



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

## PARALLELS BETWEEN AN UNHEALTHY SCALP CONDITION AND THAT RESULTING FROM CHRONOLOGICAL AGING

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**Introduction:** The skin of the scalp is similar to that from other parts of the body in that chronological aging results in detrimental effects to its structure and function. Likewise, an unhealthy scalp state such as that occurring in dandruff / seborrheic dermatitis (D/SD) shows evidence of compromised structure and function.

**Objective:** Explore and compare the disruptions in normal scalp function in both aging and dandruff populations via a range of techniques, including molecular indicators, functional assessments and genetic expression profiles.

**Results:** There are many overlaps between the signs of an aging scalp and those from an unhealthy scalp. These include biomarkers related to oxidative stress, barrier function and genes involved in key functional pathways. Treatment of an unhealthy scalp with an anti-dandruff shampoo leads to reversals of these attributes associated with both unhealthy and aging scalps.

**Conclusions:** Scalp skin ages in ways similar to that of other parts of the body. An unhealthy scalp shows striking similarities to that of aged scalp, suggesting an unhealthy scalp can be thought of as prematurely aged. The unhealthy, prematurely aged scalp can be reversed by treatment with an effective anti-dandruff shampoo, thus reverting the condition to that consistent with the person's chronological age.

