



Superfoods for Skin Health - A Review Paper

Anna K Dhaliwal^{1*} and Amrinder Kaur²

¹Assistant Professor, Faculty of Allied and Health Care Sciences, GNA University, Phagwara, India

²Assistant Professor, MLS Department, PCTE Institute Bhadowal, Ludhiana, India

*Corresponding Author: Anna K Dhaliwal, Assistant Professor, Faculty of Allied and Health Care Sciences, GNA University, Phagwara, India.

Received: May 12, 2022

Published: June 22, 2022

© All rights are reserved by Anna K Dhaliwal and Amrinder Kaur.

Abstract

Skin is the most delicate part of the body that requires special attention and protection, and if neglected, it can become vulnerable to various diseases. Eczema is one of the various skin illnesses that affect people. Eczema, also known as Dermatitis, is a common form of inflammation that mostly affects the epidermis, the outer layer of skin. It causes skin irritation, dryness, tiny scales, and moderate redness. When the mild form of eczema reaches a specific threshold, it transforms into Atopic Dermatitis, Allergic Contact Eczema, Neurodermatitis, Nummular Eczema, *Seborrheic* Eczema, and other types. However, if a person incorporates correct nutrition and healthy resources into his daily routine, he will be able to meet the needs of skin-cure requirements. There are certain foods known as Superfoods that contain all required nutrients, which play a significant role in maintaining skin health and preventing skin problems. The purpose of this review article is to provide information on Superfoods and their skin benefits.

Keywords: Eczema; Superfoods; Nutrients; Inflammation; Allergies

Introduction

Skin, the most sensitive organ of the body can be exposed to certain diseases like eczema due to allergies that can be caused by dust mites, pets, pollens and molds. Food allergies can also occur through dairy, eggs, seeds, peanuts and soy products. Food allergies do not cause eczema but they can just trigger the eczema due to immediate reaction or delayed reaction. Quick temperate or humidity changes can also cause pimples on the skin and eczema. There are various causes which lead to different types of eczema disorders

- **Atopic Dermatitis:** It is a type of eczema that affects mostly babies and children. Atopic Dermatitis can affect those who live in cities with a dry climate. It is a chronic skin illness that

is commonly referred to as a severe form of eczema. Atopic Dermatitis is a skin inflammation caused by a tendency to develop allergic reactions. Itchy and dry skin results in redness, swelling, cracking, crusting, thick skin, and scaling [8].

- **Allergic Contact Eczema:** This is a type of eczema that develops as a result of skin contact with an allergic material, such as poison ivy, that the immune system has never experienced before. The skin turns red, itching, and scabby.
- **Dyshidrotic Eczema:** It is a type of eczema disease which is common in women than men. Fluid-filled blisters form on the fingers, hands, and feet as a result. These blisters make the skin itchy with scaly patches, cracked and painful [5].

- **Neurodermatitis:** This is caused by an insect bite, which causes scaly areas to appear on the head, lower legs, wrists, and forearms.
- **Nummular Eczema:** This is also known as Discoid Eczema. Nummular refers to coins, while discoid refers to discs. Round or oval patches appear on the skin with this type of eczema. These areas are scaly and itch like crazy. It also causes skin irritation [5].
- **Seborrheic Eczema:** Seborrheic Dermatitis, or Seborrhea, is another name for this condition. A fungal infection on the skin causes the condition to develop. A lack of vitamin B in the diet is another factor. Seborrhea is also common in patients suffering from Parkinson's disease or Epilepsy. Yellowish, greasy flakes appear on the head, face, and behind the ears as a result of this condition.
- **Stasis Dermatitis:** The skin on the lower thighs becomes inflamed when blood flow is disturbed. This is referred to as Stasis Dermatitis [5].

Nutrients required for preventing or treating these disorders

Vitamin B, vitamin C (Ascorbic acid), vitamin D (Calciferol), essential fatty acids (omega-6 and omega-3 fatty acids), energy-rich diet, proteins, antioxidants- vitamin E (Tocopherol), high fibre content, and a diet low in minerals like selenium, sodium, and zinc are all nutrients that are required for maintaining and keeping the skin free of any disorders. Fiber- 20-25gms., vitamin E-400-800 I.U., vitamin B2- > 0.5-0.6 mg, vitamin C-2000-3000 mg, low sodium- 5-35 mg, low selenium- 0.04-0.10 ppm, low zinc- 9 mg, and vitamin A-15 mg should be consumed on a regular basis.

Superfoods

Superfoods for eczema disease

The skin protects the body's different interior organs. This is also considered to be the first line of protection against dangerous substances. As a result, ingesting nutrients that are helpful to skin health is essential to protect our skin from numerous disorders. The nutrients described above can be consumed as Superfoods, which include required elements that can improve health. These are listed further down.

- **Eggs:** Eggs are high in vitamin D, vitamin B (especially B2, B3, and B6), and vitamin A, as well as a strong source of minerals including sodium and zinc. Vitamin D in eggs serves as

an immunomodulator by assisting in the release of Cathelicidin (an antibacterial protein secreted on the skin as a first line of defence against infections), which protects the skin from infectious disorders such as Atopic Dermatitis. Vitamin B2, B3, and B6 help the skin grow and develop while also protecting it against *Seborrheic Eczema* [7]. Vitamin A-rich eggs promote healthy skin and mucous lining, which functions as a barrier against viruses and bacteria.

