

Skin Minimalism - What is the New Beauty Trend?

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Mini Review

The assumptions of the “less is more” trend are becoming more attractive to more and more consumers. In the last few years, we can see the development of many new cosmetic companies. In social media, we are faced with many advertisements for more and more new products available on the market. Often it is under the influence of external stimuli that we buy new cosmetics, which very often end up on our shelves and then into the trash. The minimalism trend educates consumers to be prudent about excessive consumerism. We lose money, stimulate the skin and contribute to environmental pollution. The idea of skin minimalism assumes not only limiting the amount of products used every day, but also reducing the number of used cosmetics packaging.

Let's Focus on Quality not Quantity

It should be emphasized that the discussed trend does not force us to drastically reduce the number of cosmetics, but to try to limit care to the most important products, properly selected for our skin and its appendages. Too many cosmetics and frequent changes of cosmetics contribute to the occurrence of hyperreactivity of the skin. Instead of getting the effect of improving its condition, we can achieve the opposite expectations. Let us remember that each of us should approach trends with caution and personalization tailored to our own needs. Experts have been repeating for a long time that overzealous use of cosmetics can not end up with anything good. Applying one cosmetic after another to the face, as well as changing products of-

ten, harms instead of helping. Patients who spend a lot of money on care, but often lack effects, come to dermatologists and cosmetology offices. This is due to the fact that the skin attacked on a daily basis is caused by many external factors, including an excess of cosmetics. As a result, it loses its natural hydrolipid coating, which is a protection against moisture loss and the harmful effects of external factors. The effects of such action are, among others: irritation, skin dryness, allergies, eczema, acne. It is advised to limit the application of cosmetics dedicated to:

1. Make-up removal (products that contain active ingredients with an intensive cleansing and care effect).
2. Moisturizing and anti-oxidation (in combination with an active ingredient matched to the current needs of a given skin).

If we apply products based on high-quality active ingredients, reduced to the above-mentioned types of products, we will certainly use up cosmetics in the long run, not buying any more unnecessarily in the meantime. Thanks to this limitation, at least at the initial stage, the skin regains its condition, inflammation and many dysfunctions are reduced. Stopping the constant change of active ingredients reduces skin stress that contributes to accelerated aging.

Skin Minimalism - How to Start a Care Detox?

1. Instead of buying cosmetics, each of which has a very limited use, look for products with a global effect. Good quality, tailored to the needs of our skin, but solving many problems at the same time.

2. The skin minimalism trend is a return to the original idea of care, i.e. providing the skin with what it needs, and not soaking it with cosmetics whose producers declare miraculous effects. Let the skin rest. Let's not apply many products one after the other, because our skin will not have time to deal with the absorption of those that have been applied before.
3. Let's start by analyzing the real needs of the skin. Each complexion requires cleansing, moisturizing and protection against solar radiation (depending on the UV index). Let's stick to these points.
4. It is worth buying one cleansing cosmetic that will remove impurities and make-up from the skin. The most important product should be the moisturizer. It is also worth considering an antioxidant serum.
5. Let us remember that less cosmetics means less packaging, which means less garbage that pollutes the planet.
6. Using a multitasking cream to maintain the care effect and even out the color is also a good idea. Make-up no make-up should combine caring, protective and corrective ingredients. BB or CC products with the so-called "intelligent pigment" are ideal. That is why multifunctional products are recommended in skin minimalism. Multifunctional in this case is, for example, a product that combines the protective effect of SPF and antioxidant. You can be beautiful even without make-up.

Let's Look for Ways to Reduce Products and Reuse Them. What Cosmetics Should We Look For?

First of all, multitasking and reusable cosmetics. The tests were performed at Centrum Dermatologii Symbiosis Sp. z o. o. in Poznan. Proband on the first day of the experiment were thoroughly informed about the course of the study. Then, they filled out all the consents, were examined using the POLDERMA EXPLORE 3D device and the MPA 580 Courage + Khazaka electronic GmbH probe set, a thorough interview was conducted to check the condition of the probands' skin. After performing the "scan" and measuring the biophysical parameters of the skin, the probands received one of the lotions for application. 30 probands participated in the study. Measurements made with the POLDERMA EXPLORE 3D device and the MPA 580 Courage + Khazaka electronic probe set were carried out before the start of the tests, in the first and last week of the tests. apparatus and application tests of Wcierka Hairy Tale Grasshopper - recommended as a product for toning dry and dehydrated skin. Participation in the study was voluntary. It was possible to withdraw from participation in the study at any stage of its duration, without giving a reason. Personal data was processed only for the purposes of scientific analysis in accordance with the law in force in Poland (Act of May 10, 2018 on the

Protection of Personal Data, Journal of Laws 2018, item 1000). The research was conducted based on the consent of the Bioethics Committee, resolution number 640/22. Wcierka Hairy Tale Grasshopper - is recommended as a product for toning dry and dehydrated scalp. Studies have been carried out that have confirmed the effectiveness of the product on the skin of the face and body.

