DermAvail Renew™ is a cosmetic cream containing a synergistic blend of essential skin-directed nutrients along with natural stimulating factors for optimal skin renewal. It is designed to deliver science-based, skin-supportive active ingredients that are proven to be topically bioavailable due to their ability to penetrate into the epithelial and dermal layers of the skin and have positive effects on the skin’s health and metabolism. This product may be used on the face, neck, hands or anywhere on the body where skin rejuvenation is desired.

The cream base is specifically designed to have a similar composition to sebum, the oil secreted by the sebaceous glands which is responsible for keeping the skin nourished, protected and moisturized. This base provides an ideal delivery of actives because it mixes with the sebum naturally present on the skin and enables the penetration of these actives through the pores. Components of the cream base include capric/caprylic triglycerides, olive squalene, jojoba oil, cholesterol and borage oil.

Many cosmetics on the market contain undesirable, synthetic ingredients that often only penetrate the superficial layers of the skin for a temporary effect. DermAvail Renew™ contains ingredients that have been proven to affect the skin through to the dermal layer, which is an important determinant of skin health and appearance. Continuous use of DermAvail Renew™ for at least six months may help to reduce the appearance of wrinkles while slowing the rate of new wrinkle formation. It may also contribute to improved skin hydration, tone and coloration.

Featuring Palmitoyl Oligopeptide & Palmitoyl Tetrapeptide-7: Fat-Soluble Collagen Peptides

These fat-soluble collagen peptides break down into matrikines, small molecules composed of peptides (short sequences of amino acids), which play critical roles in wound healing and connective tissue remodeling. Matrikine peptides link to cell-surface receptors in order to relay information into the cell via various signaling pathways. Depending on the structure of the matrikine, different types can trigger different messages for cells such as fibroblasts to replicate and increase production of skin matrix components including collagen, elastin and hyaluronic acid. Each collagen peptide is linked to a fatty acid so that they penetrate the skin through to the dermal layer.

Benefits of DermAvail Renew™

- **Supports adequate moisture retention**: which may help counteract the age-related increase in skin dryness. Loss of skin moisture barrier function may be due to various factors such as inflammation, sun damage, age-related decline in skin metabolism and functionality, and/or poor dietary nutrient intake.
- **Provides protection from UV or internal free radical damage**: antioxidant properties (both water and fat soluble); anti-glycating; inhibits collagen breakdown
- **Provides protection from excessive inflammation**: provides EFAs and inhibitors of enzymes controlling inflammatory processes – from grape seed, green tea and collagen peptides (shown to reduce IL-6)
- **Provides a comprehensive array of building blocks for essential skin components**: skin lipids (squalene, wax esters, cholesterol), collagen components (peptides, amino acids), hyaluronic acid – an essential structural and functional component of the skin
- **Supports healthy skin cell replication** (natural folate) and extends lifespan of cells (carnosine)
- **Boosts production of collagen and GAGs (glycosaminoglycans) in the dermal layer for optimal elasticity and thickness**: (fat soluble collagen peptides, aloe, astaxanthin, caviar extract) Aging and deficiency of various hormones and nutrients causes a steady decline of collagen synthesis that may be partially compensated by DermAvail Renew’s active ingredients.
- **Provides mitochondrial support** (CoQ10, creatine)
- **May reduce excessive age-related pigmentation**: due to astaxanthin and aloe
- **Supports skin healing and soothes irritation**: due to aloe, folate, CoQ10, L-carnosine and grape seed
- **May reduce the risk of developing skin cancer by supporting healthy DNA maintenance**: through antioxidant protection and adequate supply of folate

**Palmitoyl Oligopeptide** (glycine-histidine-lysine peptide connected to palmitic acid) Helps stimulate the synthesis of new collagen as well as other components of the skin matrix; replenishing the skin matrix helps support wrinkle reduction, skin firming and overall skin health.

