



SMALL MOLECULE TECHNOLOGIES, INC.

MOLECULES & HEALTH

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Helping Prevent Fragile Skin Bruising



As the number of individuals living longer rises, the prevalence of certain skin issues experienced by older individuals, such as fragile skin bruising, is increasing.

Fragile skin bruising or senile purpura (sometimes called solar purpura) is a common skin disorder that occurs with at least 10% of individuals over the age of 50, and 29% of elderly individuals.

Although the bruising is typically not painful it can be fairly irritating. Moreover, fragile skin bruising is highly visible and is likely to have a significant psychological impact. Fragile skin bruising appears as red or purple spots or patches in the skin that fade to brown. It is characterized by hemorrhages in the skin due to vascular fragility, trauma, or deficient coagulation. The bruises are commonly associated with skin tears and can result from very minor trauma including bumping into fairly soft objects.

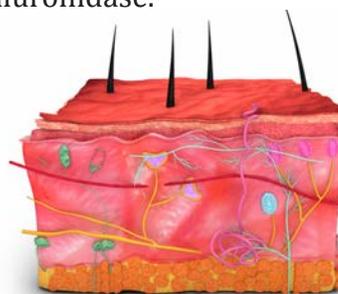
Fragile skin bruising is caused by a weakness in vascular supporting tissues as well as a thinning of vascular walls that occurs with aging. Senile purpura is also called solar purpura because photoaging (or aging induced by exposure to the sun) also causes fragile skin bruising. In addition, fragile skin bruising typically occurs in areas of the body that would be exposed to sunlight including the hands, forearms, and legs.

Aging Skin and Oxidative Stress

Aging skin loses 20% of its thickness. The subcutaneous layer located beneath the dermis becomes thinner as well, resulting in a lack of cushioning and insulation.

Lack of cushioning translates into less shock absorbance with any trauma. In addition the degradation of elastin and collagen fibers as well as the extracellular matrix (including hyaluronic acid) that occurs with aging and increased oxidative stress provide a less permissive environment for normal vascular structure and function.

Small Molecule Technologies skincare products include ingredients that counteract oxidative stress including oleuropein, resveratrol, EGCG from olives, grapes and green tea respectively, as well as melatonin and L-glutathione. Small Molecule Technologies skincare products also include ingredients that help protect the major extracellular matrix component (ECM), hyaluronic acid, and ingredients that increase collagen. Hyaluronic acid degradation that occurs with aging results from free radicals and oxidative stress, as well as from the destructive enzyme, hyaluronidase.



A key ingredient in Small Molecule Technologies skincare products, dipotassium glycyrrhizinate protects hyaluronic acid from degradation caused by hyaluronidase. Further, Small Molecule Technologies skincare products' potent small molecule ingredients, including oleuropein and resveratrol, transport well

into the skin to enhance vascular health and support vascular function.

Increasing Skin Collagen

Titrated extract of Centella asiatica (TECA) and aloe vera found in Small Molecule Technologies skincare products stimulate collagen production in skin.

Small Molecule Technologies Renewal Moisturizer includes Shea butter that also increases collagen content. In addition, Renewal Moisturizer contains other vital ingredients including antioxidants, amino acids and vitamins that provide nutrients to help build and protect collagen. Moreover, Renewal Moisturizer includes phytonutrients to nourish, hydrate and strengthen skin.

Gentle cleansing with Small Molecule Technologies Clean N Moist can help protect fragile skin. It is perfectly pH balanced to ensure that even the most fragile

skin is gently cleansed without causing irritation. All of the Small Molecule Technologies skin and wound care products are pH friendly because they were designed to match the natural pH range of skin. The small molecule nutrients included in Small Molecule Technologies skincare products strengthen fragile skin providing nutrition to skin depleted of nutrients due to compromised microvasculature and aging.

Protecting Fragile Skin

Besides providing skin strengthening nutrition, other ways to help reduce or prevent fragile skin bruising include wearing long sleeves and pants, having adequate lighting and proper placement of furniture, and padding sharp edges on objects that might be bumped. Cover up skin that might be exposed to the sun, even resting arms on doors of vehicles while driving with open windows has been correlated

with an increased incidence of skin bruising.

It is important to be aware that skin bruising can also be associated with the use of certain medications including corticosteroids, aspirin, anticoagulants, and anti-platelet medications. Frequent bruising could be a sign of abnormal platelets or blood clotting problems, and the advice of medical professionals should be sought if this occurs.

It's good to know that Small Molecule Technologies skincare products including Renewal Moisturizer and Clean N Moist can help strengthen and protect fragile skin to help prevent fragile skin bruising. Small Molecule Technologies potent small molecule ingredients can help reduce oxidative stress associated with aging, increase collagen, and help protect critical extracellular matrix components like hyaluronic acid.

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