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Mini Review

Toxic Chemicals in Cosmetics: A Major Source of Transfection and Systemic Cellular Poisoning

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Abstract

Cosmetics, a significant part of daily life, often contain toxic chemicals that pose severe health risks. These substances transfect through the skin and into the largest organ of the human body—the interstitium. This network of interstitial fluids surrounds every cell, enabling the transport of harmful chemicals that poison cells and disrupt physiological processes. This article examines the toxic ingredients commonly found in cosmetics, their pathways of transfection, and the health risks they pose. Furthermore, it provides practical detoxification solutions, including MasterPeace Zeolite Z™ and SOLergy Sea Minerals™, based on peer-reviewed research to combat the systemic impacts of these chemicals [1-3].

High-resolution Transmission Electron Microscopy (TEM) reveals unparalleled insights into the nanoscale architecture and dynamics of the interstitial fluids within the interstitium - the largest organ of the human body. It highlights interstitial spaces, interstitial fluid, collagen fibrils, elastin networks, cellular interactions, and extracellular vesicles - Hikari Omni Publishing and Robert Oldham Young DSc, PhD, ND - Copyright 2024

In the above micrograph in the nanoscale you can visualize structures at dimensions between 1 and 100 nanometers. You see the specific elements in the Interstitium interstitial fluid structures viewed under High-resolution transmission microscopy at the nanoscale:

- **Interstitial Spaces and Fluids:** The interstitial fluid and spaces appear as interconnected regions, often visible at scales of 50–200 nm, depending on the resolution and sample preparation.
- **Collagen Fibrils:** Collagen fibrils, critical for structural support in the interstitium, are approximately 50–500 nm in diameter.
- **Elastin Networks:** Elastin fibers, which contribute to tissue elasticity, are typically observed at widths of 50–100 nm in high-resolution TEM images.
- **Extracellular Vesicles:** Vesicles such as exosomes, which facilitate intercellular communication, are visible at sizes between 30 and 150 nm.
- **Capillary Structures:** The smallest capillary features, such as endothelial cell layers and basement membranes, are within the 10–100 nm range.
- **Nanoparticles and Contaminants:** Toxic particles, such as microplastics or cosmetic-derived nanoparticles, are often <100 nm and are captured distinctly with TEM.

Keywords: Toxic Chemicals; Cosmetics; Transfection; Interstitium; Detoxification; MasterPeace Zeolite Z™; SOLergy Sea Minerals™

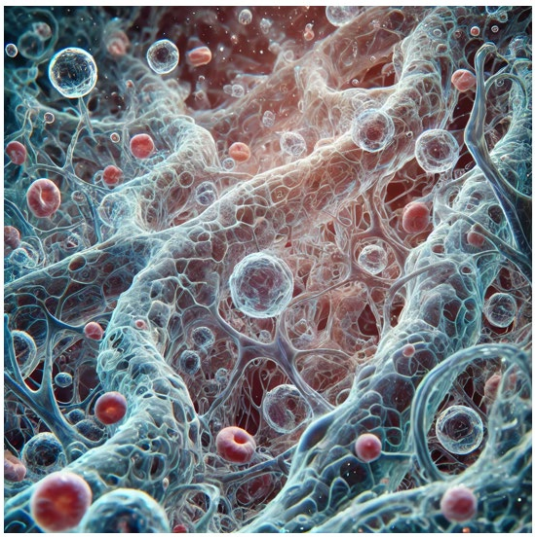

Figure a

Introduction

Cosmetics are part of everyday life, yet many products harbor hidden dangers. Toxic ingredients in these products can transfect through the skin into the interstitium, the body's largest organ comprising interconnected spaces filled with interstitial fluids [4,5]. This system facilitates the transport of nutrients but also serves as a pathway for toxins to reach and poison cells throughout the body [6,7].