**Palmitoyl Tetrapeptide-7** (glycine-glutamine-proline-arginine peptide connected to palmitic acid) Works by reducing the production of interleukin-6 (IL-6) by keratinocytes and fibroblasts. IL-6 is detrimental because it promotes inflammation, which results in degradation of the skin matrix and contributes to the formation of wrinkles and the loss of skin firmness and elasticity.
Additional Highlights of DermAvail Renew™

- **Caviar extract**: Helps replenish vitamins and minerals such as calcium, zinc and magnesium in the skin; contains essential fatty acids (omega-3s and 6s) in phospholipid form. One study showed caviar increased collagen type I synthesis by 64% and reversed age-related decrease in ATP production characteristic of aged skin. This implies that it may revitalize the declining mitochondrial function of fibroblasts, the skin cells responsible for producing collagen and other dermal structures.

- **Astaxanthin**: Topical application reduces hyperpigmentation; combination of topical and oral supplementation (6 mg) results in improvements in skin wrinkles (crow's feet), age spot size, elasticity and texture of skin, moisture content and condition of corneocyte layer.

- **Annatto Tocotrienols**: Powerful antioxidant and anti-inflammatory. Topical application protects skin from oxidative damage induced by UV-irradiation. One study found that ozone depletes tocopherols and tocotrienols in murine skin.

- **L-Carnosine**: Potent anti-aging effects, as it increases the lifespan of skin cells (fibroblasts); has anti-glycating effects and reduces accumulation of oxidized proteins which increase with age; accelerates wound healing. Palmitoyl is a fat-soluble form of this peptide, which allows it to penetrate deep into the skin.

- **CoQ10**: Antioxidant, easily depleted by UV, corrects some of the age-related decline in mitochondrial function of skin cells and may reduce glycation products by reducing glycation intermediates; increases type IV collagen and elastin expression, has depigmentation (lightening) effect; prevents wrinkles and UV-induced DNA damage; reduces activity of matrix metalloproteinases (which degrade extracellular matrix proteins) such as collagenase, reduces IL-6; increases protein synthesis in the skin; has hydrating and anti-inflammatory effects.

- **Green Tea Extract**: Antioxidant, anti-glycating, inhibits collagenase (the enzyme that breaks down collagen excessively as we age); anti-cancer.

- **Creatine**: Compensates for age-related decline in ATP levels; protects from aging-associated mutations of mitochondrial DNA.

- **Folate (5-MTHF)**: Supports proper DNA formation during cell renewal. Together, creatine and folic acid have been linked to DNA protection and repair, improvement of skin regeneration, protection from UV-induced DNA damage, wrinkle reduction and increased skin firmness.

- **Hyaluronic acid (HA)**: Major component of the skin’s extracellular matrix. HA demonstrates significant moisture retention properties and effects on elasticity and blood circulation. Due to its influence on signaling pathways, HA is also involved in wound-healing.

- **Olive oil**: Source of monounsaturated fatty acids (MUFA) and olive polyphenols, which have antioxidant and anti-inflammatory effects. MUFAs are natural components of human sebum.

- **Grape seed extract**: Inhibits collagen breakdown; promotes faster wound healing.

- **Grape seed oil**: Source of linoleic acid and fat-soluble antioxidants which protect cell membranes; supports wound healing.

- **Glycerine (glycerol)**: Enhances the hydration of the skin’s stratum corneum (outer layer), which in turn reduces skin roughness; helps increase skin elasticity.

- **Aloe Vera**: Improves skin hydration and healing; has skin-lightening effects which may reduce age-related pigmentation.

- **Tocophersolan (vitamin E)**: Emulsifier and absorption enhancer.

- **Cholesterol**: Component of the sebum and an important structural element of skin’s cell membranes; required to maintain both membrane structural integrity and fluidity, and may also provide antioxidant protection.

- **Borage oil (triglycerides or fatty acids)**: Source of GLA; has anti-inflammatory and hydrating effects.

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**How to Use**: Apply generously to skin as needed. This product is a cosmetic for topical use only.

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For a list of related references, click the following research link: