Debridement

9.1 Definition of Debridement

The term ‘debridement’ was first coined by Desault (1744–1795), in Paris, referring to the surgical removal of necrotic material from open wounds [1]. Since then, this term has taken on a much broader meaning, and other forms of debridement have been developed, as presented below.

Debridement is defined in *Dorland’s Medical Dictionary* as “the removal of foreign material and devitalized or contaminated tissue from or adjacent to a traumatized or infected lesion, until surrounding [and underlying, in the case of a cutaneous ulcer] healthy tissue is exposed.” Choosing the appropriate method of debridement and employing it correctly may have a significant effect on the healing process.

Debridement can be a lengthy process. Occasionally, one must change the method of debridement during the treatment of an ulcer. This chapter reviews the various types of devitalized tissues and current methods of debridement.

9.2 Appearance of Necrotic Material on an Ulcer’s Surface

Necrotic material on the surface of an ulcer usually appears in one of two major forms: slough, and eschar or crust. Slough may be yellow, green, or gray/white (Fig. 9.1). It is usually soft, ranging from a liquefied mass to semi-solid or relatively solid material; it is composed of necrotic proteins, devitalized collagen, and fibrin.

Necrotic material may dry, desiccate, and harden to form eschar, which is brown or black (Fig. 9.2). The term ‘eschar’ was originally used...
to describe the devitalized tissue that appears in burns [2]. Eschar consists of devitalized proteins and collagen from burnt tissue, with cellular debris and solidified secretions. This term has since been applied to the field of cutaneous ulcers, indicating the presence of dry necrotic tissue within an ulcer bed.

Secretions that have dried out on an ulcer bed may form a crust. Although it does not contain dead tissue, a crust that is thick and black may resemble eschar, and it may require similar techniques of debridement for its removal.

Purulent or seropurulent discharge is composed of the debris of dead cells and liquefied tissue (Fig. 9.3). It may indicate the presence of infective bacteria within the ulcer bed. Therefore, according to the dictionary definition of debridement, its removal may be regarded as a form of a debriding procedure. However, the currently accepted concept of debridement relates to the removal of slough and eschar only.

In this chapter we discuss the various techniques for removing eschar and slough. Treatment of secretions is detailed in Chap. 20. The discussion on absorptive dressings (which are actually a form of mechanical debridement) intended for secreting ulcers can be found in Chap. 8.

Sometimes, the surface of a cutaneous ulcer may present a combination of two or more of the above forms of necrotic material, and the appropriate debridement measures should be considered accordingly.

**9.3 Why Should Ulcers Be Debrided?**

The observation that wounds and chronic cutaneous ulcers improve following appropriate debridement therapy has been made for centu-