NU SKIN
THE DIFFERENCE. DEMONSTRATED.™

ageLOC® BODY
USAGE CLINICAL BULLETIN

Summarised from a third-party professional assessment performed according to Good Clinical Practices and the Standard Operating Procedures of the Organisation.

INTRODUCTION

While most individuals focus on the appearance of facial skin as evidence of an ageing appearance, the skin on the body can also make individuals appear older than they are. The unsightly appearance of fat and cellulite contributes to an older perceived age.

The etiology of cellulite is complex, multifactorial and not completely understood. Many attempts have been made to define cellulite – often incorrectly – with no adequate explanation. Cellulite is a term used to describe a visible, physical change seen frequently in women and only rarely in men. The characteristic appearance is one of an undulating skin surface associated with increased fatty deposits. About 80-90% of women either have or will have cellulite.

An understanding of cellulite requires an appreciation of the physiology of adipose and connective tissues. The development of cellulite is a complex condition involving a regional distribution of fatty tissue.

One cause of cellulite is the reduction of capillary blood flow. Decreased circulation slows down lipid metabolism and tends to increase interstitial fluid, highlighting the appearance of the cellulite by aggravating fatty mass, creating a dimpling effect.

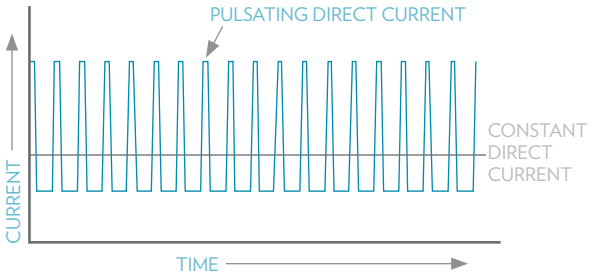
Cellulite is essentially a migration of part of the superficial and deep fat into the dermis. Another underlying cause of cellulite is weakened connective tissue. The fascia, weakened by collagenase (an enzyme that breaks down collagen), can no longer structurally contain the fat mass, so it eventually pushes upward toward the skin surface, producing a wavy surface. As the space expands in the fatty layer due to movement of the fat mass, the remaining fat cells enlarge to maximum capacity. Fat cells produce oestrogen, which stimulates the fibroblast to produce more collagenase, thus setting up a detrimental cycle.

Not only is it complex, but the appearance of fat and cellulite is a difficult cosmetic target. Thus, pairing the topical application with technology that assists with delivery to the skin can increase the impact on skin appearance. Additionally, carefully screening ingredients to identify those that target both the signs and sources of an ageing appearance could increase the overall effectiveness of the finished products. The following study evaluates the effectiveness of a system of products created to decrease the appearance of fat and cellulite that can contribute to an aged appearance.

GALVANIC TECHNOLOGY

Assisting with the delivery of product to the skin is advantageous when addressing difficult-to-treat cosmetic targets such as cellulite. Galvanic currents have long been used to assist with the delivery of key ingredients within properly formulated cosmetic products.[1] For improved cosmetic benefits, these currents can be provided in the traditional constant format or, more recently, in pulsating form to areas on the body that are most susceptible to fat and cellulite.

Figure 1. Pulsating vs. Constant Direct Current



A constant galvanic current sets to a predetermined current level and remains throughout the treatment cycle, whereas a pulsating galvanic current oscillates or pulses between two current levels within the same polarity. See Figure 1. A pulsating galvanic current does not further enhance delivery of like-charged ingredients over a direct galvanic current of the same root mean square. However, Nu Skin® patent pending studies have shown that a pulsating current acts as physical vibration – although not felt by the user – that can set in motion a chain of events that has specific benefits to areas of thicker skin such as the skin on thigh or abdomen.

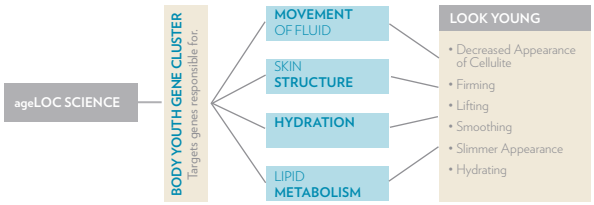
Physical vibrations cause physical stimulus to the endothelium, which induces the production of nitric oxide (NO). NO induces vasodilatation, resulting in improved blood flow and movement of fluids.[2-6] Enhanced movement of fluids allows for more nutrients to be delivered and stimulates the efficient removal of waste from skin cells.

Thus formulating the topical products to be compatible with application of galvanic currents can improve the cosmetic results perceived by the consumer.[7]

AGELOC SCIENCE APPROACH

Nu Skin®'s ageLOC® approach to personal care identifies and targets Youth Gene Clusters (YGC) (see Figure 2) with a dual approach that uses gene research and clinical results to identify the ultimate sources of ageing while ensuring visual results with clinical evaluations.

Figure 2. Body Youth Gene Cluster



NOTE:
Appearance of cellulite = Depth extent, surface texture

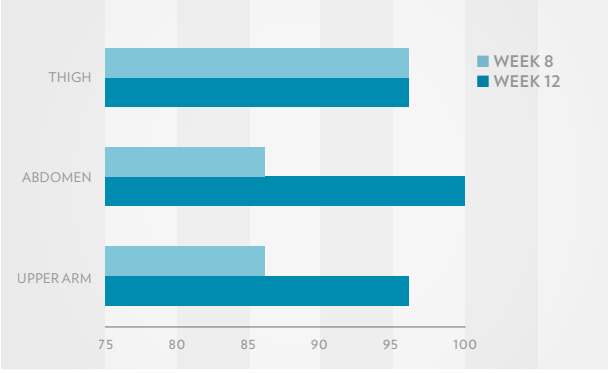
CLINICAL RESULTS

Nu Skin® contracted a clinical study with an independent clinical research organisation to study the ageLOC® Body products on 30 people – ageLOC® Galvanic Body Spa, ageLOC® Body Shaping Gel and ageLOC® Dermatic Effects – on the upper arm, upper thigh-buttocks and lower abdominal regions as recommended. ageLOC® Dermatic Effects was used twice daily while the ageLOC® Galvanic Body Spa and ageLOC® Body Shaping Gel were used three times per week for five minutes per assigned area. The 12-week research included clinical grading, subject self-assessment, instrumentation (where applicable), and digital photography with assessments being taken at baseline and weeks one, four, eight and 12.

