

HORMONE HEALTH & SKIN HEALTH

Dr. Randolph's NEW Estriol Face Cream

What is it?

Dr. Randolph's NEW prescription-only **Estriol Face Cream** consists of Estriol 0.3% , DMAE 3%, and Hyaluronic Acid 0.5% mixed in a cream base. Dr. Randolph, along with Compounding Pharmacist Will McGalliard, developed this combination of ingredients to provide a clinically-proven treatment that will boost collagen, reduce wrinkles, improve skin moisture and elasticity.

How does it work?

One of the many roles of estrogen in the body is to increase the synthesis of collagen, which is the skin's underlying support structure. Collagen also promotes skin thickness and elasticity. As men and women age, collagen production is reduced throughout our bodies, causing facial wrinkles and skin sagging. (Some women may also experience loss of vaginal lubrication and/or thinning of the vaginal wall.) Restoring hormone balance can restore the body's ability to produce collagen, which 'plumps' your skin and helps retain its youthful appearance. Collagen atrophy is a major factor in skin aging, and there is a strong correlation between skin collagen loss and estrogen deficiency at menopause. The skin is an important estrogen-responsive endocrine tissue. Without the growth-promoting effects of estrogen, the skin literally withers away. Thin skin observed in the elderly can be directly correlated to lack of estrogens needed to generate collagen and maintain skin thickness.

Remember that "estrogen" is actually a term for three different hormones: Estrone (E1), Estradiol (E2), and Estriol (E3). When the term "estrogen"

is used, most of the time it refers to Estradiol (E2), which is the highest concentration --80%-- during a woman's reproductive years (from puberty to pre-menopause). Estriol (E3) makes up another 10% and Estrone (E1) makes up the last 10%.

Estriol (E3) is considered a "weak" estrogen which can be derived from plant sources. It does not need to be counterbalanced by progesterone, and does not have a systemic (widespread) effect on the body. This makes estriol an ideal estrogen for topical use, since research suggests its application remains in the skin, rather than in the bloodstream. There is also evidence that estriol, (sometimes called the "good estrogen") may inhibit some of the unwanted effects of estradiol by "binding" to estrogen receptors that typically promote cell proliferation.

Who is it for?

For women or men who wish to improve the appearance and health of their skin by boosting the development of underlying collagen structure, increasing elasticity and skin moisture, and reducing wrinkles. Dr. Randolph's Estriol Face Cream is currently only available by prescription.

What are the ingredients?

In addition to **Estriol** (described above), there are two other active ingredients. **DMAE** is a nutrient that occurs naturally in our brains, in small amounts, and facilitates the synthesis of acetylcholine. Acetylcholine is a neurotransmitter that helps in establishing communication between nerves and muscles, and also in carrying messages between the brain the cells. Acetylcholine works by sending messages to the muscles and stimulates their contraction. Because of this property, DMAE has been used to address sagging skin. It helps stimulate the production of acetylcholine, which enhances skin tone by firming and tightening its appearance from beneath the skin.

Another way that DMAE helps the skin is by reducing the accumulation of lipofuscin deposits inside cells. Lipofuscin is a skin pigment that can create discolorations. It has a brownish color and is a result of molecular waste when fatty acids are not metabolized properly by the body. This pigment oftentimes shows up in the form of liver spots or age spots. DMAE creams also tend to have anti-inflammatory properties and can help reduce free radicals in the body.

Hyaluronic Acid is an active skin care ingredient that retains moisture and creates a cushion to help plump the appearance of aging skin. Hyaluronic acid also helps to heal and soothe inflammation. A pure hyaluronic acid serum can prevent fine lines and wrinkles, providing effective results on prematurely aged or mature skin types.

What does the research show?

Transdermal (or topical) estriol has been shown to be safe and effective in preventing skin aging. In a [study](#) published in February 2007, a group of women were given a topical 0.01% estrogen cream. After only four months, skin thickness was enhanced and collagen levels increased. This study demonstrated that topical estrogen application provided quick and measurable anti-aging effects (even in women who had relatively normal estrogen blood levels). Other studies have investigated the beneficial role that estrogens, especially estriol, can play in maintaining skin firmness, elasticity, moisture content, and even wound healing.

Another such [study](#) was conducted at the University of Vienna in Austria, comparing the topical application of 0.3% estriol and 0.01% estradiol creams over a six-month period. Researchers found that skin symptoms of aging improved, and that those treated with estriol obtained superior results, with no systemic hormonal side effects noted. The results of the study noted: "...elasticity and firmness of the skin had markedly improved and the wrinkle depth

and pore sizes had decreased by 60 to 100% in both groups. Skin moisture had increased and the measurement of wrinkles using skin profilometry, revealed significant, or even highly significant, decreases of wrinkle depth in the estradiol and estriol groups, respectively... significant increases of collagen labeling were combined with increased numbers of collagen fibers...No hormonal side effects noted."

Talk to your clinician about whether Dr. Randolph's Estriol Face Cream can help you restore hormone balance for your skin!



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