

# 68 DISEASES IDENTIFIED LINKED TO EPITHELIAL BARRIER DEFECT AND MICROBIOME CHANGES

## DISEASES OF THE EPITHELIAL BARRIER DEFECT

DAVOS, SWITZERLAND, October 8, 2024 /EINPresswire.com/ -- MAJOR DISEASES IDENTIFIED THAT ARE LINKED TO EPITHELIAL BARRIER DEFECT AND MICROBIOME CHANGES

Epithelial barrier theory-related diseases, microbial dysbiosis and inflammation

- To explain the growing prevalence of allergic, autoimmune and neuropsychiatric diseases, the epithelial barrier theory is a central focus of worldwide opinion leaders.

- According to the epithelial barrier theory, exposure to environmental toxic substances in humans and animals damages the epithelium, the layer of cells that covers the surface of our

“

These diseases affect more than 2 billion patients and cause a huge socioeconomic burden. It is now possible to prevent and treat them appropriately.”

*Prof. Dr. Cezmi Akdis*

theory share common features, such as increased prevalence after the 1960s or 2000s with the same method of diagnosis, microbial dysbiosis with decreased commensals and increased opportunistic pathogens, immune system activation and inflammation in the affected tissues as

68 diseases associated with the epithelial barrier theory share common features

Skin diseases	Airway diseases	Digestive tract diseases	Neuropsychiatric diseases
Atopic dermatitis	Asthma	Eosinophilic esophagitis	Alzheimer's disease
Alopecia areata	Allergic rhinitis	Periodontitis	Parkinson's disease
Allergic contact dermatitis	Chronic rhinosinusitis	Gastroesophageal reflux disease	Autism spectrum disorders
Irritant contact dermatitis	Chronic obstructive pulmonary disease	Barrett's esophagus	Stress-related psychiatric disorders
Chronic spontaneous urticaria	Idiopathic pulmonary fibrosis	Food allergy	Chronic depression
Psoriasis	Nonallergic rhinitis with eosinophilia syndrome	Food protein-induced enterocolitis syndrome	Ischemic stroke
Rosacea	Sarcoidosis	Inflammatory bowel disease	Migraine
Pemphigus vulgaris	Pulmonary hypertension	Celiac disease	Multiple sclerosis
Bullous pemphigoid	Cystic fibrosis	Irritable bowel syndrome	Amyotrophic lateral sclerosis
Hidradenitis suppurativa		Colonic diverticulosis	
		Microscopic colitis	
Autoimmune, autoinflammatory and metabolic diseases	Ocular diseases	Other diseases	
Graves' disease	Ocular allergy/allergic conjunctivitis	End-stage renal disease	
Hashimoto's thyroiditis	Age-related macular degeneration	Heart failure	
Systemic lupus erythematosus	Dry eye	Myocarditis	
Ankylosing spondylitis	Glaucoma	Osteoporosis	
Granulomatosis with polyangiitis	Uveitis	Anemia	
Autoimmune hepatitis		Hemolytic uremic syndrome	
Behçet's syndrome		Sepsis syndrome	
Rheumatoid arthritis		Severe COVID-19	
Osteoarthritis		Cardiovascular diseases	
IgA Nephropathy		Polycystic ovary syndrome	
Diabetes			
Obesity			
Metabolic dysfunction-associated steatotic liver disease			
Cirrhosis			

In this figure you can see all of the diseases that were identified linked to epithelial barrier defect and microbial dysbiosis linked to epithelial barrier damaging environmental substances

