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# Heart to Heart Talk

With Philip S. Chua, M.D.

## Wrinkles: Any Remedy?

### What are wrinkles?

Also known as rhytides, wrinkles are folds or creases in the skin, resulting from loss of elasticity and skin turgor associated with aging and with years of daily exposure to the ultraviolet rays of the sun. Another factor is lack of skin care and insufficient moisture for the skin, especially of the face and neck. Fine wrinkles are those that are 1 mm in width and depth, and coarse wrinkles are those that are greater.

### What is skin photodamage?

Skin photodamage is a spectrum of changes in the skin caused by chronic exposure to the ultraviolet rays of the sun. They include hyperpigmentation, teleangiectasia, wrinkles and tactile roughness. The prevalence of skin disorders that are linked to ultraviolet light exposure goes up with age and the changes develop over several decades. In one Australian study on 1539 subjects, aged 20-55, who resided in Queensland, found moderate to severe photoaging in 72% of men and 47% of women younger than 30. In the USA and Europe, its about 80-90%. Wrinkles were seen to be more common among persons with white skin, and only a few among black skin.

### Does smoking cause wrinkles?

Yes, cigarette smoking is an important factor that contributes to the development of wrinkles, especially on the face. Smoking hastens facial wrinkle formation even among the young and also speeds up the aging process. The other extrinsic factor is exposure to ultraviolet rays. The intrinsic factors are: hormonal status, aging, and inter-current diseases.

### What do these factors do?

The etiologic factors listed above contribute to the thinning of the epidermis (outer layer of the skin), fragility of the skin, loss of elasticity, and formation of creases and lines, wrinkles. Facial wrinkles in men and women are more common

among smokers compared to non-smokers. Among postmenopausal women, the fall in the estrogen level contributes to the development of, and increase in, wrinkles.

## **Are sunscreens and vitamins C & E useful in preventing wrinkles?**

There is no evidence that sunscreens and Vitamins C and E (in pills or creams, or in any form) are effective in preventing or minimizing skin wrinkles. The same is true with the so-called antioxidant skin lotion or potion. The infomercials and marketing gimmicks claiming these products can prevent, reduce or eliminate skin wrinkles are misinformation, aimed at victimizing the unsuspecting consumers for a buck.

## **How about CO2 laser?**

Carbon Dioxide laser has been found to be of little benefit in removing or lessening facial wrinkles in 6 months compared to chemical peel, which is a bit superior, according to one small randomized clinical trial. Erythema (excessive redness) is noted to be equal in both regimen. It has also been found that there is no difference in perioral (around the mouth) wrinkles between CO2 laser treatment and dermabrasion. There was more erythema with CO2 laser.

## **Are cartilage preparations beneficial?**

There is no convincing evidence that oral preparation of cartilage polysaccharide was truly effective in reducing wrinkles, although some manufacturers claim that their product does. One study shows the topical (cream) form was beneficial in reducing fine wrinkles at 120 days. The final word on the anti-wrinkle properties of cartilage polysaccharide has not been said yet.

## **Is Tretinoin effective for wrinkles?**

Under the supervision of a physician, the use of topical Tretinoin for 6 months has been found to be efficacious in significantly reducing fine wrinkles, but not coarse wrinkles. Usual short term complications include burning, itching and erythema. Skin feeling occurs in all users and this peaks at 12-16 weeks. The idea is to replace the old skin with the “new” skin.

## **Any remedy for coarse wrinkles?**

Isotretinoin has been found in two randomized trial to be effective in improving both coarse and fine wrinkles in 36 weeks among those with mild to

moderate photodamage. The downside is the severe facial irritation that happens as a complication in about 5-10% of individuals on isotretinoin.

## **How safe are these medications?**

Tretinoin and isotretinoin, and other drugs, have been used by dermatologists and plastic surgeons extensively and, under their supervision, these medications have apparently been safe. We strongly recommend that these, and other “anti-wrinkle” medications, be used only under a physician’s guidance.

## **Are facial moisturizers beneficial?**

The skin on our face needs adequate moisture to stay healthy, just like any skin in our body. While facial moisturizers do not remove wrinkles, they can delay wrinkle formation by keeping our skin healthier and a bit more resistant to damages caused by dry and neglected skin. Even the skin turgor appears to be better among those who use facial moisturizers. A well “hydrated” skin makes for a more youthful-looking face. And this includes men also. Today’s men use after-shave skin lotion and facial moisturizers a lot, which improve their look too.

## **How useful is microdermabrasion?**

Microdermabrasion, under trained hands, could make an older person have a younger-looking facial complexion. This all depends on the condition of the original facial skin, the types of wrinkles, other photodamages present, and other medical factors. (For more information on microdermabrasion, please refer to our column on this subject published about two years ago).

## **Does the sun really make the skin age faster?**

Yes, constant exposure to the sun makes the skin age prematurely, especially on the face. This is called dermatoheliosis or extrinsic aging. The skin changes may appear like those seen among patients after undergoing radiation therapy for cancer for a period of time. This condition is seen more commonly among North American and European people who love to bathe in the sun. Asian women have been noted to have younger-looking skin because they use umbrellas and hats a lot to protect their face from the direct sunlight, even on the beaches. And they are really the wiser and the healthier for that, because this practice also reduces the incidence of ultraviolet-induced skin cancers among Asian women compared to their American and European counterpart.