manipulate (see Picturing an alginate dressing in rope form). Alginates should be used as a contact layer, meaning they come into contact with the wound bed itself, and they always require a secondary cover dressing to keep them in place.
Generally, alginates are used to drain wet wounds. They can also be used to provide hemostasis. Often, if a wound is bleeding, applying an alginate dressing to the affected area will stop the bleeding due to the ion exchange between the wound bed, the wound fluid, and the dressing. Some alginates contain a silver compound, which provides antimicrobial protection and may be considered for an infected wound. Alginates are generally not used for dry wounds because they’ll only desiccate the wound bed further. When the wound bed is too dry, the alginate fibers may actually deposit or adhere to the skin cells in the wound.

Options, options
Alginates may be used in combination with other dressing types, including hydrocolloid, foam, charcoal (for odor control), and silver dressings. Some of these combinations are premade and others can be easily combined in the clinical setting. They may also be layered in the wound bed for extra absorption.

When using an alginate dressing, always irrigate the wound with sterile saline solution after you’ve taken off the dressing to remove any fibers from the wound bed. Even if the alginate has turned into a gel, it’s very important to irrigate the wound. Some wound experts believe that because of these fibers, alginates shouldn’t be packed into wound tunnels. Other experts believe that wound tunnel packing with alginates isn’t contraindicated because the fibers can be removed from the wound. Adequate wound irrigation should be performed whether you’re using an alginate in a tunneled wound or on a flat wound bed.

The life of an alginate is variable depending on the manufacturer. In general, the life of an alginate dressing is 3 days, although some dressings can be left in place for as long as 7 days. If the wound is highly exudative, the life of the dressing will be shortened. And if an alginate is being used for an infected wound, it should be changed frequently.

Alginates aren’t recommended for use in some wound types because of the way they’re designed to work. Generally, alginates are contraindicated for dry wounds, wounds with only scant or light drainage, eschar-covered wounds, third-degree burns, or surgical wounds. If the alginate doesn’t undergo any change during the life of the dressing (such as gelling or swelling), another category of dressing should be considered. If a wound is infected, consider the use of a silver-impregnated alginate. Lastly, if heavy bleeding from the wound occurs, another method of hemostasis should be used instead of the alginate dressing.

Easy going
Alginates are an easy-to-use dressing choice for a variety of draining wounds. They’re easy to apply, easy to remove, and easy to manage. When used as indicated, they’re also cost effective. They can be combined with other dressings for creative wound healing and can be used on many types of wounds.

Learn more about it