

Modern Aesthetics®



EMEPELLE FOR ESTROGEN DEFICIENT SKIN: BREAKTHROUGH FOR AN UNMET NEED

Emepelle with MEP Technology® is the only topical product line specifically designed and formulated to address the root cause of Estrogen Deficient Skin (EDS) non-hormonally.

Estrogen has a powerful effect on stimulating collagen at the level of the skin, whereas a loss of normal estrogen levels contributes to common signs of skin aging, including dullness, dryness, and fine lines. Recognizing Estrogen Deficient Skin (EDS) in the clinic, though, is complicated due to the fact that signs are nonspecific—in addition to those mentioned above, other signs of EDS include atrophy, pruritus, and increased texture abnormalities. In skin of color, EDS may include patchy dyspigmentation and texture abnormalities.

Although many of the causes of intrinsic and extrinsic skin aging are widely recognized and understood, the rapid drop in estrogen that occurs in women around the time of menopause has been underappreciated as a causal factor in skin aging. The reduction in estrogen leads to lower elastin and collagen production within the skin's fibroblasts, less connective tissue, lower glycosaminoglycans, and a thinner epidermis, resulting in reduced hydration and compromised barrier function. It is estimated that decreased estrogen levels lead to about a 30 percent loss in collagen in the first five years of menopause and a 2.1 percent loss each year thereafter.

Dr. Cohen: Biopelle's Emepelle is a new category of skincare. This type of topical for EDS hasn't existed until now. The hero ingredient, Methyl Estradiolpropanoate (MEP), is a non-hormonal way to activate specifically skin estrogen receptors. Instead of being a hormone, it is simply an estrogen analog that activates the cutaneous estrogen receptors. It is called a NERA, a Non-hormonal Estrogen Receptor Activator. It is an estrogenic sterol ester. Its effect is totally within the skin, and once absorbed into the bloodstream, studies show it is rapidly deactivated into an inactive metabolite. Since the NERA is specific to the skin, application is shown to thicken the epidermis and stimulate collagen with no off-site activities

I think it's exciting to see that there is a product line that specifically is addressing the ability to turn on estrogen receptors, upregulate estrogen receptors, and improve skin dullness and dryness.

Dr. Downie: Emepelle is a new innovative product line that's not been developed before, that's specifically addressing perimenopausal and menopausal skin.

Dr. Schlessinger: This is something that up until now has not been a treatable condition. Before Emepelle, the only real option was to try supplemental hormones, which can be associated with acne, hair growth, disturbance of mood, and a whole host of other unfortunate side effects.

Dr. Berson: A woman could be doing everything right. She



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could be using antioxidants every day, using appropriate skincare, using daily sun protection, eating a healthy diet, drinking enough water, and she's still not going to look her best because she's missing that one factor after menopause—that estrogen factor.

Dr. Day: One of the things I observe when patients hit a certain age is that they see an almost overnight transformation in their skin. They say things like, "One day, my skin just fell apart." We know that changes are cumulative over time. Patients do hit a threshold where they wake up one day and everything looks and feels different. They look in the mirror, and they identify with a much older relative. And it scares them.

Dr. Downie: Whatever guards they had against aging are just falling rapidly apart; that's when they come in looking for help.

Dr. Schlessinger: There really is no way to specifically pinpoint when skin is estrogen deficient due to hormonal loss versus other factors, but the reality is that nearly 100 percent of women who are menopausal or postmenopausal suffer this condition, so it's relatively a moot point. Estrogen deficient skin is a huge issue for my patient base because the patients who I see are, in general, either perimenopausal or postmenopausal.

Dr. Cohen: Many women in their post-menopausal years don't realize that some skin changes of dryness and laxity are actually due to estrogen deficiency. A paucity of study of EDS led to a lack of awareness, and until recently, a lack of viable treatment options.

Dr. Day: Dryness is a key sign of EDS. Acceleration of the aging process and wrinkling are others. Patients who are peri- or postmenopausal note that skin feels thinner, and they often say it feels crepey. Patients know their skin, so I trust their assessment.

