## Application - Empowerment App

## Empowerment App – Anti-inflammatory Lifestyle

## CARSTEN SAUER MIKKELSEN<sup>1</sup> AND PERNILLE SKALL<sup>2</sup>

<sup>1</sup>Research Lab, Department of Dermatology, University of Aalborg, and Private Dermatology Practice, Brønderslev, Denmark, <sup>2</sup>Cand merc, owner of PS-studio, certified yoga, meditation, mindfulness, fitness instructor. Certified coach in cognitive and positive psychology. E-mail: ps@pernilleskall.dk. Conflict of interest: Pernille Skall is owner of PS-studio.



The latest buzzword within dermatology and modern medical research is inflammation, also known as "the secret killer", already described in "Time Magazine" 10 years ago. If you can not turn off the inflammation, but keep it chronic activated it is well-known to harm your health.

Earlier isolated skin diseases like psoriasis, pustulosis palmoplantaris, hidrosadenitis suppurativa, atopic dermatitis, chronic urticaria and even rosacea are renamed as systemic inflammatory diseases with a significant higher risk of co-morbidity and mortality. The cutaneous manifestations become an important marker for serious co-morbidity where early screening programmes and interventions are essential.

Patients need education to understand the complexity of their skin disease and to ensure that they follow treatment correctly. Patient empowerment is a process to help gain control, which includes taking the initiative, solving problems and making decisions.

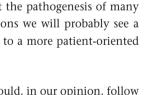


With the new information about the pathogenesis of many skin diseases and treatment options we will probably see a shift from the biomedical model to a more patient-oriented consultation and counselling.

Dermatologists and their staff should, in our opinion, follow a holistic approach to ensure that their patients are empowered with sufficient knowledge, understanding, skills and

confidence to take an active role in their own wellbeing. Health literacy is a significant concern in many skin conditions.

We know that physically and mentally stress caused by lack of sleep, smoking, alcohol and bad coping strategies increases the inflammatory activity. A



tense, superficial respiration increases the acid-level in the body. Meditation, breathing techniques and yoga can via the parasympathic system be helpful. Mental coaching is another way to minimize the stress and inflammatory level. Obesity alone increases the inflammatory activity.

We know wrong intake of meat can elevate the levels of C-reactive protein, which is an indicator of inflammation. Meat can raise insulin-like growth factor 1 and cause insulin resistance leading to diabetes and it can also produce a metabolite trimethylamin-N-oxide which can promote heart disease.



Meat also contains advanced glycation end-products which stimulates the inflammatory activity. Anti-inflammatory diet containing vegetables, slow carb, omega 3 fatty acids, cabbage, garlic, mint and monounsaturated fats can be helpful.

Physical activity prevents development of heart disease and balance your immune system in a positive way.

In order to decrease the inflammatory activity and help patients' empowerment we have developed an anti-inflam-