- **Broccoli:** Broccoli contains a lot of vitamin C, which helps with lymphocyte transformation and neutrophil chemotaxis. As a result, vitamin C boosts the immune system and protects the skin from harm. Broccoli also contains vitamin B2, which aids in skin growth and development and protects against eczema. In addition, broccoli's low salt content helps to treat and prevent Atopic Eczema.
- **Milk:** Milk contains vitamins B2 and B3, which aid in skin development and protection from *Seborrheic Eczema* [7]. Vitamin A, B2, and B3 are all found in milk. Vitamin A aids in the development of a healthy skin and mucous lining, which serves as a barrier against viruses and germs. Milk also has a low selenium and zinc concentration, which can help prevent and treat skin problems.
- **Wheat germ:** Wheat germ has the highest vitamin E content. Vitamin E is an antioxidant that protects the brain system against free radicals produced by 6-hydroxydopamine, a neurotoxin that reduces the effect of dopamine (a neurotransmitter). Thus, wheat germ can help to prevent Parkinson's disease simultaneously treats seborrhea eczema.
- **Fish:** Omega-3 fatty acids are found in abundance in fish. Fish oil contains omega-3 fatty acids, which are essential for maintaining the structure and function of every cell in the body. This boosts the cell immune system, which protects the skin from food allergies and hence eczema. Vitamin B2 and B6 are also found in fish, which aid in the formation and development of the skin and protect it from *Seborrheic Eczema*.
- **Spinach:** The best source of vitamin B2 is spinach. Vitamin B6, vitamin A, and vitamin E are also abundant. Vitamin B2 and B6 are necessary for skin growth and development, as well as protecting the skin against *Seborrheic Eczema*. Vitamin A supports a healthy skin and mucous lining, which offers resistance against viruses and bacteria. Spinach, which

contains vitamin E, is an antioxidant that helps to prevent Parkinson's disease and, as a consequence, *Seborrheic Eczema* [4]. Spinach is also high in vitamin C, which helps to promote lymphocyte transformation and neutrophil chemotaxis, strengthening the immune response and protecting the skin from food allergies.

- **Beans:** Beans are high in Vitamin B2 and Vitamin B6; therefore they aid in skin growth and development and protect the skin from a variety of skin problems. Beans also include a low quantity of zinc, which is helpful in preventing and treating skin illnesses such as Atopic Eczema.
- **Nuts:** Nuts are the rich source of omega-6-fatty acids and richest source of vitamin E. Omega-6-fatty acids prevent the skin from inflammation and maintain the cells of the skin. Vitamin E prevents Parkinson's disease by acting as antioxidant that shows neuroprotective activity by inhibiting the free radicals generated by 6-hydroxydopamine, a neurotoxin which lowers the effect of dopamine (neurotransmitter) in the nervous system. This directly keeps the skin away from getting any disorder. Nuts also contain vitamin B₂ and vitamin B₆ which helps in the growth and development of the skin and thus protects the skin from Seborrheic Eczema.
- **Bananas:** Bananas are the richest source of vitamin B6, which helps to maintain skin growth and development and prevent eczema [9]. Bananas are also poor in minerals like zinc, salt, and selenium, which are helpful in preventing and treating Atopic Eczema.
- **Whole grains:** Grains are enriched in omega-6 fatty acids, which protect cells from infection and maintain the skin's cells effectively, curing nummular eczema. These grains also contain vitamin E, which is an antioxidant that protects the neurological system and helps to prevent Parkinson's disease, as well as inhibiting eczema.
- **Cottage cheese:** Cottage cheese is good source of B2 and B3 vitamins. These vitamins support skin growth and development, safeguarding it from a variety of disorders. Cottage cheese is particularly low in minerals like zinc, salt, and selenium, all of which are useful to protect the skin from Atopic Dermatitis.
- **Corn bran:** Corn bran consists of fibers. Fibrous rich diet helps to prevent constipation caused due damage in the

nerves of gastrointestinal tract. Therefore, inhibition of constipation leads to treatment and prevention in the development of fluid-filled blisters on the skin, thereby preventing Dyshidrotic Eczema.

- **Apples:** Apples are a fruit that are low in minerals like salt, zinc, and selenium, and are therefore beneficial to skin that has been affected by Eczema.
- **Mushrooms:** Mushrooms are abundant in vitamins B2 and B3, which aid to keep skin healthy and prevent disease.

Conclusion

The skin is a key organ in the body that serves as the body's first line of defence. As a result, it is necessary to consume sufficient nutrients and care for the skin in order to keep it healthy and free of diseases.

Bibliography

1. Stoffaneller R and Morse NL. "A review of dietary selenium intake and selenium status in Europe and the middle east". *Nutrients* 7 (2015): 1494-1537.
2. Pinto JT, et al. In: Zemleni J., Suttie J. W., Gregory J. III, Stover P. I., editors. "Handbook of vitamins. 5th edition New York: Taylor and Francis (2014): 191-265.
3. Niki E and Traber MG. "A history of vitamin E". *Annals of Nutrition and Metabolism* 61 (2012): 207-212.
4. Springbett P, et al. "Photoprotection and Vitamin D status". *Journal of Photochemistry and Photobiology B* 101 (2010): 160-168.
5. Ong PY and Leung DY. "The infectious aspects of atopic dermatitis". *Immunology and Allergy Clinics of North America* 30.3 (2010): 309-321.
6. Mohr SB. "A brief history of vitamin D and Cancer prevention". *Annals of Epidemiology* 19.2 (2009): 79-83.
7. Odhiambo JA, et al. ISAAC Phase Three Study Group. "Global variations in prevalence of eczema symptoms in children from ISAAC Phase Three". *Journal of Allergy Clinical Immunology* 124.6 (2009): 1251.

8. Johansson SG, *et al.* "Revised Nomenclature for allergy for global use: report of the Nomenclature Review Committee of the World Allergy Organization". *Journal of Allergy Clinical Immunology* 113 (2004): 832-836.
9. Cannon WB. "Organization for physiological homeostasis". *Physiological Reviews* 9 (1929): 399-431.