Augmented Subatmospheric Wound Dressing Use About the Foot and Ankle
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Subatmospheric wound dressings (SAWD) have become widespread as a method of both temporizing and definitively treating wounds. These dressings exert their effects by creating a pressure gradient between the wound and the surrounding environment. This pressure gradient helps to draw the wound edges together, accelerates accumulation of granulation tissue, removes excess tissue fluid and reduces the bacterial load within the wound. All of these effects promote faster wound healing. Despite these advantages SAWD use around the foot and ankle can be challenging. Wounds about the foot and ankle often have a large surface to depth ratio, adjacent integument at risk and multiple layers of bacterial colonization. Simple modifications to standard SAWD application help to overcome these challenges. Sewing sponges to the wound periphery aids in application to shallow wounds with irregular borders while simultaneously decreasing overlap of the sponge on tissue at risk. Application of liquid adhesive to the surrounding tissues increases adherence of the occlusive membrane. This decreases the amount of membrane needed to maintain suction thereby minimizing the amount of surrounding tissue maceration. Wounds still at risk for having bacterial contamination can be treated with placement of small strands of antibiotic laden beads within the multiple layers of such wounds. The combination of these modifications results in an augmented SAWD that more effectively treats severe soft tissue trauma.