# YOUTH COMPLEX® STUDY

before and after study

## SKIN IMPROVEMENT WITH CLINICAL PHOTOS

STUDY OBJECTIVE The clinical improvements in skin produced by YOUTH COMPLEX® were evaluated via a number of parameters associated with youthful skin.

STUDY DESIGN 24 subjects, ages 45-60 years were evaluated in the study. 75 percent of the subjects were female and 25 percent were male. One week prior to study onset, subjects discontinued use of any moisturizer or other cosmetic products. Product was applied to the face twice daily. Written subject assessments at 1 hour, 4 hours, 4 weeks, and 8 weeks were performed. Assessment of 4 parameters was completed -- fine lines and wrinkles, smoothness/firmness, hydration/moisture, and overall skin texture.

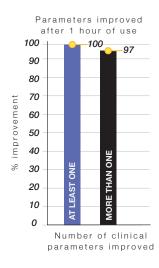
SIGNIFICANCE OF STUDY The parameters listed above in Study Design are associated with a youthful appearance. Maintaining a youthful appearance, although sometimes criticized as "merely cosmetic", actually requires maintaining skin health, as evidenced in these parameters listed. Health maintenance is frequently seen as a more worthwhile goal than simply "beauty maintenance", although they are often biochemically equivalent.

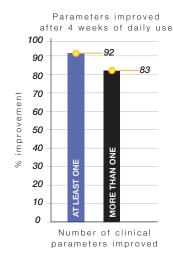
### **RESULTS AND CONCLUSIONS**

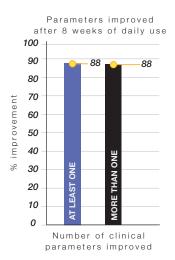
1-HOUR RESULTS - number of subjects (25 subjects at initial	phase)
Improvement in at least 1 of 4 parameters Improvement in more than 1 of 4 parameters	25 24
4-WEEK RESULTS – number of subjects (24 subjects)	
Improvement in at least 1 of 4 parameters	22
Improvement in more than 1 of 4 parameters	20
8-WEEK RESULTS – number of subjects (24 subjects)	
Improvement in at least 1 of 4 parameters	21
Improvement in more than 1 of 4 parameters	21

Number of subjects showing improvement 1 hour after application 97%

The overall improvement noted by 24 subjects on 4 parameters of skin appearance was extremely high. 97% of subjects noted significant improvement in 1 hour. These results were clearly noticed within 4 weeks of use and were maintained throughout the study length of 8 weeks. 50 percent noticed an improvement in all 4 skin parameters at both 4 weeks and 8 weeks. 92 percent and 88 percent respectively noticed an improvement in at least 1 of the 4 parameters at 4 and 8 weeks. 83 percent and 88 percent noticed an improvement in more than 1 of the 4 parameters at 4 and 8 weeks.









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## SKIN IMPROVEMENT

### IMMEDIATE IMPROVEMENT - RAPIDLY REDUCES WRINKLES

Immediate wrinkle reduction occurs within HOURS through a sophisticated mechanism of bionutrients and innovative natural hydrators within iNNOVASE®. The powerful natural acids in iNNOVASE® ensure the rapid delivery of ingredients through the stratum corneum to their site of action. As hyaluronic microspheres are absorbed into the epidermis, they attract and hold water that is normally lost by the skin (TEWL - trans-epidermal water loss), thus conserving moisture within the skin. As these elements absorb the water, they expand like tiny sponges filling in wrinkles with moisture.

Dramatic improvement in deep brow wrinkles. Before After 4 hours





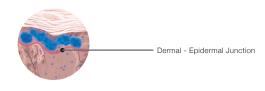
Hyaluronic microspheres in iNNOVASE® penetrate and nestle in the wrinkle.

Hyaluronic microspheres absorb moisture and expand, filling in the wrinkle.

### INTERMEDIATE IMPROVEMENT - SMOOTHES AND FIRMS THE SKIN

Within DAYS, the intermediate results of smoother and firmer skin are apparent, noted by the continued reduction of fine lines and wrinkles. The synergistic blend of amino acids in iNNOVASE® work to reinforce the dermal-epidermal junction (the connection between the dermis and epidermis), while improving cellular integrity. In addition, the antioxidant-rich botanical acids exfoliate the skin and remove impurities, creating a smoother and firmer appearance. As the formula's effects accelerate, new benefits build upon initial improvements, facilitating long-term results.



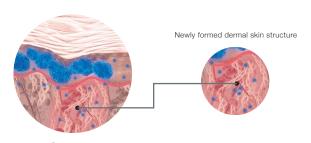


iNNOVASE® bionutrients strengthen the dermal-epidermal junction. Botanical acids promote controlled exfoliation, smoothing skin's surface.

### LONG-TERM IMPROVEMENT - CONTINUOUSLY REPAIRS AND REBUILDS

Long-term benefits are noticeable after WEEKS of continued use. The combination of the copper tripeptide growth factor and healing antioxidants in iNNOVASE® repairs and rebuilds the dermal skin structure, maintaining skin's youthful appearance. iNNOVASE® enables the synthesis of new support proteins, such as collagen and elastin, prevents DNA damage and optimizes cellular metabolism. Continuous use results in the further reduction of fine lines and wrinkles and helps to prevent new wrinkle formation.





iNNOVASE®'s proprietary copper tripeptide growth factor combines with healing antioxidants to rebuild dermal structure.

INNOVATIVE SKINCARE®

i S CLINICAL.com 818.638.8758 818.638.8768 FAX www.iSCLINICAL.com



# YOUTH COMPLEX® STUDY

fibroblast induction study

# IMPROVEMENT IN COLLAGEN SYNTHESIS

STUDY OBJECTIVE The ability of YOUTH COMPLEX® to induce collagen synthesis by human fibroblasts was evaluated.

STUDY DESIGN Careful scientific methods were used including controls. Conclusions were obtained by valid statistical analysis. Human fibroblasts were used and were exposed to various concentrations of the product varying between 0.06 percent and 2 percent to determine if YOUTH COMPLEX® caused fibroblasts to synthesize collagen.

SIGNIFICANCE OF STUDY Collagen is a primary structural component of the human dermis. It is responsible for resilience and elasticity of the skin. Fibroblasts are cells within the skin responsible for producing collagen. Collagen synthesis occurs throughout life to repair collagen damaged by aging and to build new, healthy cellular structures. With aging, collagen synthesis becomes impaired both by primary photodamage of existing collagen ultrastructure and secondary damage to the fibroblasts' ability to produce new healthy collagen. This causes wrinkling and sagging. With aging, the collagen content of the skin decreases about 1 percent per year. By the age of 60, we make less than half of the functional collagen than we made in youth. Therefore, products that improve collagen synthesis are of great interest in improving skin health and appearance.

#### **RESULTS AND CONCLUSIONS**

YOUTH COMPLEX® significantly improved the ability of human fibroblasts to synthesize collagen.

