

# Wound Tunneling

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**T**unneling wounds have channels that extend from a wound into and through subcutaneous tissue or muscle. They often are difficult to manage and may persist for long periods of time.

Tunnels occur for a variety of reasons. Commonly, they are associated with infection that has resulted in destruction of the tissues. Pressure ulcers can have tunnels because shear and pressure forces frequently are concentrated at the tissue layer interfaces, resulting in tunnel creation. In stalled wounds, tunneling occurs because of the extended inflammatory phase. Tunneling also is associated with use of wound dressings that dehydrate wounds. Too much or too little packing also can lead to tunnel formation.

When initiating treatment of a tunneling wound, it is important to cleanse the wound to reduce the microbial load that can play a role in tunnel creation and maintenance. The tunnel should be packed appropriately to enhance healing and reduce the risk for possible abscess development at the site. The packing should be placed to avoid creating pressure on the sides of the tunnel to reduce the risk of damaging healthy tissue. It is particularly important to measure and closely monitor the tunneling area at least weekly so dressing selection can be modified quickly if healing progress is not appropriate.

Patients frequently have tunneling wounds that have not progressed even though they have been managed for many months with alginates, hydrogels, or iodine-based dressings. When presented with challenging wounds, I consult my colleagues, published literature, conference presentations, and peer-reviewed case studies. I apply what I learn to my patient — often, what has worked for one patient will work for another similar patient.

Increased expertise gained through better management of tunneling wounds will transfer to overall wound management, improving time to healing and quality of care. ■

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## Commentary from Ferris Mfg. Corp.

Tunneling wounds are difficult to close and often are unsuccessfully managed with alginates, hydrogels, and iodine type dressings. In response to clinician requests to help improve the management options for these wounds, Ferris Mfg. Corp. created PolyMem Wic Silver Rope®. This 10-mm wide dressing is a reinforced PolyMem Silver Wic wound filler dressing. The reinforcement ensures the dressing is removed intact from tunnels. For narrower tunnels, the dressings can be cut in half length-wise. The rope is designed for easy insertion using a standard facility-provided sterile applicator. The dressings do not stick to the wound so they are easy to insert and remove.



January 22: PolyMem Wic Silver Rope placed into 5-month-old nonhealing 5 cm- and 3.5 cm-deep tunnels.

In a representative case study,<sup>1</sup> an 89-year-old patient presented with 5-month old nonhealing 5 cm- and 3.5 cm-long tunneling wounds radiating from a single wound. The rope dressings were inserted into the tunnels and covered with a Shapes by PolyMem Silver® dressing. Dressing changes were easy and atraumatic because the dressings are nonadherent and do not break apart during removal. In the first week, the length of each tunnel decreased by 1 cm. The wound was completely closed in 10 weeks.



April 1: Wound that defied conventional treatment closed in 10 weeks.

## References

1. Wilson D. New silver polymeric membrane rope dressing solves difficult tunneling wound problem. Poster presented at the Clinical Symposium on Advances in Skin and Wound Care. Las Vegas, NV. October 2008.