1. Regulating properties.
2. Toning properties.
3. Allows to maintain physiological pH on the surface, which creates a proper environment for natural microflora.
4. Has an antioxidant and soothing effect.

Study of Biophysical Parameters of Leather

The Level of Hydration of the Epidermis

The chart below shows the change in the moisture level of the probands. It should be remembered that the subjects (n=30), apart from the zero sample, were subjected to the care application with the tested product (Figure 1). The results have been averaged. All measurements were taken on the cheeks and in the T-zone. Based on the above figure, it can be seen that all the people who participated in the study had better results of the hydration parameter over the course of the experiment. The skin is a complex mechanism that tries to restore the proper biophysical parameters of the skin. In the natural process of exfoliation of epidermal cells, the proteolytic degradation of desmosomes, conditioned by the activity of proteases and the deactivation of inhibitors, plays a key role. This process is also very dependent on the lipids of the extracellular matrix. "Turn over" exfoliation affects the maintenance of proper humidity, with proper NMF synthesis, and thus the pH value of the lipid coat. Epidermal replacement is a natural process that cleanses the skin of toxins, bacteria and mite excrement, the rate of renewal of which decreases with age. Impairment of the barrier function is manifested by a significant decrease in the level of hydration. The ingredients used in the Grasshopper mousse have an active effect that improves the epidermal barrier.

The time needed to restore the proper hydration parameter would be much longer if the discussed care was not used. Changes in the hydration parameter ranged on average from 20-89 [cu.u.] (Table 1) presents the interpretation of the results. The longer the time of using the cosmetic, the better the parameter improved.

Table 1: Interpretation of skin hydration measurement results.

Stopień Nawilżenia Naskórka	Wynik pomiaru [j.u.]
Skóra bardzo sucha	<30
Skóra Sucha	30-45
Skóra dostatecznie nawilżona	>45

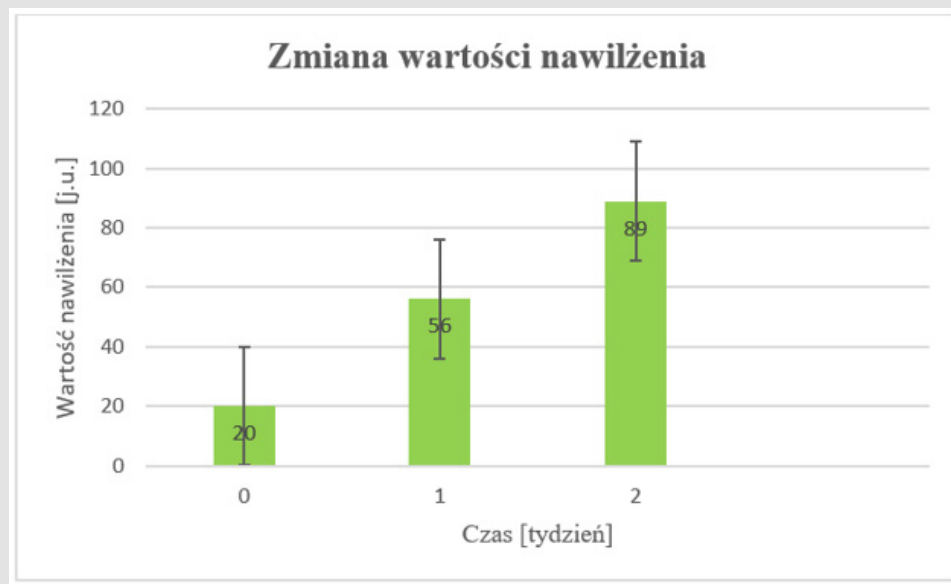


Figure 1: Mean change in hydration value of probands measured before and during the study (n=30), *- p<0.05.