Dr. Downie: I'm very fond of saying that white women, after the age of 40, tend to age with fine lines and wrinkles and textural abnormalities. Black women tend to age with patchy dyspigmentation and textural irregularities. And Latino and Asian women age somewhere in between, depending on where on the color spectrum they are. And then after about the age of 60, everything catches up. So black women start with significant fine lines and wrinkles, and white women start with patchy dyspigmentation. And that's when people are really ramped up, and really angry about their aging, and especially if they haven't done anything preventative in their 40s.

Most patients are not aware of the connection between EDS and their skin issues. I explain to my patients that hormonal changes take place not only in the form of acne breakouts, decreasing collagen, and increasing skin laxity, but unfortunately, can lead also to dull, dry, and lifeless skin. I always see it as my role to educate.

PRODUCT BENEFITS OF EMEPELLE WITH MEP: ADDRESSING AN IMPORTANT UNMET NEED

Tailoring the approach for addressing signs of aging to the individual needs of each patient is a tried-and-true axiom for

cosmetic providers. It is easy to appreciate that there is no one-size-fits-all approach, particularly because of the multifactorial aging process. Many providers are already integrating the Emepelle line into patients' skincare routines, with the understanding that addressing a hormonal influence on signs of aging may provide patients a better chance of achieving the outcomes they desire.

Dr. Schlessinger: I think it is important to know that this is not the only thing that we would recommend, although I have to say that Emepelle is a relatively complete system in many ways, as it has an AM and PM product. The AM product is a lightweight serum that contains hyaluronic acid, peptides, niacinamide, vitamins C and E, ferulic acid, plant extracts, and, of course, MEP Technology. The nighttime product contains retinol, niacinamide, peptides, emollients, humectants, and MEP, so it contains more of a moisturizing type of combination of ingredients and ends up being more restorative in nature. Some people may experience a little bit of dryness or irritation when beginning to use the Night Cream because of the effects of the retinol. It's wise to be careful when introducing retinols into any regimen, and Emepelle is no exception.

Dr. Cohen: Some patients decline topical retinoids because they found it to be too irritating, especially in the winter or in dry climates; Emepelle Night Cream is a really good option for them, because not only will they get a mild retinoid, but they also will get the MEP Technology. And that's where I start educating about the benefits of a retinoid and the benefits of considering a topical estrogen receptor activator and what that combination can do for their skin. Emepelle Night Cream contains 0.1% retinol with 0.05% hydroxypinacolone retinoate (HPR), which seem to work synergistically.

Dr. Berson: I always recommend my patients use an antioxidant product in the morning and a collagen stimulating/repair product at bedtime. Emepelle Serum is hydrating; it provides the antioxidant along with niacinamide and hyaluronic acid in the morning. Therefore, this is a product that can be used alone or layered with products patients have previously used. The serum applies evenly on the skin and is nice and light and does not clog pores. It applies well under sunscreen and makeup.

The night cream contains peptides and emollients, as well as retinol, which is the gold standard to be used to repair the skin overnight. The product can be used alone at night or can be added to whatever products the patient was already using.

OUTCOMES: CLINICAL TRIALS, CLINICAL EXPERIENCE, AND PREVENTATIVE MEASURES

Functionally, MEP is a NERA, an estrogen analog that activates cutaneous estrogen receptors. Its activity is contained entirely in the skin. In one 60-patient safety study published in *Journal*

of *Drugs in Dermatology* by Zoe Draelos, MD, MEP was shown to be deactivated by esterases to an inactive carboxyl molecule, thereby avoiding systemic estrogen side effects. Another 80-patient study also provided evidence of efficacy: there were statistically significant improvements from baseline to week 14 in dryness, laxity, atrophy, and dullness in areas of the face treated with MEP compared to vehicle. Of note, an increase in fibroblast estrogen receptor staining was demonstrated in four of nine subjects in a biopsy sub-study. In a separate, single-center experience trial conducted by Dr. Cohen, 93 percent of study participants responded that the combination of Emepelle Serum and Night Cream regimen helped improve wrinkles, texture, and color, and 86 percent of study participants responded that Emepelle helped improve sun-damage, thickness, and integrity.

