

Short Communication**DIABETES : TREATING WOUNDS AND INJURIES**

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ABSTRACT:

Diabetes is a condition in which the body does not effectively use sugar. Wound healing can be slowed when the patient is diabetic. Here are several factors that influence wound healing in a diabetic patient, and may include:

Introduction**Blood Glucose Levels**

An elevated blood sugar level stiffens the arteries and causes narrowing of the blood vessels. The effects of this are far-reaching and include the origin of wounds as well as risk factors to proper wound healing.

Poor Circulation

Narrowed blood vessels lead to decreased blood flow and oxygen to a wound. An elevated blood sugar level decreases the function of red blood cells that carry nutrients to the tissue. This lowers the efficiency of the white blood cells that fight infection. Without sufficient nutrients and oxygen, a wound heals slowly.

Diabetic Neuropathy

When blood glucose levels are uncontrolled, nerves in the body are affected and patients can develop a loss of sensation. This is called diabetic neuropathy. When there is a loss of sensation, patients cannot feel a developing blister, infection or surgical wound problem. Because a diabetic patient may not be able to feel a change in the status of a wound or the actual wound, the severity can progress and there may be complications with healing.

Immune System Deficiency

Diabetes lowers the efficiency of the immune system, the body's defense system against infection. A high glucose level causes the immune cells to function ineffectively, which raises the risk of infection for the patient.

Infection

With a poorly functioning immune system, diabetics are at a higher risk for developing an infection. Infection raises many health concerns and also slows the overall healing process.

Key Factors in Treating a Diabetic Wound**1. Wound Assessment**

Diabetic wounds fall into three categories: neuropathic, ischemic, and neuroischemic. Knowing the distinct features of each wound category is essential to identifying wound progression, **infection**, and healing. Failure to properly identify the type of wound that exists can lead to an ineffective diabetic **wound treatment** plan, causing long-term complications or **amputation**.

2. Tissue Debridement

Wound debridement, or the removal of necrotic tissue from a wound, will reduce pressure, stimulate **wound healing**, allow for the inspection of underlying tissue, help with secretion or wound drainage, and optimize a wound dressing's effectiveness. Clinicians typically recommend sharp debridement by scalpel or scissors, but there are other tissue-removal treatments they may recommend, including larval, autolytic, and ultrasonic.

3. Infection Control

Infections are the top concern in any diabetic wound treatment plan. Due to the high morbidity and mortality rates associated with **diabetic wounds**, more aggressive forms of **infection** control

are necessary. Both oral and topical antibiotics are recommended for all diabetic **wound treatment** patients who show signs of **infection**, even mild ones. Topical antimicrobials can reduce bacteria, protect against further contamination, and prevent the spread of infection deeper into the wound. Typical **wound dressings** used in treating **diabetic wounds** are those impregnated with antimicrobial agents to help fight **infection**. Clinicians often prescribe advanced wound care dressings that include silver, iodine, medical-grade honey, or polyhexamethylene biguanide (PHMB) which work to enhance healing by keeping your wound moist.

4. Moisture Balance

Choosing the optimal dressing for a diabetic wound is essential to successful **wound healing**. The

proper wound dressing will help maintain a balanced moisture environment (not too wet or too dry) and allow the wound to drain and heal properly. The location of the wound will also be taken into consideration by your clinician when they choose a dressing. While each wound needs to be assessed properly, some common dressings that can be used for **diabetic wounds** include alginates, hydrocolloids, and films.

5. Pressure Offloading

For most diabetic wound treatment plans for patients suffering from foot or leg ulcers, pressure reduction or offloading is a key factor in preventing complications. A non-removable total contact cast (TCC) redistributes pressure evenly throughout the lower leg and can reduce healing times