

# Using Olivamine in a Skin Cream to Improve Skin Quality in Diabetic Patients


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Study # LIT597

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## PROBLEM

Our diabetic population presents with skin issues often resulting in skin injury and increased costs. Autonomic neuropathy causes a decrease in the sweat and oil production resulting in xerosis. Our goal was to decrease these issues and costs of secondary injuries, and improve quality of life for our patients.

## METHODOLOGY

50 patients were selected to participate in a skin care product trial. Criteria for inclusion was a diagnosis of diabetes, high risk for skin breakdown, and characteristics of xerosis defined as abnormally dry skin with fine lines, scaling, and fissures. Untreated xerosis may lead to itching & scratching, pain, and cellulitis. Excluded were confused or non-verbal patients. Skin cream containing Olivamine\* was applied daily to the patients' legs, and feet, after cleansing, for a period of 4 weeks. Skin was evaluated weekly for integrity. Pain was documented using a 0-10 pain scale. Patients were queried regarding itchiness.

## OUTCOMES

Olivamine\* delivers amino acids, antioxidants (hydroxytyrosol), vitamins, and methylsulfamethane to the skin. Transepidermal water loss (TEWL) is preserved with dimethicone base preventing damage from dehydration and decreasing pruritis.

## CONCLUSIONS

A program of cleansing, moisturizing, and protecting the skin with the Olivamine\* containing product improved skin outcomes including skin integrity, prevention of breakdown of fragile skin, and decreased pain and itching for patients.

## CASE STUDY

### CM

This 91 year old female has had type 2 diabetes for over 20 years. She presents with xerosis, fine lines, scaling, and pain in her legs which is increased at night. She describes the pain as "deep pain" and scores it as a number "8" on the scale of 0-10 (Figure 1a). Since daily application of the Olivamine\* containing product, she has had no xerosis, fine lines and scaling have decreased, and her skin appears much healthier. She states that the pain resolves completely for several hours after application of the product (Figure 1b).



### PM

This 63 year old female has had type 2 diabetes for approximately 5 years. She also has troublesome venous stasis disease and has an ongoing battle with severe xerosis, scaling, and cracking of skin (Figure 2a). She has little sensation in her legs, so pain has not been a major problem. However, since she is using the Olivamine\* product daily, she states that she has "less of a pulling sensation" on her legs. Daily cleansing, moisturizing and protecting the skin with the Olivamine\* containing product has greatly improved the general condition of her skin (Figure 2b).



### RM

This 46 year old male has type 2 diabetes for over 10 years. He has had multiple toe amputations and additional foot surgeries due to osteomyelitis. He presents with a recent surgical incision from amputation of a metatarsal head and is presently under treatment with a podiatrist and WOCN. He has experienced xerosis, scaling and cracking of skin, and itching (Figures 3a and 3b). He has noticed marked improvement of his symptoms with daily application of the

Olivamine\* product (Figure 3c). He was proud to show the "treated" leg in comparison with the "untreated" leg. It was his idea to conduct a comparison trial using the product on one leg and not on the other leg (Figure 3d).



Assessed Criteria	Patients meeting Criteria	Improved after 4 weeks
XEROSIS	47	47 (100%)
FINE LINES	50	50 (100%)
SCALING OF SKIN	40	40 (100%)
ITCHING	26	22 (84.6%)
PAIN	4	4 (100%)

## CONCLUSION

All participants in the study exhibited improvement of the initial xerosis, fine lines, and scaling of skin while 84.6% of those who identified initial itching, experienced decreased itching following daily application of the Olivamine product. The participants stated that they noticed immediate results and stated how good the skin felt with application of the product. Upon assessment, the skin integrity appeared to be much improved and no patient in the study had further skin breakdown or infection. Patients experiencing neuropathic pain, of which there were only 4 in the study, all experienced pain reduction of **at least** 3-4 points on the 0-10 pain scale after application of the Olivamine product.

The small number of participants with pain as a major concern is probably due to the number of patients with diabetes and their sensory neuropathy. Many of those with sensory neuropathy have either masked pain or are insensate. There are obvious limitations to the effect of any product regarding pain in this study.

These results demonstrate that a program of cleansing, moisturizing, and protecting the skin with the Olivamine\* containing product improved skin outcomes including skin integrity, prevention of breakdown of fragile skin, and decreased pain and itching for patients. The quality of life issues are evident by the number of participants that inquired about purchasing the product for continued use due to their satisfaction of the product's results.

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\*Remedy Skin Repair Cream with Olivamine from Medline Industries, Inc. Mundelein, IL. Remedy is a registered trademark of Medline Industries.