

Face yoga: Preventive aesthetic dermatology

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Editorial

Skin aging is a complex process influenced by endogenous (genetics, cellular metabolism, hormone and metabolic processes) and exogenous (chronic light exposure, pollution, ionizing radiation, chemicals, toxins) factors [1]. Three primary structural components of the dermis: collagen, elastin and glycosaminoglycans (GAGs) are decreased and/or abnormal in aging skin [2]. Majority of the anti-aging strategies are centered on modulating these three components [3]. There is an increasing trend for botox, fillers and various other techniques such as anti-aging and anti-wrinkle modalities. People around the world spend millions every year to get a young and flawless face. A new trend has recently set in, known as face yoga. Patients visiting dermatology and aesthetic clinics frequently ask for the prospects of this technique singularly or in combination with existing anti-aging strategies.

There is no scientific literature explaining the exact technique and efficacy of face yoga. Although not much of science exists around it as compared to techniques like botox and fillers, it is well established fact that muscular activity does increase production of collagen and elastin. Since facial aging is associated volume loss of fat and muscle mass, facial exercise/face yoga can presumably improve facial skin appearance by inducing underlying muscle growth. The bio-molecular effects of yoga on skin have been documented by several studies [4-7]. Yoga exercise improves the antioxidant status by modulating the expression of relevant genes like glutathione peroxidase, catalase and superoxide dismutase [4]. In addition, the expression of stress response genes like hsp70 is also increased. Thus face yoga helps in generating better stress response and minimal cellular damage. The increased expression of *COX-2* and *BCL-2* genes prolongs the lifespan of PBMCs generating a better immune functioning [4]. A decreased inflammatory response among yoga practitioners is indicated by decreased expression of inflammatory markers like TNF- α and IL-6 [7]. The metabolic functioning of the cells also gets improved as indicated by the improved biochemical and hematological profile including the lipid levels and advanced glycosylation end products (AGE) [8,9]. AGE has been associated with tissue aging. With stretching and various mouth opening exercises there is a mechanical stimulation of tissue leading to increased utilization and metabolism of glucose in cells resulting in decreased AGE products. Yoga also has a positive influence on hypothalamic-pituitary-adrenal axis leading to decreased stress which helps reduce frowning and wrinkles.

The fate of face yoga as a preventive aesthetic modality is yet to be determined. Researchers across the globe are exploring its utility in the main stream aesthetics. The facial exercises

needs to be standardized and duration of these exercises to see the positive results needs to be studied. More studies are also warranted to understand the effects of face yoga as a singular modality as well as in combination with the existing anti-aging strategies. Till the fountain of youth is found, there seems no harm in exploring this at-home face yoga.

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