

## Ocean Aid: All-Natural, High Quality, Cost-Effective Wound Treatment

By **Eddie Kolos and Marty Stern**

**Ocean Aid, Inc.** is dedicated to providing healthcare professionals and patients with all natural products that effectively heal skin trauma, prevent infection, and nourish healthy cells. Our innovative products combine antibacterial enzymes with natural elements and minerals to help regenerate and protect living cells. Our products have achieved incredible results by reducing average healing time by almost 50%, as well as minimizing scarring. Ocean Aid ensures superior wound care for your personal healing needs by offering high quality and cost-efficiency.

### A Unique Formula

The patented formula used to create the Ocean Aid line of products is a sterile solution comprised of reverse osmosis water, coral reef sea salt, and the natural enzyme, lysozyme. Lysozyme is an archaic enzyme found naturally in the human body's breast milk, saliva, tears, mucosal secretions, gastrointestinal fluids, amniotic fluids, blood, and urine. Lysozyme attacks over 650 types of bacteria, fungi, and viruses harmful to the human body. Using lysozyme to target the gram-positive bacteria, while leaving the beneficial bacteria unharmed, is the most advantageous method of maintaining the immune system.

To obtain the optimal delivery system for the lysozyme we added coral reef sea salt. The sea salt helps to recreate the natural environment of lysozyme to achieve its maximum effectiveness. The sea salt also safely nourishes the affected area, increases blood circulation, and establishes an isotonic solution that the human body will accept. Coral reef sea salt contains over 82 major and minor elements and minerals that the body needs, especially during the regeneration of cells.

Podiatrists, pediatricians, cosmet-

ic surgeons, dentists and homeopathic practitioners have all been experiencing success with our products. They have reported reduced healing times, patient compliance, ease of use and painless application.

We would like to emphasize that our products are all natural, sterile, and pharmaceutical grade, as well as being pH and salt balanced. Ocean Aid products have been proven to aid in the healing process of numerous skin and throat conditions. After



extensive research and clinical testing, we are confident that the medical community needs our products to effectively help people experiencing many different ailments.

### Treating Wounds The Natural Way

Infections and diabetic foot ulcerations are the most common reason for a diabetic patient to be admitted to the hospital. The diabetic foot triad, which consists of peripheral neuropathy, deformity and minor trauma, has been described as the causative pathway to diabetic foot ulcers (Reiber, et al). The peripheral neuropathy causes loss of protective sensation which allows minor trauma to occur; the patients cannot feel it, so initially it causes inflammation, bulla formation or hematoma and if

it continues to go untreated severe ulceration and infection set in. Foot deformities cause an increase in pressure on several plantar surfaces. This, along with peripheral neuropathies, undoubtedly lead to diabetic foot ulcerations. Patients that have previously had ulcerations or amputations are at higher risk for these complications.

Ocean Aid is an all-natural product line that was developed to heal wounds without using harmful antiseptics and disinfectants. Antiseptics and disinfectants do kill bacteria, but they also destroy the healing tissues (including scaffolding subcutaneous structures and migrating and regenerating epithelial cells), and the inflammatory cells that are cleaning up necrotic debris and harmful bacteria. Unlike other products on the market, the goal of Ocean Aid is to kill microbial invaders and provide essential minerals to enhance cell growth and repair, resulting in a faster healing time.

The key ingredient in Ocean Aid products is lysozyme. The lysozyme used in this product is isolated from domesticated chicken egg whites, but it has been found in bacteriophage, yeast, invertebrates, fish, reptiles, birds and mammals (Chung et al., 1988). In the blood, lysozyme is produced by macrophages and neutrophils which are the first white blood cells on the site of any trauma or invasion (Cross et al., 1988). Lysozyme is a single polypeptide chain of 129 amino acids that contains four disulfide bridges between cysteine residues 6-127, 30-115, 64-80, 76-94 which gives it a unique shape that is needed for its active state (Holm and Sander, 1994).

Lysozyme (aka. Mumamidase) enzymatic activity is antibacterial because it hydrolyzes polysaccharides that help make up the protective barrier of bacterial cell walls (hence targeting only bacteria). The bioactive tertiary structure has a binding site that accommodates six hexoses.

