















Melatonin has been shown to have a favorable influence on the aging process, because it has an inverse effect with regard to body weight; food restriction raises the levels of melatonin and decreases its age-related decrease. With increasing age comes a decrease of melatonin production, which may have a connection to sleep disorders suffered by elderly people. It also has been shown that melatonin can prevent tumor development and growth. Interestingly, a study showed that patients with tumors had decreased levels of melatonin compared with healthy individuals.<sup>204-207</sup>

HRT with testosterone is absolutely indicated in older men who are either symptomatic or have a low serum testosterone level. Either a decrease of testosterone or a loss of the circadian rhythm of testosterone secretion has been observed in a high percentage of older men. Clinical symptoms include general weakness, sexual dysfunction, diminished muscle and bone mass, and decreased erythropoiesis. A low testosterone level has been shown in epidemiological studies to lead to a higher morbidity and mortality rate and to a higher prevalence of depression, coronary heart disease, and osteoporosis. Insulin resistance has been shown to play an important role in the development of hypogonadism in older men. Thus, obese men and men with type 2 diabetes, show significantly lower testosterone levels compared with subjects in control groups.<sup>199</sup>

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## Conclusions

While natural aging is genetically determined, extrinsic aging can be prevented. Aesthetic dermatology should contribute to "healthy aging" not only in cosmetic means by trying to erase time vestiges in skin but by also playing a significant part in prevention, regeneration, and delaying of skin aging combining knowledge of possible local and systemic therapy, instrumental devices and invasive procedures, filling the lack of scientific investigations and becoming one of the important focuses of the aging research.

## Disclosure of Potential Conflicts of Interest

No potential conflicts of interest were disclosed.

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