Dressing Selection Guide

IIWCG Wound Care | 2026 update

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★ = new or changed in 2026

Wound Dressing Formulary

Product category	Description	Usage considerations
★ Wound cleansing solutions	• Potable water or normal saline for clean, healing wounds • Antiseptic cleansing solutions: surfactant with PHMB, octenidine, hypochlorous acid (super-oxidised), povidone-iodine	• Cleanse the wound bed, edges and periwound skin at every dressing change (wound hygiene) • Use an antiseptic solution for therapeutic cleansing when biofilm or local infection is suspected; allow the contact (soak) time stated by the manufacturer • Use the lowest effective concentration; avoid cytotoxic agents such as hydrogen peroxide
★ Antimicrobial	**Classifications:** – Iodine (povidone and cadexomer) – Silver (ionic or metallic) – Polyhexamethylene biguanide (PHMB) – Medical-grade honey – DACC hydrophobic (binds microbes, releases no active agent) – Gentian violet / methylene blue **Forms: alginate, foam, gauze, gel, gelling fibre, contact layer, paste**	• Indicated for local infection or suspected biofilm; with systemic antibiotics for spreading or systemic infection ★ Avoid routine prophylactic use; reserve for wounds at high risk of infection (antimicrobial stewardship) • Must be in direct contact with the wound bed • Review after 2 weeks: stop if infection has resolved, change approach if no improvement • Iodine: contraindicated with radio-iodine, in pregnancy, breastfeeding, renal disorders and infants under 6 months; caution in thyroid disease and large wounds ★ Cadexomer iodine: max 50 g per application, 150 g per week, course up to 3 months ★ Gentian violet / methylene blue: little or no dye released, but safety in pregnancy and breastfeeding not established (Health Canada 2019) ★ Diabetic foot ulcers: do not use antimicrobial dressings or honey to promote healing (IWGDF 2023) • Avoid topical antibiotics that are also used systemically
Calcium alginate	• Sheets or ropes of calcium sodium alginate (seaweed derivative) • Haemostatic; some options contain silver	**Indicated for: moderate to heavy exudate, minor bleeding, autolytic debridement, filling dead space** **Contraindicated: dry wounds, narrow or deep sinuses, heavy or uncontrolled bleeding** • Requires a secondary dressing ★ Diabetic foot ulcers: not recommended to promote healing (IWGDF 2023)
Charcoal	• Activated charcoal within a sleeve; some contain silver	• Indicated for odorous wounds; not for heavy exudate • Masks odour but does not treat the cause: investigate and treat • Seal dressing edges to control odour
Acrylic	• Acrylic polymer pad with breathable, waterproof film	**Indicated for: low exudate, autolytic debridement, protecting intact or newly epithelialised skin** **Contraindicated: moderate to heavy exudate, infected wounds** • Wound visible through dressing; wear time up to 14–21 days • Do not cut the pad; avoid on venous leg ulcers
Films / membranes	• Transparent, semi-permeable polyurethane sheets; MVTR varies • Impermeable to liquid and bacteria	**Indicated for: superficial and partial-thickness wounds, donor sites, cover for showering, friction protection, secondary or fixation dressing** **Contraindicated: moderate to heavy exudate, infected wounds, deep cavities, full-thickness burns**
★ Foams	• Polyurethane foam, with or without adhesive border • Options: antimicrobial, low tack, silicone contact layer, pain control	• Indicated for low to moderate exudate and autolytic debridement • Caution in diabetes: foams do not reduce plantar pressure **Contraindicated: heavy exudate needing daily changes, ischaemic non-healable wounds** ★ Multilayer soft silicone foam is also used to prevent pressure injury on sacrum and heels (International Guideline, conditional)
★ Gelling fibre	• Carboxymethylcellulose or similar fibres that gel on contact with exudate • Sheets and ribbons; silver options	• Indicated for moderate to heavy exudate and cavities (ribbon, leave a tail for removal) • Removes in one piece; requires a secondary dressing • Not for dry wounds
★ Hydrocolloid	• Occlusive wafers of gel-forming agents on film or foam; also paste	• Indicated for low to moderate exudate and autolytic debridement; paste for difficult areas **Contraindicated: infected wounds, heavy exudate, fragile skin** • Residue and odour on removal can mimic infection
Hydrogel	• High-water-content polymers: gel, sheet or impregnated gauze	• Indicated for minimal or no exudate, to add moisture or support autolytic debridement **Contraindicated: moderate to heavy exudate, infected wounds, arterial lower-limb ulcers** • Apply about 5 mm thick; do not mix with iodine paste; protect periwound skin
Hypertonic	• Sodium chloride impregnated gauze ribbon or wafer	• Indicated for necrotic or heavily exuding wounds **Contraindicated: granulation tissue, exposed tendon, low exudate** • Requires a secondary dressing; may be painful
★ Negative pressure (NPWT)	• Foam or gauze, pump, canister and tubing • Single-use portable systems for closed incisions	• Skilled patient selection. Do not use with non-enteric unexplored fistula, necrosis with eschar, untreated osteomyelitis or malignancy; not over exposed vessels or organs ★ Pressure injury Stage 3–4: suggested (International Guideline, conditional) ★ Diabetic foot: post-surgical wounds yes; non-surgical ulcers no (IWGDF 2023) ★ Closed incisions: fewer surgical site infections (RR 0.66, Cochrane 2022) • Caution with anticoagulation; confirm perfusion before heel or foot use
Non-adherent contact layer	• Porous silicone or tulle sheets with low adherence	• Indicated for painful wounds, friable granulation, preventing adherence of secondary dressings, delivering topical agents
Pain-control	• Foam with continuous ibuprofen release; low-tack foam	• Indicated for painful exuding wounds • Not with hypersensitivity to components; do not exceed recommended dose
★ Superabsorbent	• Polymer core that locks in large volumes of exudate	• Indicated for heavy exudate; reduces change frequency and maceration • Do not cut unless the manufacturer permits
★ Sucrose octasulfate (TLC-NOSF)	• Lipido-colloid contact layer or foam with sucrose octasulfate	• Non-infected neuro-ischaemic diabetic foot ulcer not improving after at least 2 weeks of best care including offloading (IWGDF 2023, conditional, moderate certainty)

