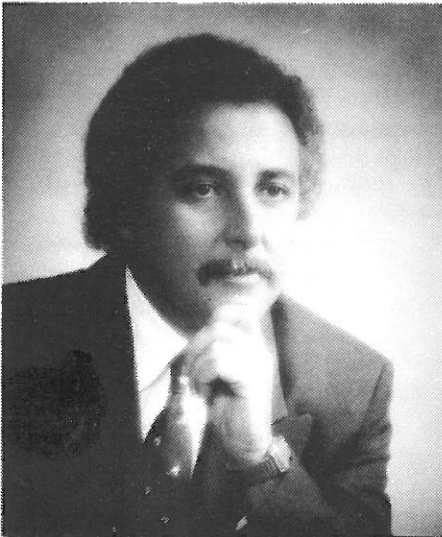


# **COSMETICS: FACT OR FICTION**

*by Hilton Becker, M.D.*



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*“What degree of absorption is there when a face cream is left on the face for 12 hours? Or suntan lotion applied to the entire body?”*

**C**osmetics have traditionally received little attention because it has been wrongly assumed that such products do not really affect our health and safety.

The skin was believed to be a nearly perfect barrier that prevented chemicals applied to it from penetrating into the body. This belief went unchallenged until the 1960's when studies on DMSO showed that substances are able to penetrate through the skin into the body's tissues and blood stream. Indeed,

an increasingly popular way to deliver drugs is “transdermally”. For example, nitroglycerin, used to prevent angina, is placed on adhesive discs for delivery through the skin.

It has now been accepted that all chemicals penetrate the skin to some extent and many in significant amounts. Interestingly, smaller sized substances, as most of the potentially harmful chemicals are, penetrate the skin more easily. The larger molecules, such as

collagen, elastin, and proteins, which cosmetic companies claim have a beneficial effect on the skin, are *not* able to penetrate it. The only way to get collagen into the skin is by injection. Even if collagen is injected into the skin, it is broken down and reabsorbed.

What degree of absorption is there when a face cream is left on the face for 12 hours? Or suntan lotion applied to the entire body? What is the effect over a number of years? No one knows.