

Community Outreach: Dressing Types- How They Work, Best Uses, Available Products

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Type of Dressing	What is it/How it works	Use	Products
Alginate Dressing	<p>Made from sodium and calcium salts</p> <p>Absorption limiting exudates and bacterial contamination via strong hydrophilic gel formation</p> <p>Activates macrophages to produce TNF-alpha initiating inflammation signals</p>	<p>Moderate to heavy drainage wounds</p> <p>Donor sites, surgical incisions, superficial burn wounds, lacerations and abrasions, pressure ulcers (I-IV), dehisced abdominal wounds, post-surgical wound debridement</p> <p>AVOID in dry wound, 3rd degree burn, wounds with exposed bone</p>	<p>Sorbsan Kaltostat Algisite Hyalogran SeaSorb Algoderm Melgisorb</p>
Hydrocolloid Dressing	<p>Two layers: inner colloidal, and outer water-impermeable layer</p> <p>Made up of carboxymethyl-cellulose, gelatin, pectin with adhesives, elastomers</p> <p>Impermeable to bacteria and have debridement properties, absorbing wound exudates</p>	<p>Light to moderately exudating wounds- pressure sores, minor burns, traumatic wounds (minor abrasion/ laceration), chronic ulcers (I-IV), sloughing wound</p> <p>Good for pediatrics- does not cause pain on removal</p> <p>AVOID in neuropathic ulcers, and highly exudating wounds</p> <p>Primarily used as a secondary dressing</p>	<p>Granuflex Comfeel Tegasorb Aquacel Combiderm Hydrocoll</p>
Hydrogels Dressing	<p>Insoluble, swellable hydrophilic materials from synthetic polymers (poly and polyvinyl pyrrolidone)</p> <p>~90% water content aids in granulation tissues and epithelium, limited absorbency</p> <p>Reduces temperature of cutaneous wounds providing soothing effect</p>	<p>Dry chronic wounds, necrotic wounds, pressure ulcers, minor burn wounds, light exudate wounds- lacerations, sloughing wounds, pressure injuries, sinuses, cavity wounds</p> <p>AVOID in infected and heavy drainage wounds</p> <p>Downside: exudate accumulation can lead to bacterial proliferations and foul smell, tears easily</p>	<p>Intrasite Nu-gel Aquaform Amerigel AquaSite AquaClear</p>
Semi-permeable Film Dressing	<p>Transparent and adherent polyurethane</p> <p>Allows transmission of water vapor, CO₂, O₂ from wound</p>	<p>Epithelializing wounds, superficial wound/shallow wound with low exudates- scalds, minor lacerations, suture lines, IV catheter sites, preventative for pressure ulcer development, clean abrasions</p> <p>AVOID in deep or cavity wounds</p>	<p>Opsite Tegaderm Bioocclusive</p>

	Provides autolytic debridement of eschar and impermeable to bacteria		
Semi-permeable Foam Dressings	<p>Porous polyurethane foam or polyurethane foam film. Hydrophilic wound side and hydrophobic outside</p> <p>Maintain moist environment, provide thermal insulation</p> <p>Highly absorbent, controlled by foam texture, thickness, pore size</p>	<p>Granulating wounds, partial/full thickness wounds with moderate drainage, heavily exudating wounds, lower leg ulcers, donor sites, venous ulcers (with compression), pre-tibial lacerations</p> <p>AVOID in dry epithelializing wounds, dry scars, cavity wounds, low exudating wounds</p> <p>Secondary dressings usually not needed due to high absorbency and vapor permeability</p>	<p>Lyof foam Allevyn Tielle Optifoam Curafoam</p>
Silver Dressing	<p>Silver atoms lose an electron, becoming Ag⁺ readily when exposed to aqueous wound exudate</p> <p>Ag⁺ is highly reactive, ultimately causing bacterial cell death by binding to bacterial cell membranes, causing disruption of cell wall and cell leakage</p>	<p>Acute or chronic wounds that are infected or that are not healing due to microorganisms, acute/chronic wounds at high risk of infection/re-infection</p> <p>AVOID in absence of signs of localized spreading or systemic infection, clean surgical wounds at low risk for infection, small acute wounds at low risk for infection, chronic wounds healing as expected</p>	<p>Mepilex Ag Biatain Ag Polymem Silver Urgocell Silver</p>

Dressing Choice Based on Wound Presentation

Color	Exudate	Dressing Choice/Aims of Dressing
Pink	None	*Foams, thin hydrocolloids, film dressings, modern tulle *Keep moist environment, protect, and insulate
Red (unbroken)	Low	*Thin hydrocolloids, film dressings *Prevent skin breakdown
Red	Low	*Foams, hydrocolloids, hydrogels, film dressings *Maintain moist environment, granulation, epithelialization
Red	High	*Foams, alginates, hydro active dressings, hydrocolloids for deeper areas *Keep moist environment, promote granulation and epithelialization
Yellow	Low	*Hydrogels (rehydrate slough), hydrocolloids (autolysis) *Remove slough, absorb exudate, keep moist environment
Yellow	High	*Alginates (remove slough, absorb exudate), hydrocolloids for deeper *Remove slough, absorb exudate

Black	Low	*Amorphous hydrogel, hydrocolloid sheet *Debridement first, enhance autolytic debridement of eschar
Green	High	*Silver, interactive wet dressings, capillary wicking dressings *Absorb infected exudate

Table recreated from Table 1 in <https://onlinelibrary.wiley.com/doi/pdf/10.1002/j.2055-2335.2006.tb00640.x>

Sources

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