Introduction

★ Necrotic



Black or dark grey devitalised tissue; dry eschar is tough and leathery (Gray et al., 2005). Keep stable dry eschar dry on ischaemic limbs and heels; seek vascular review before debriding.

Slough



Adherent fibrous material of proteins, fibrin and fibrinogen (Tong, 1999); creamy yellow, dry and adherent or loose and stringy when moist.

Granulating



Pink to red, moist, fragile tissue filling the wound in the proliferative phase; capillary buds give its granular look.

Epithelialising



New epithelium covering the wound surface, usually from the edges.

★ Local infection and biofilm



Covert signs: hypergranulation, friable bleeding tissue, epithelial bridging, breakdown, delayed healing, new pain or odour. Overt: redness, warmth, swelling, pus. "Critical colonisation" is no longer used (IWII).

★ IWII wound infection continuum

Contamination → Colonisation → Local infection → Spreading → Systemic

Local infection may be covert (subtle) or overt (classic). Biofilm-based care: cleanse, debride, antiseptic.

★ Before choosing a dressing

1 **Treat the cause:** check perfusion; compression for venous ulcers, offloading for diabetic foot ulcers, pressure redistribution for pressure injuries.

2 **Patient concerns:** pain, odour, preferences, cost and ability to self-care.

3 **Wound hygiene:** cleanse, debride (healable wound with adequate blood supply), refashion the edges, then dress.

4 **Reassess:** a healable wound should be 20–40% smaller by week 4.

Definitions

★ **Healable wound:** causes corrected, adequate blood supply; goal is closure.
★ **Maintenance wound:** (formerly non-healing) can heal, but patient or system factors currently prevent it.
Non-healable wound: causes cannot be corrected, e.g. end of life; goals are comfort and preventing deterioration.
★ **Biofilm:** microbial communities in a protective matrix that delay healing and resist antimicrobials.
★ **Wound hygiene:** cleanse, debride, refashion edges, dress: at every dressing change.
Primary / secondary dressing: contacts the wound bed / covers the primary dressing.
Contact layer: thin single layer protecting fragile tissue in the wound base.
Occlusive / semi-occlusive: seals out air and moisture / allows some exchange.
MVTR: moisture vapour transmission rate through the dressing.

