

## HYGIENIC ASSESSMENT OF THE IMPORTANCE OF DIET IN SKIN DISEASES

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**Annotation.** The article analyzes the role of nutritional factors in the pathogenesis and course of skin diseases from a hygienic point of view. Analysis of the literature of recent years shows that a "Western" diet with a high glycemic load, ultra-processed products, excessive consumption of animal fats and sugar contribute to the development and exacerbation of inflammatory skin diseases, such as acne, psoriasis, and atopic dermatitis. Conversely, a Mediterranean-style diet rich in fruits, vegetables, whole grains, fish fatty acids, and polyphenols can improve skin condition through its antioxidant and anti-inflammatory effects. From the point of view of a hygienic assessment, the need for a systematic study of the diet of patients with skin diseases, the identification of nutritional errors, and the development of evidence-based recommendations for diet therapy is substantiated.

**Keywords:** skin diseases, dietary hygiene, acne, psoriasis, atopic dermatitis, Mediterranean diet, glycemic load, ultra-processed products.

Skin diseases occupy a high proportion of chronic diseases worldwide; acne, psoriasis, atopic dermatitis, seborrheic dermatitis, rashes, etc. significantly reduce the patient's physical, mental, and social quality of life. Although dermatological practice has traditionally relied on local and systemic medications, evidence of dietary effects on skin health has increased dramatically in recent years.

Dietary factors not only determine the nutritional supply of the skin (vitamins, microelements, fatty acids), but also directly influence the development of many skin diseases through the intestinal-skin axis, microbiota, oxidative stress, and immune inflammatory mechanisms.

From the point of view of nutritional hygiene, the analysis of the diet of patients with skin diseases, the identification of risky eating habits, and the formation of an integrated approach with evidence-based dietary therapy measures are relevant issues today.

**Aim.** Scientific substantiation of the importance of nutritional factors in skin diseases from a hygienic point of view, systematization of the main dietary risk and protective factors based on the analysis of literature, and development of practical hygienic recommendations.

**Materials and methods.** This work was done as a review of narrative literature. We searched for English-language articles, systematic reviews, and meta-analyses published in PubMed, Scopus, and other databases between 2014 and 2025. Search words: "diet and dermatology," "nutrition and acne," "psoriasis diet," "atopic dermatitis diet," "inflammatory skin diseases and nutrition" and others.

Selection criteria:

studies of dietary factors associated with skin diseases (acne vulgaris, psoriasis, atopic dermatitis, other inflammatory dermatoses);

works that assessed the influence of dietary intervention, diet type, or individual nutritional components (glucose load, dairy products, fatty acids, vitamins, etc.);

systematic review, meta-analysis, randomized clinical trials, and large-scale observational work.

More than 40 sources were reviewed and divided into main blocks according to skin diseases: acne, psoriasis, atopic dermatitis, and general skin health.

### **Results**

#### **Acne vulgaris and nutrition**

A number of systematic reviews have shown a positive correlation between the occurrence and severity of dietary acne with a high glycemic index and glycemic load.

Refined carbohydrates and sweet drinks increase insulin and IGF-1 levels, which stimulate sebum secretion, keratinization, and inflammatory mediators, supporting acne pathogenesis.

Although evidence on dairy products is contradictory, a number of studies have noted an association between consumption of skim milk, especially skim milk; however, this association may be due to ethnic and gender differences.

In interventional studies using a diet with a low glycemic load, a decrease in the number and weight of acne elements was observed, which indicates that diet therapy can be effective as an auxiliary method for acne.

#### **Hygienic aspect:**

Assessment of a high-glucose diet (sweet drinks, white bread, fast food) as a "food risk factor"; recommend increasing the share of whole grains, vegetables, and fruits in the daily diet; not a complete ban on dairy products, but adaptation based on the clinical situation and the patient's individual sensitivity.

#### **Psoriasis and diet**

Psoriasis is a chronic inflammatory disease often associated with obesity, metabolic syndrome. Studies in recent years have shown that following a Mediterranean-type diet is associated with a decrease in the severity of psoriasis and an improvement in the quality of life.

It has been noted that calorie-restricted, weight-reducing diets, especially in patients with obesity, reduce psoriasis severity indices (PASI) and improve the response to drug therapy.

There is evidence that a gluten-free diet may be partially beneficial in patients with gluten-sensitive or cholak-associated psoriasis, but this does not mean that it should be mechanically applied to all patients.

Recent large cohort studies have shown that the risk of developing psoriasis increases with increasing consumption of ultra-processed products (UPF); especially when combined with high genetic risk, the risk increases by 2.5-3 times.

#### **Hygienic aspect:**

The structure of nutrition and calorie balance in patients with obese psoriasis must be assessed; The proportion of UPF (chips, sausage, sweet carbonated drinks, fast food) in the diet is assessed as the main hygienic hazard;

A Mediterranean-type diet (olive oil, fish, nuts, greens, vegetables and fruits) can be recommended as a hygienic "protection model" for psoriasis.

#### **Atopic dermatitis and dietary factors**

Atopic dermatitis (AD) is closely related to the intestinal-skin axis, immune system, and allergen sensitivity. Recent systematic reviews and meta-analyses show that supplementary food exclusion diets in children with AD are meaningful only in cases of proven food allergies, otherwise they increase the risk of growth and nutritional deficiency.

