

Comparison of Debridement Methods

Most commonly Used in Long Term Care

Topic	Autolytic	Enzymatic	Mechanical	Conservative Sharp
Definition	Digestion of necrotic tissue by the body's white blood cells (leukocytes) and enzymes.	Use of exogenous enzymes to digest denatured collagen fibers attaching necrotic tissue to wound bed.	Use of a physical force to remove necrotic tissue and foreign matter from the wound.	Removal of necrotic tissue by use of a sharp instrument.
Indications	<ul style="list-style-type: none"> • Wound base with minimal to moderate amount of necrotic tissue. 	<ul style="list-style-type: none"> • Resident is poor surgical candidate. 	<ul style="list-style-type: none"> • Heavily necrotic wounds • Infected heavily necrotic wounds 	<ul style="list-style-type: none"> • Necrotic tissue in infected or non-infected wounds • Epibolized edges
Contraindications	<ul style="list-style-type: none"> • Resident with poor perfusion and intact stable eschar • Infection or cellulitis unless appropriate antibiotic used • Third-degree burns • Resident at risk for severe infection or sepsis • Presence of treated or untreated anaerobic wound infection • Neutrophil count less than 500mm 	<ul style="list-style-type: none"> • Sensitivity to Collagenase. Presence of untreated infection or critical colonization. 	<ul style="list-style-type: none"> • Presence of significant amount of granulation tissue • Residents with poor perfusion and intact stable eschar • Painful 	<ul style="list-style-type: none"> • When bleeding cannot be controlled • When pain cannot be controlled • Dry Stable Heel Eschars • Stable Ischemic Wounds

Selective versus Non-Selective	Selective	Selective	Non-Selective	Non-Selective
Method of Action	<ul style="list-style-type: none"> • Release of proteolytic, fibrinolytic and collangenolytic enzymes within a moist and vascular environment to remove devitalized tissue 	<ul style="list-style-type: none"> • Enzyme liquefies the devitalized collagen strands that anchor necrotic tissue to wound bed • <i>Enzyme is hydrophilic – seeks moisture</i> • Enzymes can be used adjunctively with autolytic, mechanical and sharp debridement • Package insert should be followed 	<ul style="list-style-type: none"> • As wet to dry dressing dries, necrotic tissue attached to the dressing is pulled from the wound bed • Irrigation: high pressure stream of fluid directed at wound bed detaches necrotic tissue/debris 	<ul style="list-style-type: none"> • Specially trained and licensed healthcare providers who use blade, curette, scissors to remove devitalized tissue from wound base or remove epibolized (rolled) wound edge
Continue Until	Goal of therapy met	Debridement complete and granulation tissue established	Granulation tissue is present	Devitalized tissue removed Rolled edge removed
Special Considerations	<ul style="list-style-type: none"> • Most selective form of debridement • Wound measurements and drainage may increase during debridement 	<ul style="list-style-type: none"> • Cover dressing same frequency of change • Eschar should be cross hatched or softened prior to start of enzyme therapy • Wound measurements and drainage may increase during debridement 	<ul style="list-style-type: none"> • Pre-medicate for pain • Labor intensive D/T frequency of changes needed • Splash protection may be needed 	<ul style="list-style-type: none"> • Pre-medicate for pain • Labor intensive D/T frequency of changes needed • Splash protection may be needed. • Quickest form of debridement • Wound measurement may increase • Pre-medicate for pain

				Control bleeding • Obtain consents
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