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When lysozyme comes into contact with these bacterial polysaccharides they bind via these active binding sites causing stress on the fourth hexose, which breaks the C-O bond and a water molecule is inserted and the enzyme is released and ready to work again. The accumulation of broken bonds in the bacterial cell wall causes structural instability, leaving the bacteria susceptible to osmotic pressure and lysis. Essentially, it lyses bacterial cell walls,, leaving eukaryotic cells intact. This bactericidal activity is most effective for gram positive bacteria, which is the cause of most skin infections, including Staph and Strep.

### Ocean Aid Spray

Ocean Aid spray is a patented isotonic sea salt solution (0.9% NaCl) that provides many elements and minerals that are essential for accelerated wound healing. This formulation is also the optimum environment for the lysozyme to work most efficiently. It helps increase blood flow at the affected site and provides the essential elements and minerals that are cofactors for enzymes used for repair and new cell growth. The product's packaging is also one of its many great features. The packaging is a state-of-the art container that keeps the solution completely sterile throughout its entire use. The interior lining prevents bacteria and any other airborne particle from entering and contaminating the solution. Ocean Aid spray can be used for topical cleansing and debriding of any wound, including stage I-IV pressure ulcers, diabetic ulcers, burns, lacerations, abrasions, post-surgical wounds, psoriasis, epidermalis bullosa, and even insect bites.

### Ocean Aid Foam

Ocean Aid moisturizing foam uses the same concepts as the spray, which include lysozyme that is cytolytic to gram-positive bacteria. It also incorporates very important ele-

ments and minerals to promote cell and tissue growth to accommodate accelerated healing provided by the sea salt. The moisturizing foam has a unique composition that keeps these extraordinary elements over the affected area, creating an invisible bandage that does not clog pores and is easy to apply. Ocean Aid moisturizing foam is appropriate for many conditions that podiatrists encounter on a daily basis. This formulation has successfully treated and healed conditions such as psoriasis, postoperative phenol/alcohol procedures, and excision of porokeratotic lesions, mo-

*The Ocean Aid line was developed to heal wounds without using harmful antiseptics and disinfectants.*

saic verruca, verruca plantaris, molluscum contagiosum, and hereditary keratosis punctata plantaris.

### Satisfaction and Synergy

The podiatrists currently using these products are reporting reduced healing times, painless application and 100% patient satisfaction and patient compliance. Ocean Aid Spray and Ocean Aid Moisturizing Foam have a wide range of indications, and these products are also well tolerated by all ages and skin types. Some of the indications include burns, lacerations, abrasions, sore throats, conjunctivitis, post-operative wounds and almost any penetration of the skin's defense mechanisms. These products can also be used together synergistically; the spray would be applied first for the increased con-

centration of lysozyme and the moisturizing foam can be applied after the spray has dried to form a bactericidal barrier. These products can be easily dispensed by the podiatrist in his/her office, increasing both office revenue and patient compliance.

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### References:

- Cross et al., 1988 M. Cross, I. Mangelsdorf, A. Wedel and R. Renkawitz, Mouse lysozyme M gene: isolation, characterization, and expression studies, Proc. Natl. Acad. Sci. USA 85 (1988), pp. 6232-6236.
- Holm and Sander, 1994 L. Holm and C. Sander, Structural similarity of plant chitinase and lysozymes from animal and phage. An evolutionary connection, FEBS Lett. 340 (1994), pp. 129-132.
- Chung et al., 1988 L.P. Chung, S. Keshav and S. Gordon, Cloning the human lysozyme cDNA: inverted Alu repeat in the mRNA and in Situ hybridization for macrophages and Paneth cells, Proc. Natl. Acad. Sci. USA 85 (1988), pp.6227-6231.
- Dommett et al., 2005 R. Dommett, M. Zilbaur, J. T. George and M Bajaj-El-liott, Innate immune defence in the human gastrointestinal tract, Molecular Immunology London 42 (2005) pp903-912.
- Reiber GE, VileikyteL, Boyko EJ, et al., 1999 Causal pathways for incident lower-extremity ulcers in patients with diabetes from two settings. Diabetes Care. 1999;22(1):157-162
- Rogers LC, Armstrong DG, et al., 2006 Assessing diabetic foot risk. Podiatry Management Nov/Dec 2006 51-55

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