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MOLECULES & HEALTH

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Reducing Edema-Associated Skin Complications



Skin problems associated with edema (swelling) are common and difficult to treat. In addition, the diagnosis of lymphedema or phlebolymphe-
dema often signals substantial changes in an individual's quality of life. Physical complications and changes in appearance may lead to embarrassment and withdrawal from normal everyday activities.

There are two main causes of lymphedema: the removal of lymph nodes during the diagnosis and treatment of cancer, and chronic venous insufficiency (CVI). Lymphedema associ-

ated with cancer is caused by either the removal of lymph nodes during cancer surgery or damage to lymph nodes during radiation therapy. This loss or damage can reduce or stop the normal flow of lymphatic fluid through the lymphatic system.

Lymphedema associated with CVI is referred to as phlebolymphe-
dema. This condition usually develops over an extended period of time and is difficult to treat. Wounding is often found with phlebolymphe-
dema due to the skin losing vital structure. Edema causes structural changes in the skin and capillaries that are required for skin integrity. A thickening of the epidermal, dermal and soft tissue is related to the skin and capillary damage. The skin of individuals with lymphedema or phlebolymphe-
dema is also prone to bacterial infections

and inflammation.

Helping Reduce Inflammation

Small Molecule Technologies skin and wound care products contain ingredients that help reduce inflammation including the beneficial polyphenols oleuropein, resveratrol, and epigallocatechin-3-gallate (EGCG) from olives, grapes, and green tea, respectively, as well as the important small molecules, melatonin, and L-glutathione. In addition, dipotassium glycyrrhizinate from licorice, avenanthramides in oats, aloe vera and shea butter have also been shown to possess anti-inflammatory activities.

Proper skin care including gentle cleansing with Small Molecule Technologies Antiseptic Cleanser-CS is vital for individuals with edema. Antiseptic Cleanser-CS



provides a constant spray at any angle including upside down. It includes a gentle, broad-spectrum antimicrobial used in many eye drops, and it reduces the over-population of microorganisms while maintaining the balance of the skin's normal chemistry and flora. In addition to providing skin with proper care, monitoring individuals with edema for signs of infection including redness, heat, or pain (that could require medical diagnosis and treatment including antibiotics) should be performed daily.

Compressions Garments and Silicone Barrier

Various compression garments including compression stockings can improve edema. Compression treatment applies a light, even pressure. The use of compression can reduce swelling and protect fragile capillaries from damage. Compression garments or bandages cause an opposing force against accumulating lymph fluid and compression therapy often requires their use for extended periods of time. Although the garments and bandages currently available are made of advanced

materials that are more comfortable, they can still have undesirable effects such as wicking moisture out of skin resulting in dry skin.

Advanced silicone products like Small Molecule Technologies Silicone Barrier that includes dimethicone can provide a barrier to keep moisture in the skin. In addition, Silicone Barrier can be used to help decrease scarring that is often reduced when the skin is kept hydrated. Moreover, Silicone Barrier can help prevent skin irritation by providing a protective barrier to keep out irritants and prevent rubbing and chafing. In fact, Silicone Barrier can help glide certain compression garments into place due to its excellent ability to prevent friction that frequently causes skin injuries.

Providing Nutrients and Decreasing Scarring

Another important benefit of Silicone Barrier is that it provides nutrients to skin. Many individuals requiring compression therapy have compromised circulation that does not allow the proper flow of nutrition from the blood

into the skin. Silicone Barrier provides nutrients including antioxidants, amino acids and vitamins to help strengthen skin and prevent skin damage. Together with other Small Molecule Technologies skin and wound care products (as discussed above) Silicone Barrier also includes anti-inflammatory ingredients that help reduce irritation, discomfort and scarring.

Besides beneficial nutrients, Silicone Barrier contains a sophisticated silicone complex that remains effective after several soap and water washes. A small amount of Silicone Barrier is all that is needed to provide a silky, durable barrier to moisture loss. In addition, the barrier provided by Silicone Barrier is a "breathable" barrier that is non-occlusive, allowing the skin to maintain its normal gaseous exchange to increase skin health. Furthermore, Silicone Barrier includes ingredients that decrease the risk of infection.

It's good to know that Small Molecule Technologies Antiseptic Cleanser-CS gently cleanses fragile skin while providing nutrition and antimicrobial ingredients to protect and strengthen skin. Small Molecule Technologies Silicone Barrier goes on skin easily even when the skin is moist to provide a silky, smooth barrier that helps garments including compression stockings glide into place. Silicone Barrier also provides nutrients to strengthen skin as well as anti-inflammatory ingredients to help reduce irritation and scarring.



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