#### **EXAMPLES:**

Slough (yellow wound debris) cleared:



Before

After

Slough, necrotic tissue (dark area) and callous debrided:



Before

After

Eschar (dark, leathery devitalized tissue) removed:



Before

After

### Slough cleaned:

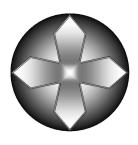


Before

After

### **Treatment Team at Work**





AISTHETIKOS, INC.

Melissa M. Smith, M.D.

Plastic Surgeon

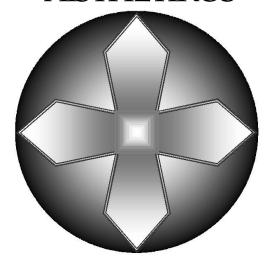
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# COMPREHENSIVE WOUND CARE

## **AISTHETIKOS**



WOUND DEBRIDEMENT

### WOUND DEBRIDEMENT

#### BASIC WOUND CARE

The first evidence of wound care can be traced back to ancient Egypt in 2400BC. We have come a long way since then, but the basic principles of treatment remain the same.

Wound debridement is one of the mainstays of wound care and often necessary not only to speed up wound closure, but in some cases to simply achieve healing.

#### WHAT IS DEBRIDEMENT?

**Debridement** is the act of removing dead tissue, contaminated tissue, adherent tissue, or foreign material. This is essentially the removal of all materials that promote infection and delay healing.

Debridement can be performed in the following three ways:

#### 1. Enzymes

Topically applied medications that breakdown the nonviable cells and leave behind the healthy cells.

#### 2. Nonselective treatments

Routine treatments such as dressing changes or hydrotherapy, that remove some (usually minimal amounts) of the unhealthy tissue.

### 3. Selective procedures

Minor procedures performed by a trained professional to physically remove the dead and diseased tissue down to healthy, viable tissue.

Of the debridement options, selective (often called surgical) procedures are the most

effective method of removing necrotic tissue, but require clinical skill and judgment. Enzymatic debridement works well over time, but unfortunately the best agents were taken off the market by the FDA in January 2009, until further research can be done on safety and efficacy of these products. Nonselective debridement options work well if the woundbed is clean, but are often not aggressive enough to clean up wounds with devitalized tissue.

# WHY DO WOUNDS NEED DEBRIDEMENT?

Removal of unhealthy tissue is a prerequisite to new tissue growth. Devitalized tissues are a source of endotoxins that inhibit proper wound healing and increase the chance of infection.

Many long-standing (chronic) wounds have lost the stimulation by the body to heal, in part due to reduced amounts of wound healing factors. In chronic wounds the act of debridement can "trick" the body into thinking that the wound is new (or acute). This in turn causes the body to send the proper growth factors to the wound, which begin the cascade of events necessary for normal wound healing.

# HOW IS BEDSIDE WOUND DEBRIDEMENT PERFORMED?

The wound is first anesthetized with a topical numbing agent. Patients with extremely painful wounds may be given pain medications by the nurse prior to the procedure.

A curette (a spoon-shaped surgical instrument) is used to scrape the wound surface clean, removing any necrotic tissue or wound debris. Once debridement is

complete the wound is dressed as usual and daily treatment is resumed.

If at any time the procedure becomes too uncomfortable, the debridement is stopped. Pain control is the primary goal. Our aim is to obtain the maximum amount of healing with the least amount of discomfort to the patient.



Numbing Spray

Cleaning the Wound

# HOW OFTEN IS THE WOUND DEBRIDED?

This varies depending on the individual patient and the particular wound. Some wounds never need debridement, some may need it only once, and some may need cleaning on a weekly basis. The wound is reevaluated at serial intervals to determine if debridement would aid in successful wound closure.

#### WHAT ARE THE BENEFITS?

Increased rate of wound healing and reduction in the rate of infection are the most significant benefits obtained by wound debridement.

#### WHAT ARE THE RISKS?

Bedside wound debridement is generally well tolerated and the risks are usually minimal. The most common risks include (but are not limited to) pain and bleeding, both of which, if present, tend to be minor.