

Collagen Wound Care Dressings

As clinicians, you should be aware of the types of dressings available to treat patients in your care.

Wound care dressings come in various shapes, sizes and have indications for their use, including collagen wound dressings

What is a Collagen Wound Dressing?

Collagen can be found in different types of connective tissues, such as cartilage, bone, ligaments, and skin.

Collagen wound dressings can stimulate the growth of new tissue in the wound bed by promoting deposition and organization of new collagen fibers. It also can provide a natural scaffold for new tissue development.

The dressing also can act as a sacrificial substrate in the case of excessive levels of matrix metalloproteinases (MMPs) to protect the new extracellular matrix.

Types of Collagen Dressings

Collagen wound dressings can be found in many different forms, such as:

Sheets

Gels

Pads

Particles

Pastes

Powders

Solutions

They are typically manufactured from bovine (cow), porcine (pig), ovine (sheep) or avian (bird) sources and are purified to prevent reaction.

Indications for collagen wound dressings include:

Wounds that have stalled in the healing phase

Partial- or full-thickness wounds

Skin graft and donor sites

Wounds with minimal to heavy exudate

Infected wounds, provided the infection is managed locally or systemically

The contraindications are wounds with necrosis, third-degree burns and sensitivity to bovine, porcine, ovine, or avian products.

Pros of Collagen Dressings

Collagen wound dressings can be advantageous because they:

Absorb fluids (exudate)

Help maintain a moist wound environment

Can be used with topical agents

Accelerate the repair of wounds

Conform to any shape of wound

Non-adherent — will not stick to newly granulated tissue

Easy to apply and remove

Dressing can be left in place for up to 7 days

Cons of Collagen Dressings

The disadvantages with this type of wound dressing include:

Requires a secondary dressing

Can be expensive

Unusual odor might be unpleasant for patients

Application might be difficult

Reminders for clinicians

Collagen wound dressings should be pre-moistened with normal saline if used on dry wounds.

Always follow manufacturer's directions for use.

Monitor the expiration date of collagen dressings.

Ensure proper storage of collagen products.

Collagen powder can be used for chronic wounds because collagen is especially effective in areas with compromised blood supply. Collagen is the body's most abundant protein and plays a vital role in all phases of wound healing. It can be applied directly to wounds or mixed with other dressings to help with regeneration. Collagen can help with:

Stimulating new tissue growth: Collagen wound dressings can help restart the wound healing process when it's stalled in the inflammatory stage.

Reducing inflammation: Collagen-based dressings can help break down persistent inflammatory responses and restore physiological conditions for healing.

Supporting new blood vessel formation: Collagen helps wounds re-epithelize and form granulation tissue.

Collagen is necessary to complete the final two stages of the wound healing and closure. When a wound is stalled in the inflammatory stage, collagen wound dressings may help stimulate new tissue growth and keep your body moving through the natural wound-healing process.

Collagen wound healing may also be practiced with a liquid collagen supplement. When ingesting a high-quality, easily absorbable collagen supplement, you provide your body with the necessary amino acids to build collagen on its own.

The presence of additional collagen synthesis may then stimulate cell repair, and encourage a more effective wound healing process.

1. Diabetic and venous ulcers

Both diabetic wounds and venous ulcers are common chronic wounds that get stuck in the inflammatory stage. Patients may struggle with getting the appropriate amino acids from proteins in their diet, which means additional collagen is needed for their wound healing.

Venous ulcers and diabetic ulcers may require long-term healing and, because of that, collagen wound healing has been studied as an effective treatment.

Collagen dressings are used in direct contact with the wound, and contain live tissues.

2. Burn wounds

Burn wounds vary in severity and can sometimes take a long time to heal due to the extensive damage to tissue layers. While minor burns will heal within a couple of weeks, serious burns may involve medication, therapy, wound dressings, and in severe cases, surgery.