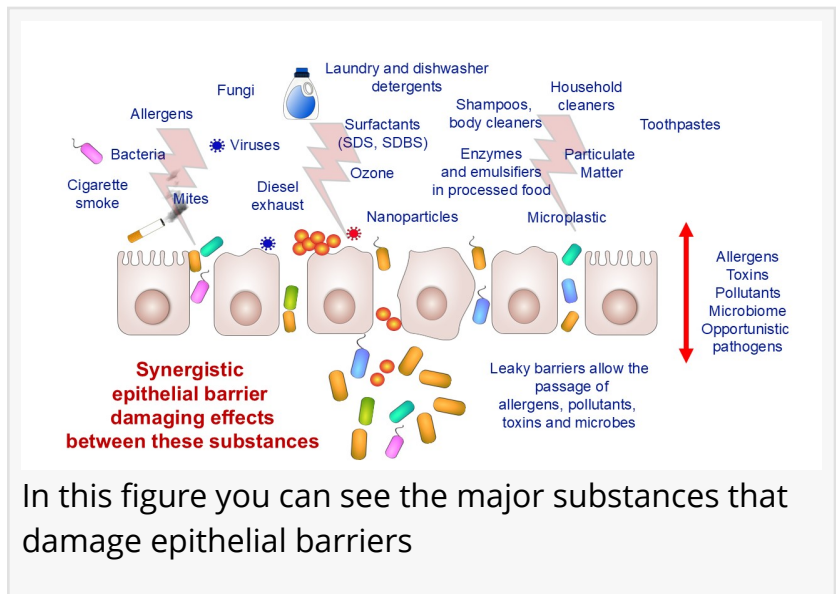
skin, digestive tract, lungs, and eyes. Epithelial barrier dysfunction is induced by together with microbial dysbiosis, immune system activation, along with the development of inflammation in the tissues.

- Together with worldwide opinion leaders, we identified 68 epithelial barrier-related diseases, including skin diseases, airway diseases, digestive tract diseases, neuropsychiatric diseases, autoimmune, autoinflammatory and metabolic diseases, ocular diseases.

- These diseases associated with the epithelial barrier

well as in the circulation.

- In 1960s these diseases were affecting 20-30 million humans which increased by 100 times to 2 billion patients. The world's population increased by 2 times in the meantime.
- With the contribution of 48 international opinion leaders and 642 references this immense study shows the evidence and similarities in the epidemiology, epithelial barrier dysfunction, microbial dysbiosis, and tissue inflammation in 68 diseases that substantially affect the human health.



- The immense increase in the prevalence of these diseases caused a huge healthcare burden consuming more than 10% of the GDP of every country for health care. The increased socioeconomic burden made the healthcare sector the main locomotive of the world's economy.
- The onset and exacerbations of these diseases is attributed to a damaged epithelial barrier and inflammation triggered by hazardous substances originating from industrialization, urbanization and westernized lifestyles, such as air pollution, microplastics, nanoplastics, several surfactant formulations in detergents, household cleaners, dishwashers, hand sanitizers, disinfectants, toothpastes, and processed food emulsifiers and additives. Epithelial barrier damaging agents initiate the crosstalk between the epithelial barrier, microbiota, and an immune response, as reported in numerous studies on the pathogenesis of epithelial barrier-associated diseases.
- The studies presented within our research emphasize the significant implications of the epithelial barrier theory in unraveling the pathogenesis of chronic non-communicable diseases and to elucidate novel strategies for the development of preventive or therapeutic approaches.

Download article here: <https://doi.org/10.1111/all.16318>

Correspondence: Prof. Dr. Cezmi A. Akdis, MD  
Director  
Swiss Institute of Allergy and Asthma Research (SIAF)  
Herman-Burchard-Strasse 9  
CH-7265 Davos Wolfgang  
Phone: +41 78 7388284  
akdisac@siaf.uzh.ch

Web: <https://epithelialbarriertheory.com>

Cezmi Akdis

Swiss Institute of Allergy and Asthma Research

+41 787388284

[email us here](#)

Visit us on social media:

[Facebook](#)

[X](#)

[LinkedIn](#)

[Instagram](#)

---

This press release can be viewed online at: <https://www.einpresswire.com/article/749912901>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2024 Newsmatics Inc. All Right Reserved.