Considering the difficulty in making marked short-term gains when targeting these areas with topical products, it was of note that limited improvements were seen at weeks one and four.

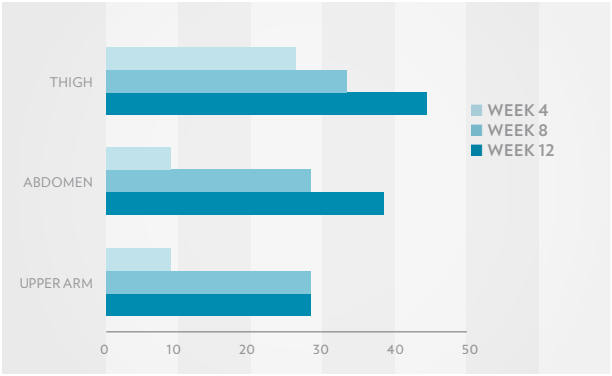
However, at week eight, dermatological grading found that 86% of the subjects showed notable improvements in skin smoothness in the arms and abdominal areas and 96% in the thigh-buttocks area. The percentage of subjects showing improvement in the abdomen increased to 100% at week 12. See Figure 3.

Figure 3. Per cent of Individuals with Graded Improvements in Skin Smoothness



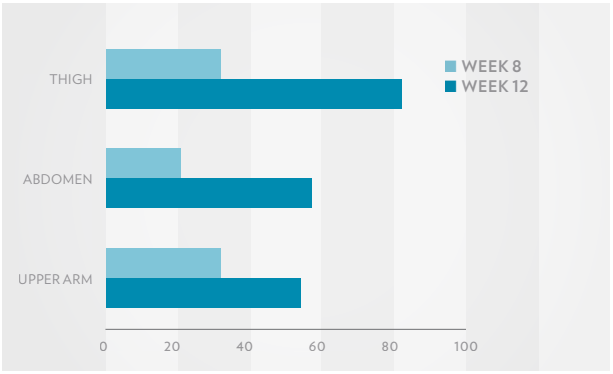
Not only was the per cent of individuals showing graded improvements in skin smoothness impressive, but by week 12, a dermatologist found a 28% improvement on the upper arm, a 38% improvement in the abdomen and a 44% improvement in the thigh-buttocks area over the initial clinically-graded baseline measurement. See Figure 4.

Figure 4. Per cent Graded Improvement in Skin Smoothness over Baseline



Skin firmness was also observed during dermatological grading in each target area. At week eight, 21% of participants had firmness improvements in the abdominal area and 32% on the upper arms and thighs. These percentages increased to 57% in the abdominal area, 54% on the upper arms and 82% on the thighs at 12 weeks. See Figure 5.

Figure 5. Per cent of Subjects with Graded Improvements in Firmness



The overall appearance of subjects was also graded by a dermatologist. By week 12, 69% of subjects showed graded improvements in the thigh-buttocks area, 80% in the abdominal area and 89% on the upper arm. See Figure 6.

Figure 6. Per cent of Subjects with Graded Improvements in Overall Appearance

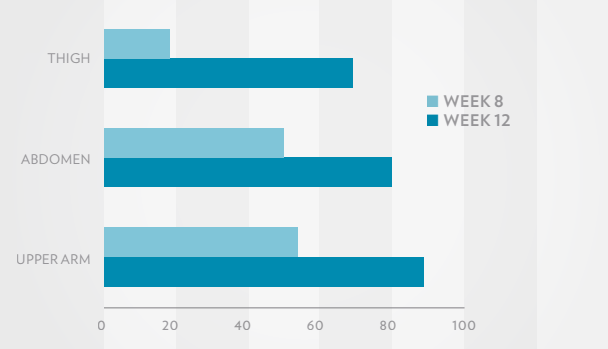


Figure 7. Statistically Significant Graded Improvements Seen Weeks Eight and 12 (white boxes) and Week 12 (blue boxes).

UPPER ARM	ABDOMEN	THIGH
SMOOTHING	SMOOTHING	**SMOOTHING**
LIFTING	**LIFTING**	LIFTING
OVERALL APPEARANCE	**OVERALL APPEARANCE**	**OVERALL APPEARANCE**

Additionally, statistically significant graded improvements were also seen at each target area for skin smoothing, lifting and overall appearance at week 12 and in some cases earlier at week eight. See Figure 7.

The grading dermatologist observed improvements in skin smoothing, lifting and overall appearance of fat and cellulite.

CONCLUSION

When used as a system, ageLOC® Body Shaping Gel used three times per week, along with ageLOC® Galvanic Body Spa and ageLOC® Dermatic Effects used twice daily, can have a positive impact on the appearance of fat and cellulite in the upper arm, lower abdomen and thigh-buttocks area starting at week eight and improving through week 12.

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7. The Effects of Tru Face Line Corrector Usage with the Galvanic Spa II Instruments on Improving the Appearance of Fine Lines/Wrinkles and Tautness. Nu Skin Enterprises. 2008; Retrieved from https://www.nuskin.com/content/dam/global/library/pdf/galvanic_tflc_clinical.pdf