Peer-reviewed studies by Young and Mansfield emphasize the role of targeted detoxification methods, such as MasterPeace Zeolite Z™ and SOLergy Sea Minerals™, in mitigating the health risks posed by these chemicals [8,9]. This article explores the major toxic chemicals found in cosmetics, their transfection pathways, and how these detox solutions can effectively eliminate them.

Discussion

The role of the interstitium in transfection

The interstitium is a vast network of fluid-filled spaces that supports nutrient transport and waste elimination. However, it also serves as a pathway for harmful cosmetic chemicals to reach every cell in the body. Once in the interstitial fluids, these toxins bypass the body's natural detoxification pathways, leading to systemic poisoning [4,6,8,10].

Key toxic chemicals in cosmetics and their risks

Titanium dioxide

- **Source and Use:** Common in makeup and sunscreen for its whitening properties.
- **Health Risks:** Penetrates the interstitium, causing oxidative stress and DNA damage. Prolonged exposure is linked to cancer [11,12].

Parabens, phthalates, and phenols

- **Source and Use:** Found in preservatives and plasticizers.
- **Health Risks:** Act as endocrine disruptors, leading to hormone imbalances and reproductive issues [13-15].

Coal tar dyes

- **Source and Use:** Found in artificial colorants.
- **Health Risks:** Linked to severe skin allergies and, in extreme cases, fatalities [16,17].

BHA and BHT

- **Source and Use:** Preservatives used in cosmetics to extend shelf life.
- **Health Risks:** Classified as possible carcinogens, disrupting cellular integrity [18,19].

Polyethylene glycol (PEG)

- **Source and Use:** Thickening agent in lotions and creams.
- **Health Risks:** Often contaminated with carcinogenic ethylene oxide and 1,4-dioxane [20,21].

Fragrances

- **Source and Use:** Complex chemical mixtures used for scent.
- **Health Risks:** Linked to cancer, neurotoxicity, and allergic reactions [22,23].

Formaldehyde-releasing preservatives

- **Source and Use:** Includes DMDM hydantoin and quaternium-15.
- **Health Risks:** Known carcinogens and skin irritants [24,25].

Solutions

MasterPeace Zeolite Z™ and SOLergy Sea Minerals™

Peer-reviewed studies highlight the effectiveness of MasterPeace Zeolite Z™ and SOLergy Sea Minerals™ in detoxifying harmful chemicals. These products work through chelation and mineral replenishment to eliminate toxins and support systemic recovery [8,9,26].

MasterPeace zeolite Z™

- **Action:** Chelates toxic substances, including parabens, phthalates, and heavy metals like titanium dioxide.
- **Pathways:** Facilitates elimination via respiration, urination, perspiration, defecation, and menstruation [27,28].

SOLergy sea minerals™

- **Action:** Provides bioavailable trace minerals to replenish those depleted by toxin exposure.
- **Benefits:** Enhances alkalinity, reduces inflammation, and supports cellular integrity during detoxification [8,9,29].

Regulatory reforms

- Enforce global bans on toxic chemicals such as DBP and coal tar dyes [16,17].
- Mandate transparency for fragrance ingredients and other undisclosed chemicals [22,23].

Consumer education

- Encourage the use of tools like Think Dirty or EWG's Skin Deep to evaluate product safety [21,29].
- Advocate for plant-based, toxin-free cosmetic alternatives.

Integrated detox strategies

Combine the use of MasterPeace Zeolite Z™ and SOLergy Sea Minerals™ with lifestyle changes, including hydration, sweat therapy, and colon cleansing, to enhance elimination of toxins [27,29,30].

Conclusion

Cosmetic products often contain harmful chemicals that transfect through the interstitium, spreading toxins throughout the body and causing cellular poisoning. Peer-reviewed research supports the use of MasterPeace Zeolite Z™ and SOLergy Sea Minerals™ as effective solutions for chelating and eliminating these toxins. Coupled with regulatory reforms and consumer education, these detox strategies offer a comprehensive approach to reducing the toxic burden from cosmetics [8,9,30].

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