



## **Lowe Plastic Surgery (LPS)**

### **Dr. Lowe's Facts about Complex Wound Care**

#### **How do I get started?**

Patients with complex wound must prepare in advance. All patients, even those whose family or nurses perform care, should know wound care in case of an emergency and to ensure proper care. It is important to clean complex wounds at least once or twice a day in a clean space. Most patients prepare by cleaning their bathrooms and disinfecting the countertops and surfaces with bleach. A clean work area is important to avoid environmental contaminants and bacteria prevalent in our daily life. Patients should purchase cleaning products, hand sanitizer, and other relevant supplies. Dressing supplies should include but are not limited to: soap, non-sterile gloves, hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), Vaseline, porous gauze, abdominal pads, compression garment or bra, and medical tape. Your physician will usually give you specific wound care instructions and supply you with of list of needed products.

#### **What are the basic instructions?**

In most cases, all complex open wounds require a similar wound care regimen. The specifics of every patient's wound care process should be provided by the health care professional. First is the wound infected or prone to infection. In either case, your physician may prescribe a topical or oral antibiotic which should be taken as instructed. Next, complex open wounds are either "wet" or "dry". If the wound is wet, oozing, or draining it should be dried. If the wound is dry, hard, or crusty it should be made wet. Dirty or wet complex open wounds are often treated with a 3-5 day course of hydrogen peroxide soaks. This is performed by soaking gauze or cloth in diluted H<sub>2</sub>O<sub>2</sub> and applying to the wound for 5-10 minutes. A basin of diluted H<sub>2</sub>O<sub>2</sub> can also be used to soak your extremities when necessary. After the wound is cleaned of contaminants then the process of wound healing can often be initiated.

#### **Is cleaning the wound important?**

The most important part of complex wound care is cleaning. If the wound is not properly cleaned it will never heal. Complex open wound care usually starts with cleaning the wound in the shower (not a tub) with a gentle soap and water. The soap should be hypo-allergenic without fragrance like Dove. The water can be tap water as long as it is clean and drinkable. It is important to use medical gauze or wash cloth to clean the wound daily creating a small amount of friction on the surface to remove the "biofilm" or outer debris. Outer dressings or garments can be re-used as long as they are washed routinely. Cleaning a complex open wound does not cause an infection, it prevents infection.

#### **Why is my wound so sensitive or painful?**

Complex open wound that are sensitive or painful may be infected or inflamed. It may take up to a week of proper wound care before sensitivity or pain decreases. Increased pain or redness can indicate a severe wound infection and immediate evaluation is recommended when symptoms sudden worsen. Most complex open wounds must stabilize before effective wound healing can occur. As the sensitivity and pain decreases the wound will then slowly begin to heal. Good wound care is often associated with some limited pain and discomfort. Most patients should expect some pain with standard physician or wound care clinic visits. If patients are not made to feel some discomfort then the healing is usually compromised. Wound care is usually about some amount of pain and gain. No "pain", no "gain" is the most common motto associated with complex wound care. Patient who notice a significant change in the wound such as increased redness, severe pain, cloudy drainage, or a fever of 102 degrees or greater should notify their physician or go to a local emergency room for evaluation.

#### **Why do the instructions always change?**

Complex wound care usually requires professional supervision. Some patients with complex open wound are referred to wound centers for supervision and care. Most complex wounds in our practice are closely managed by the staff or physician. Patients are required to be seen consistently and wound care is modified based on the quality and location of the wound. Our practices first goal is to stabilize the wound by cleaning it gently allowing time for wound support and strength. Then the complex open wounds is usually

progressively cleaned and debrided. Finally, the wound slowly begins to heal and may even be closed when the time is right. The proper care of complex wounds is dependent on the stage of wound healing and change is a vital requirement for success for most patients.

### **Does the color or shape of the wound matter?**

A “beefy red” like a fresh uncooked steak is a healthy wound. Wounds that are crusty and brown usually require professional cleaning and care. A complex open wound should slowly transition from brown, to yellow, to red. The wound may even heal too quickly bleeding excessively requiring minor debridement or cauterization. Most wounds heal slowly from the bottom up. As the wound fills in the wound will then contract on the surface and close. The process of complex wound healing is predictable and the patient and physician’s role should be supportive. Most wounds will heal when given just a small advantage.

### **Are things that I may be doing to delay wound healing?**

Complex open wounds often associated with a number of contributing factors. Patient with immunosuppression, uncontrolled diabetes, or cardiovascular disease are more prone to wound complications. In these situations, a wound can pose a substantial risk and can even result in death. Even healthy patients can struggle with complex open wounds often without explanation. We know that tobacco is the single biggest enemy in our culture to proper wound healing. Even one cigarette, before or after surgery, can cause a plastic or reconstructive procedure to fail. Avoiding tobacco products and even second hand smoke is critical to allow complex wound healing. Constricted agents such as decongestants, diet medications, stimulants, and caffeine will also decrease wound healing. Proper wound healing also requires adequate nutritional support, in particular protein. Dr. Lowe can provide you with further information or check out our website at [www.drjlowe.com](http://www.drjlowe.com)