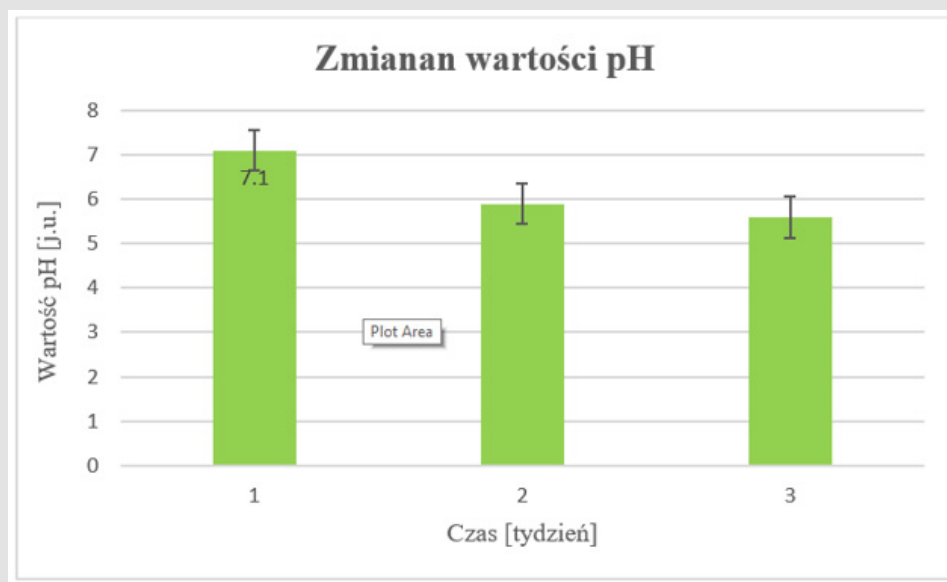


Figure 2: Mean change in pH value of probands performed during the study (n=10), *- p<0.05.

Measurement of the pH Value

The figure below shows the change in the pH value of the probands. It should be remembered that the subjects (n=30), apart from the zero sample, were subjected to care application with the tested product (Figure 2). The results have been averaged. All measurements were taken on the cheeks and in the T-zone. A very important factor influencing the enzymatic processes involved in the process of proliferation of epidermal cells is pH. In healthy children after birth,

its value is close to neutral (pH 6.5). It changes after a few weeks and, as in adults, it reaches a pH of 5.3 - 5.9. The pH value of the epidermis is affected by endogenous and exogenous factors, such as phospholipase A2, NMF components, components of sweat, sebum, bacterial metabolites, organic and inorganic chemical compounds applied to the skin [1]. Symptoms similar to the frequently reported problem, i.e. allergy to cosmetics, may also be caused by increased sensitivity of the TRPV1 receptor (transient receptor potential vanilloid subtype)

[1]. This receptor is sensitive to many chemical stimuli, including temperatures higher than 42°C and high pH values. The skin immediately after washing with formulations characterized by high pH values becomes more alkaline.

In pathological conditions, the use of, for example, soap may lead to a much greater difference in the pH of the lipid coat, perceived by the receptor as a chemical burn [2]. These symptoms may be exacerbated by increased contact of cosmetic ingredients with infected skin. In the tested wcierka, gluconolactone and inulin are responsible for regulating the pH value of the skin. It was found that the acquired sensitivity to cosmetics is caused, among others, by the weakening of the lipid-epidermal barrier and the increase in the pH of the epidermis.

Conclusion

Based on the tests carried out using the POLDERMA EXPLORE 3D skin parameters analyzer and the MPA 580 Courage + Khazaka electronic GmbH probe set. It was found:

1. Improvement of the condition of the skin, which was caused by the restoration of the correct pH value. What is felt by patients as lack of tightness, redness and excessive skin tension.
2. Improved skin hydration
3. Texture improvement
4. Regulating and soothing action
5. Toning

It can be seen that the operation of the wcierka is in accordance with the manufacturer's declaration and resulted in a significant improvement of the tested parameters. The extension of the Manufacturer's declaration regarding the toning properties of the product is justified. After the first use of the Grasshopper lotion, the probands noticed the regulation of the work of the sebaceous glands. As a result, the physiological pH value on the surface of the skin was maintained. This value contributed to the creation of the correct environment for the natural microflora. The preparation supports the action of cleansing products. The skin became more tense and cleansed after each application. The application and apparatus tests carried out on the group qualified for the tests fully confirmed the use and care properties of the Wcierka Grasshopper HAIRY TALE product declared by the manufacturer.

The product contains the following ingredients:

1. Brewer's yeast, which is characterized by a high content of B vitamins.
2. Hops have a strengthening effect on skin cells.
3. Propanediol improves the solubility of active ingredients.
4. Inulin has a beneficial effect on the natural microbiome of the skin.
5. Gluconolactone has an antioxidant, soothing and toning effect.