Dr. Berson: What I found most impressive in the study by Dr. Draelos were the biopsies showing the re-emergence of estrogen receptors on fibroblasts that had been dormant for years after menopause following application of MEP.

Dr. Cohen: As part of the grading and photo-numeric scale assessment data collected as part of the study conducted at my office, I noticed improvement in roughness and dryness scores compared to baseline. Patients also noted these specific improvements. These improvements were similar to what I would expect after a mild chemical peel or another minimally invasive rejuvenation treatment, such as photodynamic therapy. Interestingly, we did the study during a Colorado winter, when we would expect the skin to lose moisture due to cold temperatures, lack of humidity, and exposure to forced indoor heating. Yet, we still noticed improvement in skin moisture and dryness.

Dr. Downie: Emepelle has helped to improve the appearance of my patients' skin, especially their forehead, cheeks, and lower face, by hydrating the skin very nicely. My patients notice a more even skin tone and a decrease in fine lines and wrinkles with an improvement in overall elasticity. Additionally, I recommend they use Emepelle on the neck as well.

Dr. Schlessinger: The opportunity here is one that is astonishing and remarkably simple. We have had reviews from our customers who have used Emepelle products that range from saying that it was life changing to the best serum and night cream that they have ever used. It is so rewarding to see these individuals who heretofore had no solution for their issues, and now they have a remarkable regimen that seems to provide visible results within one to two weeks. I would also say that, generally speaking, patients who use this should not expect results until approximately 12 weeks of use, so it's more the exception than the rule that people will see results in one to two weeks.

Dr. Cohen: I think that there's been an unmet need in our patient population of women who are perimenopausal. The time to start considering Emepelle is not when somebody is

in menopause, where they're losing 30 percent of their collagen in the first five years. I think the time to start considering Emepelle would really be when people are having perimenopausal symptoms and before they have such a sharp drop-off. Based on some of the studies I have been involved in with Emepelle, there is some evidence that patients who have been in menopause take longer to respond and that younger patients see the benefits more quickly.

Dr. Day: I use the analogy of a bike ride. If you know a big hill is coming, you pedal faster to try to get momentum up the hill.

ADDITIONAL CONSIDERATIONS: INCORPORATING EMEPELLE INTO PRACTICE

DO SKIN BENEFITS OF EMEPELLE DIFFER FROM WHAT YOU CAN ACHIEVE WITH DEVICES OR INJECTABLES? HOW DO YOU INCORPORATE IT INTO PATIENT REGIMENS?

Dr. Schlessinger: MEP Technology is a way of improving estrogen-deficient skin by targeting the receptors that are going to stimulate natural estrogen production non-hormonally. This is something that up until now has not been a treatable condition. This is something that we will look back on and ask ourselves, "Why wasn't this invented sooner?" But it's great that Emepelle is around now, and we're delighted to add it to our patients' regimens. Absolutely it is something we use both as a stand alone program, as well as in conjunction with other cosmetic offerings. Emepelle with MEP is not the only thing we would offer to a patient, but it's also the only really viable option for addressing a component of aging skin that would otherwise go untreated.

WHAT ARE UNIQUE AGING SKIN CONCERNS FOR DIFFERENT FITZPATRICK SKIN TYPES? DOES EMEPELLE PROVIDE BENEFITS ACROSS THE SKIN SPECTRUM?

Dr. Downie: Patients with Fitzpatrick I-III skin types tend to be very concerned about fine lines, deep lines, and wrinkles, whereas patients with Fitzpatrick skin types IV-VI tend to be more worried about sagging, blotches, and hyperpigmentation. But EDS affects patients across all skin types—the reduction in estrogen affects collagen production, which contributes to the skin signs that patients of all skin types are concerned about. While I would encourage more testing in patients with skin of color, I recommend Emepelle with MEP to patients of all skin types.



A 60-year-old woman shown at baseline (left) and at 8 weeks of Emepelle use (right). Photos from clinical trial, courtesy of Joel L. Cohen, MD.

