

Sexual Life, Skin & Hair – effects of oestrogen deficiency – Beyond Hot Flashes

Apart from the classical vasomotor and other menopausal symptoms skin and hair changes also affect quality of life for the post-menopausal woman.

Dry skin affects up to 72% of women post menopause.

Wrinkles and sagging, especially on the face contribute to an increased perception of aging and decreased attractiveness.

Skin dryness may be noticed in early perimenopause but may initially be compensated by sebaceous gland hypertrophy.

Skin atrophy due to collagen loss is more pronounced in post-menopausal women.

In early menopause, skin collagen decreases fairly rapidly with a collagen reduction of approximately 30% in the first 5 years.

Other problems include diffuse effluvium (this happens when more hair than usual moves into the resting -telogen phase leading to increased shedding) due to follicular rarefication as well as androgenic alopecia or female balding which may be observed later in the menopause.

Apart from this increased hair growth in certain areas of the face may also develop.

Oestrogen receptors are abundant in the dermis and epidermis with maximum density in the genitalia, face and lower limbs.

Oestrogen deficiency alters certain skin functions as well as impaired skin barrier function causing skin dryness from diminished skin moisture and decreased sebum production. Decrease in collagen and elasticity are related to oestrogen deficiency. Decrease in the glycosaminoglycans in the extracellular matrix affects thermal regulation.

The anagen phase of the hair cycle (the **active growth stage** of hair, during which hair follicles produce new hair cells that push the hair shaft upwards. This phase can last anywhere from 2 to 7 years, with hair growing about half an inch per month. At any given time, approximately 85-90% of the hair on a healthy scalp is in the anagen phase) is prolonged by oestrogen which enhances hair growth by increasing the synthesis of essential growth factors stimulating the proliferation of follicular keratinocytes.

Vulval skin dryness, vaginal dryness, vaginal irritation and itching may be followed by decreased elasticity, dyspareunia, urinary urgency, dysuria and recurrent urinary infections. These usually deteriorate with time from the menopause transition and are termed genitourinary symptoms of menopause (GSM).

Menopause hormone therapy (MHT) is not indicated for the sole purpose of skin disorders but do have a beneficial effect on GSM especially when given topically.

Oestrogen improves skin surface, texture, hydration and the collagen content of the dermis along with viscoelasticity. However the effect on wrinkles are less clear; in some studies a benefit has been observed after MHT while others do not demonstrate any effect.

The loss of oestrogen and androgen levels after menopause is associated with low sexual desire which is the most common sexual problem in women in mid-life but this does NOT represent sexual dysfunction per se.

It is necessary to evaluate the presence of sexual distress in order to diagnose hypoactive sexual desire disorder (HSDD) which is characterised by persistently low or absent desire that causes significant distress ([ISSWSH - Mayo Clinic Proceedings - Hypoactive Sexual Desire Disorder \(HSDD\) ISSWSH Expert Consensus Panel Review](#))

Low sexual desire affects about 70% of postmenopausal women whereas HSDD affects about 32% of those complaining of absent libido. Symptoms may or may not be improved by MHT.

In cases of HSDD systemic testosterone administration may be considered. Testosterone therapy in doses that approximate physiological testosterone concentrations for premenopausal women may have beneficial effects on sexual function including increases in domains of sexual desire such as arousal, orgasmic function, pleasure and sexual responsiveness together with a reduction in sexual problems including sexual distress.

Testosterone (if levels are maintained in the normal premenopause female range) is generally safe but may be associated with mild increases in acne and facial hair growth but not with alopecia, clitoromegaly or voice change.