Brewer's yeast, which contains B vitamins, is necessary for the proper functioning of the skin and mucous membranes. They can prevent excessive oily skin. Brewer's yeast contains biotin and pantothenic acid (vitamin B5) [3-6]. Thanks to them, the skin retains its elasticity. Zinc present in yeast is essential for the proper functioning of the skin. In addition to its strengthening effect, hop contributes to the regulation of sebaceous glands, regenerates and tones the skin [7,8]. Inulin is a polysaccharide composed of about 30-35 monosaccharide molecules linked by β -2,1-glycosidic bonds into an unbranched chain, it allows you to maintain the physiological pH value on the skin surface, which creates a proper environment for natural microflora. On the other hand, gluconolactone has an antioxidant and soothing effect [9]. The described trend will gain more and more supporters, we minimize skin stress, reduce the amount of pollution and save money [10]. Our population is becoming more and more aware, which is why the trends related to reusing water, reducing its amount, replacing it with other raw materials are becoming so popular. In a word, sustainable development is the future not only in the production of cosmetics [11-18].

References

1. Havran WL, Jameson JM (2010) Epidermal T cells and wound healing. *J Immunol* 184(10): 5423-5428.
2. Kato T, Tahai T, Mitsuishi K i wsp (2005) Cystain A inhibits IL-8 production by keratinocytes stimulated with Der P1 and Der F1: Biochemical skin barrier against house dust mites. *J Allergy Clin Immunol* 116(1): 169-176.
3. Bajcer M, Cwil P, Kania B, Maślanka E (2016) Wpływ witamin antyoksydacyjnych na skórę i ich znaczenie w kosmetologii. *Kosmetologia* 1(1): 28-36.
4. Bernat M, Matysek Nawrocka M, Cioczek W (2016) Składniki aktywne kosmetykach przeciwstarzeniowych. *Kosmetologia estetyczna* 5(6): 575-579.
5. Jarosz M (2017) Normy żywienia dla populacji Polski. Warszawa Wyd Instytut Żywności i Żywienia.
6. Lamer Zarawska E, Chwała C, Gwardys A (2012) Rośliny w kosmetyce i kosmetologii przeciwstarzeniowej. Warszawa Wyd PZWL.
7. Kim J, Yun H, Cho Y (2011) Analysis of ceramide metabolites in differentiating epidermal keratinocytes treated with calcium or vitamin C. *Nutrition Research and Practice* 5: 396-403.
8. Sałgan K (2016) Rola witaminy D3 w patogenezie chorób skóry. *Kosmetologia Estetyczna* 5(1): 15-22.
9. Pawlaczek M, Korzeniowska K (2013) Witamina A w kosmetologii i lecznictwie dermatologicznym. *Farmacja Współczesna* 6: 57-61.
10. Molski M, Chemia piękna Warszawa: Wyd. Naukowe PWN; 2012. 13. Rutkowski M, Matuszewski T, Kędziora J, et al. Witaminy E, A i C jako antyoksydanty. *Polski Merkuriusz Lekarski*. 2010; 24: 377-381. 14. Kilian-Pięta E. Witamina C jako niezbędny składnik dla skóry czło-wieka oraz czynniki determinujące jej wchłanianie. *Kosmetologia Estetyczna* 2019; 8(1): 25-30.
11. Igielska Kalwat J, Kilian Pięta E (2023) The use of tofu whey from food industry waste in podological care. *Austin Chemical Engineering* 10: 1-5.

12. Igielska Kalwat J, Kilian Pięta E, Połoczańska Godek S (2023) Trends in the manufacture and design of sustainable cosmetics. *Clinical Dermatology Open Access Journal* 8(2): 000297.
13. Igielska Kalwat J, Kilian Pięta E (2023) The Use of Tofu Whey from Food Industry in the Care of the Scalp and Hair. *Journal of Scientific and Technical Research* 4: 40948-40957.
14. Igielska Kalwat J, Kilian Pięta E, Adamczyk K, Broniarek L (2023) Antibacterial, Antiparasitic and Antifungal Properties of Natural Pyrethrins Obtained from Dalmatian Tansy Used in the Treatment and Care of Sensitive Skin. *Journal of Scientific and Technical Research* 49(3): 40675-40680.
15. Igielska Kalwat J, Ewa Kilian Pięta (2022) The Use of Dalmatian Tansy and Mandelic Acid in the Care Supporting the Treatment of Rosacea Caused by Demodex. *Clinical Dermatology Open Access Journal* 7(1) 1-9.
16. Igielska Kalwat J, Ewa Kilian Pięta, Połoczańska Godek S (2022) The use of biodegradable polymers obtained from fish waste in hair. *Polymers*. 14(4): 749.
17. Igielska Kalwat J, Połoczańska Godek S, Ewa Kilian Pięta (2022) The use of Dalmatian pyrethrum daisy and an excipient in the treatment of seborrheic dermatitis. *Acta Biochimica Polonica* 1: 123-129.
18. Corsini E, Galbiati V, Nikitovic D, Tsatsakis AM (2013) Role of oxidative stress in chemical allergens induced skin cells activation. *Food Chem Toxicol* (16): 74-81.

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