### **Will my wound ever heal?**

Complex open wounds take a long time to heal in most situations. Most complex open wounds take 2-3 months to fully heal and over a year for the scar to fully mature. Some complex open wounds simply will not ever heal and require delayed closure after the wound has stabilized. Your surgeon can give you a good prediction for how long it will take for your wound to heal. In many cases the wound will heal faster than anticipated and in others it will take substantially longer than anticipated. The most important factor in wound healing is patient compliance with instructions and follow-up. Patient should also make every effort to discontinue any activities that may delay wound healing. Dr. Lowe will often need the assistance of other specialist to heal complex wounds such as infectious disease, wound centers, or hyperbaric oxygen. There are a number of wound care products such as topical antibiotics or growth factors that may be required in some situations. Your board certified Plastic Surgeon or Dermatologist can assist you in the treatment that is best for your clinical situation.

### **How effective are medically supervised wound care regimens?**

Medically supervised wound care is usually the most effective way to heal a complex open wound. Many wound care products provide modest improvement in wound healing over time. Effective wound care products require patients to follow a strict protocol and long-term use in order to see noticeable results over time. A well-balanced wound care program often required sharp surgical debridement of the wound once or twice a month. Special wound care products or even a wound V.A.C. may be indicated in a limited number of situations. Most wound care includes consistent chemical or mechanical treatment of the wound over time. Almost no over-the-counter products can provide effective dosing without a physician prescription or supervision. Some products sold over-the-counter may actually harm the wound in certain situations. Your physician or health care professional can help you develop a wound care regimen that is right for you. It is best for patients to closely stick to the wound care instructions to optimize clinical success.

### **Are there risks associated with complex wound care?**

All skin care products are associated with a limited amount of risk. The risks are often associated with a patient’s skin color or consistency. Darker skin types are at a higher risk for complications associated with medically prescribed Hydroquinone or Retin-A. All laser skin care must be adjusted and formulated appropriately for skin types. The risk of skin care include: poor aesthetic results, swelling, crusting, hyperpigmentation, hypopigmentation, and scarring. The more aggressive skin care programs the higher

the risk minor complications. Most over-the-counter products are quite safe when used as recommended, but many of these products are not scientifically tested and can cause skin irritation or contact dermatitis. Patients who experience a significant problem with any skin care product should discontinue the product and report to their physician immediately. Some medically prescribed skin lines do not cause a problem for some time. Skin rejuvenation is always a balance between “pain & gain.” The pain of skin care includes time, skin sensitivity, and cost. Your board certified plastic surgeon or dermatologist can assist you with choosing the treatment that is right for you.

**Is complex wound care costly and time consuming?**

Physician supervised wound care or wound centers can be time consuming and costly. Patients with complex wounds related to a medical condition usually have care paid for by insurance. Patients with complex open wounds resulting from cosmetic procedures will on occasion incur added cost. In such situations, for Dr. Lowes own post-surgical cases there is usually no financial cost as long as surgery with anesthesia is not required. Most complex open wounds require multiple follow-up appointments and supplies. A limited number of patients may require scar revision 6-8 months after the wound fully heals. Consultation with specialist to assist in complex wound care is almost always covered by insurance plans. Certain special treatments such as hyperbaric oxygen or wound V.A.C. may require pre-approval. No matter what the needs, Dr. Lowe and his staff will do their best to assist patients in a full recovery.

**Is complex wound care right for me?**

Complex open wounds are not something a patient chooses it is something that chooses them. There are a number of factors that contribute complex open wounds. Many of these factors are not foreseeable or predictable. Plastic surgeons routinely perform complex procedures that may result or contribute to a complex open wound. Plastic surgeons are often required to perform complex surgeries to address complex problems. Most patients with complex open wound have sought consultation with a number of experts or specialist. Many patients would prefer a simple solution for a complex problem, but complex wounds require complex solutions. These solutions often require persistence and patients over several months. In some situations, there may not be any good solution at all based on the clinical situation. Your board certified plastic surgeon or dermatologist can almost always help to care or heal most complex open wound. We may not win now, but we almost always win over time. The most important factor for success is the patient and their family members. Patients should carefully weigh the pros and cons of complex wound care before undergoing treatment. Each patient is unique, a consultation with a Board Certified Plastic Surgeon or Dermatologist can help you determine what options best suite your situation and pocket book. Complex wound care is often the right thing for the right person and can often be the only option. For further information check out our website or other helpful links at [www.drjlowe.com](http://www.drjlowe.com)

**What are Dr. Lowe’s take home points?**

1. Complex open wound care starts with preparation.
2. Patients need to get supplies: gloves, soap, gauze, medications, and garments as needed.
3. Patient communication with the health care provided is important to success.
4. It is best to keep the wound care simple but structured.
5. A “wet” wound should be dried; a “dry” wound should be wet.
6. Good complex wound care must change as the wound changes.
7. Patients should report any unapproved changes in wound care to their physician.
8. Other products can accelerate wound care but they may be complicated or costly.
9. Pick and stick with a wound care professional or Plastic Surgeon you trust.
10. Re-evaluate wound care on a consistent basis to ensure the most effective recovery.

My current wound care supplies: \_\_\_\_\_

My current wound care instructions: \_\_\_\_\_