

# DERMASCOPE

The Encyclopedia of Aesthetics

## VITAMIN A FIGHTS WRINKLES

by Simon Pitman

A new study confirms that vitamin A can help to improve wrinkles associated with aging as well as promote the production of skin-building compounds, suggesting it could become an increasingly important ingredient in natural-based and cosmeceutical anti-aging lines.

According to a new report published in the May edition of the *Archive of Dermatology* journal, skin that has been exposed to the sun ages much more dramatically, causing it to wrinkle and thin - ultimately leading to a less youthful appearance. The research team that carried out the study, based at the University of Michigan Medical, chose to base its work around the upper arm area for a group of elderly people with an average age of 87. The upper inner arm area was chosen because it usually receives low to medium levels of skin exposure over a lifetime. It is also a good area to assess for signs of aging because it has a relatively large mass and is not prone to wrinkling through expression.

Researchers applied a lotion of a 0.4 percent vitamin A-based retinol to one upper arm of each participant and a placebo cream to the other over a period of 24 weeks. Both at the start and the end of the experiments, biopsy samples were taken to assess the treatment, which was carried out on a total of 23 individuals. The biopsies revealed that the retinol increased the production of glycosaminoglycan and procollagen - both integral structural components of the skin. "Topical retinol improves fine wrinkles associated with natural aging," the authors stated in their report. "Significant induction of glycosaminoglycan, which is known to retain substantial water, and increased collagen production are most likely responsible for wrinkle effacement [reduction]."

"With greater skin matrix synthesis [production of compounds that form skin], retinol-treated aged skin is more likely to withstand skin injury and ulcer formation along with improved appearance," the report concluded.

