



SMALL MOLECULE TECHNOLOGIES, INC.

# MOLECULES & HEALTH

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## Decreasing Psoriasis



It's estimated that 7.5 million individuals in the United States have psoriasis. Psoriasis is one of the most prevalent chronic inflammatory skin diseases. The most common form of the disease is chronic plaque psoriasis (psoriasis vulgaris), accounting for approximately 90% of psoriasis cases. Psoriasis varies in severity and is commonly associated with arthritis. In fact, around 80% of individuals with psoriatic arthritis have skin involvement before the onset of arthritis. Typical psoriatic skin lesions are characterized by erythematous (red) plaques (patches) covered with silvery scales. Pustular psoriasis characterized by white pustules is less common.

Psoriasis vulgaris can be separat-

ed into two different types: type 1 is characterized by a strong family history and genetic component, and usually presents before 40 years of age, whereas type 2 is not characterized by a family history or genetic component, and usually presents after the age of 40. With either type of psoriasis vulgaris, the plaques may be few, they may extend over large areas of the body, or they may affect the entire body. Plaques can occur on any region of the body, but typical locations of inflammation and lesions include the forearms and shins, elbows and knees, around the belly button (peri-umbilical), in the anal or genital region, and on the scalp. In fact, 75-90% of individuals with psoriasis have involvement of the scalp region.

Small Molecule Technologies skin and wound care products contain potent anti-inflammatory small molecule ingredients 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.

### Helping Increase the Quality of Life

Psoriasis involves hyperproliferation and abnormal differential (maturation) of epidermal keratinocytes, immune cell infiltration consisting mainly of T cells and various endothelial vascular changes in the dermal layer including vascular dilation. The premature maturation of keratinocytes is induced by an inflammatory cascade involving dendritic cells, macrophages and T cells. The epidermal cells are replaced every 3 to 5 days in psoriasis instead of the normal 28 to 30 days. In fact, the production

of keratinocytes in plaques is approximately 28 times greater than found in normal epidermis.



Psoriasis can have a significant impact on an individual's quality of life. The scaling appearance of the skin and the pruritus (itching), pain and swelling associated with the lesions can result in anxiety, depression and loss of income for individual's with psoriasis due to the disabling aspect of the disease. Depending on the severity of psoriasis, it can be treated with different pharmaceutical therapies including immunosuppressive medications like methotrexate or cyclosporine, T cell modulating agents, and inflammation targeting agents like TNF-alpha inhibitors.

Mild to moderate psoriasis can be treated with corticosteroids like hydrocortisone found in Small Molecule Technologies Hydrocortisone 1% Cream.

Hydrocortisone is frequently prescribed to treat psoriasis for the temporary relief of pain, itching, swelling and inflammation. Other basic topical therapy including

cleansing with a gentle cleanser like Clean N Moist can protect skin barrier function, increase remission times between flare-ups and enhance the effects of pharmaceutical therapies.

Clean N Moist is perfectly pH balanced to ensure the most fragile skin is gently cleansed without causing irritation.

### **Reducing Swelling, Itch and Pain**

Psoriasis can be provoked by non-specific triggers such as mild trauma including skin scratches, sunburn or chemical irritants. Systemic drugs including beta blockers and antimalarials can exacerbate psoriasis. Evidence also suggests that bacterial or viral infections may trigger psoriasis. In addition, psoriasis is associated with other inflammatory diseases including arthritis, Crohn's disease, and cardiovascular disease. Early intervention, careful monitoring, and a multidisciplinary ap-



proach to psoriasis including optimal skin care provided by Small Molecule Technologies skin and wound care products like Hydrocortisone 1% Cream and Clean N Moist are important for individuals with psoriasis.

It's good to know that Small Molecule Technologies Hydrocortisone 1% Cream and Clean N Moist include potent anti-inflammatory ingredients. Hydrocortisone 1% can help reduce swelling, itching and pain associated with psoriasis. Clean N Moist cleanses sensitive skin gently and can protect and nourish skin, as well as enhance its barrier function.

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