With the aging process, we should do things to help the skin as we anticipate these changes.

Dr. Downie: I tell my patients, you lose a teaspoon of collagen from your face every year from the time you're 30. And if you smoke, you tan, or you do drugs, then it could be even earlier than that. Each teaspoon is equal to five syringes of a filler, which would eventually be prohibitively expensive to inject. So this is yet another thing to do for prevention.

EMEPELLE IN CONJUNCTION WITH PROCEDURES

Injectable fillers can replace lost collagen—to a point, while chemical peels and/or energy-based devices can often improve wrinkles, texture, and tone. However, experts agree that proper skincare before and after procedures will enhance outcomes. Coupled with SPF, good skincare helps maintain procedure results.

Dr. Schlessinger: It is an incomplete and flawed assumption that by simply injecting fillers or neurotoxin, we can change the character and quality of the skin in perimenopausal and postmenopausal women. With Emepelle, we finally have a way to do exactly that. As dermatologists and cosmetic surgeons, it is imperative that we introduce both topical and procedural options for people who suffer from EDS and allow them to understand the role that novel products can provide for a complete regimen.

Dr. Cohen: When used in combination with the other procedures that we do in our office, and the other topicals that we recommend (including sunscreen, etc.), I think this is an exciting time for a new category of topical skincare for Estrogen Deficient Skin. We need to be able to emphasize the role for procedures to target specific needs and the role of a product line like Emepelle for maintenance.

But these concerns and conversations come from a good consultation for our patients asking about cosmetic options—really asking what is bothering them about their skin. In my practice, after we discuss the role of sunscreen use, we get into the various options. For those considering a procedure, such as laser resur-

facing—whether that is ablative laser resurfacing, fractional non-ablative laser resurfacing, or even bipolar fractional microneedling RF—then I know I will want to try and activate some of the lethargic and fatigued fibroblasts. In that case, I may recommend something like Biopelle Tensage Daily Serum with hyaluronic acid for use during the day; sunscreen can be layered over it. For patients not considering a procedure or series of procedures, we are discussing overall skin maintenance and certainly talk about the Emepelle line.

Dr. Berson: Many of my patients are happy using the Emepelle line alone along with sunscreen. I found other patients have incorporated Emepelle into their pre-existing skincare regimen and have noticed the added benefit of skin that is more radiant, smooth, soft, and with fewer wrinkles.

I like to use the Emepelle products in conjunction with any in-office procedures, including injectables, lasers, or peels.

This age group represents the population for whom I tend to provide many in-office procedures, and I find that adding in a skincare routine will only enhance the clinical benefits and their positive outcome.

Dr. Downie: Emepelle is the first serum and moisturizer for EDS. It really hydrates quite well and helps to decrease dryness and improve the luminosity of the skin. In my practice, I use it as a stand-alone moisturizer or as a hydrator along with other skincare. I let my patients who are acne prone know that, while Emepelle Serum is oil free and will not clog pores, Emepelle Night Cream is not oil free. Most use it anyway and I have seen no breakouts as a result. I also use Emepelle in combination with chemical peels, filler, neuromodulators, and lasers—and there may be an unexpected benefit in this kind of combination approach. Because Emepelle helps with skin hydration, I am noticing that skin rebounds faster after chemical peels and laser procedures.

My patients understand that a good skincare regimen also includes use of an SPF 30 every day, rain or shine, January through December, regardless of ethnicity. The sunscreens that I recommend all must be reapplied two to three times a day for proper protection. Emepelle works much better with constant SPF use.

Dr. Day: There are a lot of preventative measures we can use when patients are younger, like sun protection and even treatment with devices or discrete use of dermal filler injections and neuromodulators. Returning to the bike analogy, at some point patients will experience hormonal changes and the accumulation of early lifestyle decisions. A product like Emepelle helps keep them from “hitting a wall” and helps maintain more youthful-appearing skin.

I recommend Emepelle along with other treatments. It is a great adjunct to many of the the procedures I offer to help patients age gracefully and looking their best. ■