In all burn treatments, the goal is to help alleviate some of the patient's pain, prevent infection, reduce scarring, and remove dead tissue - all while helping the wound heal.

Biological dressings, like collagen dressings, are known to be impermeable to bacteria. And, collagen dressings may have more advantages for burns than conventional dressings. Since they are natural, they are non-pyrogenic, hypoallergenic, non-immunogenic, and pain-free.

Do collagen dressings or liquid collagen supplements work better for wound healing?

The use of collagen dressings for wound healing may be used for chronic wounds or in severe cases to help patients heal faster. But can you use a liquid collagen supplement to help aid in wound healing too?

The short answer: Yes, absolutely!

Collagen wound healing is not isolated to wound dressings, and in fact, medical grade collagen supplements are used as a form of medical nutrition therapy to help patients with treatments.

Liquid collagen supplements can be prescribed to the patient when going through medical nutrition therapy (MNT), and for similar reasons that a collagen wound dressing works. A highly absorbable collagen supplement provides necessary amino acids to help your body produce collagen naturally. Using nutrition as a treatment for any type of medical condition may or may not be covered by the patients insurance.

Use collagen for wound healing when...

Indications for collagen wound dressings include:

Wounds that have stalled in the healing phase.

Partial- or full-thickness wounds.

Skin graft and donor sites.

Wounds with minimal to heavy exudate.

Infected wounds provided the infection is managed locally or systemically.

In which phase of wound healing is collagen most involved?

The proliferative or granulation phase does not occur at a discrete time but is ongoing all the time in the background. By days 5 through 7, the fibroblasts have started to lay down new collagen and glycosaminoglycans. These proteoglycans form the core of the wound and help stabilize the wound.

Can you put collagen powder on an open wound?

ACTIVATED BY MOISTURE: Once applied to the wound, Collagen powder is activated by moisture and absorbed by the wound which strengthens and accelerates the healing process.

What is the role of collagen in chronic wounds?

The role of collagen in wound healing is to attract fibroblasts and encourage deposition of new collagen to the wound bed. Collagen dressing technology helps stimulates new tissue growth, while encouraging autolytic debridement, angiogenesis, and reepithelialization.

Collagen Dressings

The collagen dressings are porous collagen membranes which are designed to be permeable and breathable, with fluid control like skin. They are flexible, pliable, elastic, and durable for ease of application.

Indications: Surgical wounds, dehisced surgical wounds and traumatic wounds, diabetic ulcers, pressure ulcers, and venous stasis ulcers.

Collagen Powder

The particles have a high surface area, allowing them to effectively penetrate and deliver the maximum amount of collagen into the wound surface.

Indications: Surgical wounds, dehisced surgical wounds, and traumatic wounds diabetic ulcers, pressure ulcers, and venous stasis ulcers.

Silicone Composite Dressing

The Silicone composite dressings are absorbent, have a non-traumatic border, and provide an ideal cover for wounds of many types. These dressings are indicated as a secondary dressing to cover primary dressings. They assist in protecting the wound and preventing bacterial contamination or maceration. These dressings are waterproof.

Indications: Post surgery sites, post operative wounds, diabetic ulcers, pressure ulcers, venous ulcers, and lacerations.

Island Composite Dressing

These dressings contain a non-adherent contact layer that covers the wound site. It consists of a soft absorbent pad that collects exudate and protects the wound from trauma. It also has a non-woven backing with an adhesive border that is gentle and holds the pad in place. The island composite dressing also has a waterproof backing to keep wounds dry and keep external contaminants out.

Indications: Post surgery sites, post operative wounds, diabetic ulcers, pressure ulcers, venous ulcers, and lacerations.



Establish medical necessity during initial patient wound assessments.

Thorough, real-time data and documentation

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Accurate CWS wound diagnosis & treatment

Issue SWO (IVR) for up to one month's supply of daily HealPACK for the patient.

CUSTOMIZED

The specified supply of HealPACK is shipped to the patient's permanent residence.