On the other hand, there is growing evidence that fruits and vegetables, seafood, omega-3 fatty acids, and a fiber-rich diet can reduce the severity and frequency of AD.

A diet with a high "dietary inflammatory index" (high sugar, white flour, trans fats, processed meat) is positively correlated with the prevalence and severity of AD.

#### **Hygienic aspect:**

In patients with AD, any elimination diet should be introduced only on the basis of allergological studies (skin test, specific IgE, food tests);

Unjustified cancellation of "all milk, eggs, wheat" is not acceptable from a hygienic point of view;

Nutritional hygiene involves the balanced organization of an anti-inflammatory diet while ensuring growth and development in children.

#### **General skin health, micronutrients, and hygiene**

There is a lot of information about the photoprotective, antioxidant, and anti-inflammatory effects of vitamins A, E, C, D, zinc, selenium, polyphenols, and omega-3 fatty acids, which have nutritional properties.

However, uncontrolled intake of many biologically active additives (BAA) is hygienically unacceptable due to toxicity and risk of interaction. The appointment should only be based on the needs assessed by the doctor and dietitian.

From the point of view of nutritional hygiene, the main emphasis should be placed not on supplements, but on a complete, diverse, plant-rich diet.

#### **Discussion**

Analysis of the literature shows that:

**Dietary factors are an important, regulated component of the pathogenesis of skin diseases**, acting through inflammation, oxidative stress, the hormonal fund, and the microbiota.

Western, high-glycemic, ultra-processed, animal-fat-rich diets increase the risk and severity of acne, psoriasis, atopic dermatitis, and other inflammatory dermatoses.

On the contrary, a Mediterranean-style diet, complete plant-based meals, a diet rich in omega-3 sources and antioxidants are viewed as protective factors.

In clinical practice, patients often resort to unsubstantiated, strictly restrictive diets (for example, abolishing all dairy products, all cereals, all "histamine" products) based on information from social networks and the media. This increases the risk of nutritional deficiency, psychological stress, and disobedience to therapy.

Hygienic assessment requires:

assessment of the patient's daily dietary regimen using systematic and structured methods (24 hours of recall, food frequency questionnaire, diet diary);

taking into account the general metabolic background through body mass index, lumbar region, laboratory indicators (lipids, glucose, vitamin D, etc.);

adapting the diet individually depending on the type and severity of the disease, i.e., avoiding "one common diet for all skin diseases";

Implement a multidisciplinary approach in collaboration with a dermatologist, dietitian, and hygienist.

#### **RESULT**

1. Nutritional factors in skin diseases have significant hygienic significance and act as a factor that promotes or protects the disease.

2. A diet rich in high glycemic load, ultra-processed products, sugar, and animal fats can exacerbate acne, psoriasis, and atopic dermatitis; such a diet should be considered a hygienic risk factor.

3. A Mediterranean-type, plant-rich diet containing omega-3 sources can alleviate the course of many heat and inflammatory dermatoses; this is a hygienically acceptable nutrition model.

4. In cases where food allergies are unproven, the use of large-scale elimination diets is hygienically incorrect and increases the risk of nutritional deficiency.
5. Hygienic assessment of nutrition in patients with skin diseases should be a constant part of dermatological practice, and the results should be taken into account when developing individual diet therapy and preventive recommendations.

## REFERENCES

1. Vora RV, et al. Diet in dermatology: a review. *Eur J Dermatol Venereol*. 2020.
2. Big R, Desai SP. Diet and dermatology: the role of dietary intervention in skin diseases. *J Clin Aesthetic Dermatol*.
3. Meixiong J, et al. Diet and acne: a systematic review. *Curr Opin Clin Nutr Metab Care*.
4. Ryguła I, et al. Impact of diet and nutrition in patients with acne vulgaris. *Nutrients*. 2024.
5. Sakhaei R, Mohsenpour MA. Low glycemic load or index diet in association with acne vulgaris: a systematic review and meta-analysis. *Crit Comments Biomed*. 2020.
6. Vaduva OG, et al. Dietary principles, interventions and oxidative stress in psoriasis. *Medicine*. 2025.
7. Wang Q, et al. Evidence-based dietary recommendations for patients with psoriasis: a systematic review. 2025.
8. Minghui L, et al. Association between dietary consumption habits and psoriasis: a Mendelian randomization study. *Front Nutr*. 2024.
9. Vassilopoulou E, et al. Nutritional and dietary interventions for atopic dermatitis in children: a systematic review and meta-analysis. 2024.
10. Boggio CMT, et al. Western Diet and Atopic Dermatitis: The Potential Role of Dietary Patterns. *Antioxidants*. 2025.
11. Tan K, et al. Dietary inflammation: a potential driver of atopic dermatitis? *Front Immunol*. 2025.
12. Assaf S, et al. Nutritional dermatology: optimizing dietary choices for skin health. *Nutrients*. 2024.
13. Ismail MA, et al. The impact of diet on skin inflammatory disorders and its therapeutic implications: a systematic review. 2025.
14. Dymek A, et al. Multidisciplinary management of psoriasis: integrating diet and lifestyle. 2025.
15. Barrea L., et al. Medical nutrition therapy in dermatological diseases. 2025.