

Skin Ageing From a Medical Stand Point

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Abstract

During our life span the character of our skin is always changing. First signs of the ageing process begin from around the twenty fifth year but the speed at which this process takes place is extremely variable from person to person.

At some point in the natural ageing process, the skin becomes a demanding or atrophic skin. However, the time from which the skin needs much more care and attention because of the ageing process depends on different circumstances.

There are many theories which try to explain what causes skin ageing at the clinical and molecular level. It is to assume that during the normal ageing process the loss of many skin cells is due to missing or defective repair in cell metabolism.

It is however safe to say that light damage and stress lead to a more accelerated ageing of the skin. It has also been proven that at the molecular level of the skin ageing there are certain processes, which can be well documented. The most important are: reduced DNA repair, reduced enzyme activity, radicals damage to skin cells, reduction of the intercellular matrix and reduced intercellular life-saving particles.

It can be concluded that with all the present known bio-chemical methods, many "anti-ageing-substances" can be verified but one cannot define the exact working mechanism in the cells or in the tissue. Thus the skin ageing process cannot be exactly defined clinically or bio-chemically. Whether cosmetics can have influence on skin ageing is more than questionable. From a medical stand point, it would probably be wiser to combine internal and external medication (dietary supplements as trace elements etc.) as therapy of the skin ageing.

Introduction

During our life span the character of our skin is always changing. During childhood it is mostly fine-pored and tender, in adolescence usually on the fatty side, young adults' skin is – depending on its character – dry, oily, or of a hybrid type and

as the ageing process progresses the skin becomes drier and more demanding. Terms such as "demanding" or "mature" skin are used to elegantly describe ageing skin types. At some point in the natural ageing process, the skin becomes a demanding or atrophic skin. However, the time from which the skin needs much more care and attention because of the ageing process depends on different circumstances.

First signs of the ageing process begin from around the twenty fifth year, but the speed at which this process takes place is extremely variable from person to person. The ageing process which can be seen very early and clearly compared to the other ageing processes of the human organism is the one of the skin.

The rate at which cell division takes place decreases towards the 25th and 30th year. Also the renewal of skin cells decreases: the skin becomes thinner and small red veins can be seen, the moisture content as well as the elasticity decrease noticeably. Around the eyes and mouth, the first wrinkles appear. Ultimately, the supply of blood, nourishments and oxygen of the skin decreases.

As the organism approaches the 40th year, the skin starts becoming mature. Depending on the lifestyle, deep folds and wrinkles become visible, caused by great changes in the cellular connective tissue. The skin surface becomes rougher, the pores larger. In addition the skin dries out considerably because the production of sebum from the sebaceous glands slows down as the organism ages. The skin loses its ability to store moisture, and dry skin turns to sensitive skin, which leads to redness, itching and tautness. This type of skin is also much more vulnerable than young skin.

Due to hormonal changes that occur during the menopause female organisms are subject to numerous changes which show up also on skin and hair. The skin loses its elasticity, and females suffer from androgenetic hair loss, due to the sinking of the oestrogen level.