Dressing Selection Guide by Wound Condition

Clinical situation	Presentation	Local wound care	Care considerations	Generic products
Tissue type	• Granulation • Fibrin • Slough • Eschar	• Optimise wound bed • Protect granulation • Remove non-viable tissue	• Select by tissue type • Autolytic dressings for slough and necrosis ★ Add sharp, mechanical or enzymatic debridement as needed ★ Keep stable dry eschar on poorly perfused limbs or heels dry	• Hydrogel • Acrylic • Calcium alginate • Film • Foam • Gauze (daily changes only) • Gelling fibre • Hydrocolloid • Contact layer
★ Infection and biofilm	• Covert local • Overt local • Spreading • Systemic	• Reduce bioburden • Disrupt biofilm	• Treat the cause ★ Therapeutic cleansing and debridement first • Topical antimicrobial primary dressing ★ Review at 2 weeks • Spreading or systemic: systemic antibiotics too	★ Antiseptic cleansing solutions • Honey • Iodine • PHMB • Silver ★ DACC • Hypertonic
Exudate	• None (dry) • Light • Moderate • Heavy	• Moisture balance: add or remove moisture	• Dry wounds need moisture (if healable) • Exuding wounds need absorption • Protect periwound skin from maceration and dermatitis	• Film • Hydrogel • Acrylic • Alginate • Gelling fibre • Foam ★ Superabsorbent
Painful wounds	• At dressing change • Between changes	• Provide pain control	• Choose by type of pain ★ Assess pain at every change; soak adherent dressings; use silicone adhesives on fragile skin	• Ibuprofen foam • Hydrogel • Contact layer
Odour	• Odorous wounds	• Minimise odour • Treat infection • Absorb exudate	• Find the cause; odour may mean infection ★ Cleanse and debride to remove the source	• Charcoal • Antimicrobials • Iodine • PHMB
Deep wounds	• Cavity • Undermining • Sinus tracts • Fistula	• Fill dead space	• Fill loosely, do not pack tightly • Avoid products that break up in deep wounds • Excess packing can cause necrosis	• Calcium alginate (not for tunnels) • Cavity foam • Gauze • Gelling fibre ribbon • Hypertonic ribbon ★ NPWT
★ Stalled wounds	• Indolent • Dormant	• Re-initiate healing	• Reassess cause and healability • Less than 20–40% smaller by week 4: re-evaluate • Biopsy to exclude atypical or malignant wounds • Refer to a specialist	• NPWT • Electrical stimulation (pressure injury) • Diabetic foot: sucrose octasulfate dressing, leucocyte-platelet-fibrin patch, placental products, topical or hyperbaric oxygen

★ What changed since 2020

- "Critical colonisation" replaced by the IWII continuum; biofilm and wound hygiene added
- Antimicrobial stewardship: no routine prophylactic antimicrobials; review at 2 weeks
- Cleansing solutions, gelling fibre, hydrocolloid, superabsorbent and sucrose octasulfate rows added
- Diabetic foot (IWGDF 2023), pressure injury (International Guideline 2025–2026) and NPWT evidence added
- Healable, maintenance and non-healable wounds (Wound Bed Preparation 2021); stalled-wound actions replace "expert opinion"

Resources

1. Sibbald RG, Elliott JA, Persaud-Jaimangal R, et al. Wound bed preparation 2021. Adv Skin Wound Care. 2021;34(4):183-95.
2. Swanson T, Ousey K, Haesler E, et al. IWII Wound Infection in Clinical Practice consensus document: 2022 update. J Wound Care. 2022;31(Sup12):S10-21.
3. Murphy C, Atkin L, Vega de Ceniga M, et al. Embedding wound hygiene into a proactive wound healing strategy. J Wound Care. 2022;31(Sup4a).
4. NPIAP, EPUAP, PPPIA. Prevention and Treatment of Pressure Ulcers/Injuries: The International Guideline, Fourth Edition. 2025–2026. internationalguideline.com
5. Chen P, Vilorio NC, Dhatariya K, et al. Guidelines on interventions to enhance healing of foot ulcers in people with diabetes (IWGDF 2023 update). Diabetes Metab Res Rev. 2024;40(3):e3644.
6. Norman G, Shi C, Goh EL, et al. Negative pressure wound therapy for surgical wounds healing by primary closure. Cochrane Database Syst Rev. 2022;4:CD009261.
7. Health Canada. Summary safety review: gentian violet-containing human health products. 2019.
8. LeBlanc K, Campbell K, Beeckman D, et al. Best practice recommendations for the prevention and management of skin tears in aged skin. Wounds International; 2018.

Generic product categories only: follow your local formulary and the manufacturer's instructions. This guide supports, and does not replace, clinical judgement.