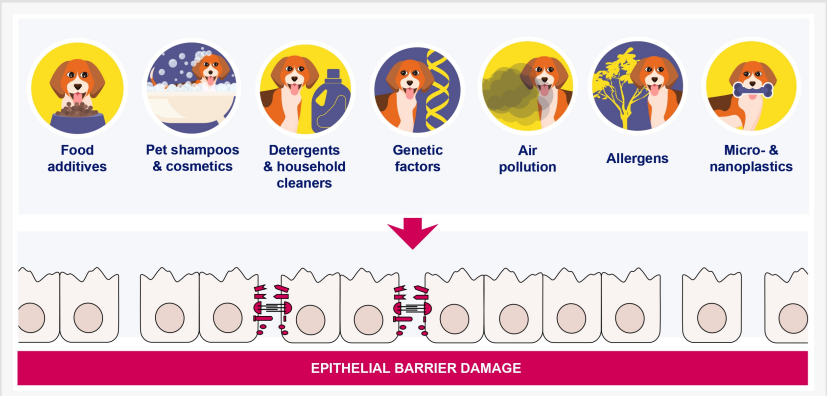
HOW MODERN LIFE ENDANGERS THE HEALTH OF PETS AND FARM ANIMALS

Epithelial barrier dysfunction and associated diseases in companion animals: Differences and similarities between
humans and animals and research needs



Additive	Purpose of usage	Additive	Purpose of usage
Acacia gum	Stabilizer, thickener, gelling agent, binder	Modified starch	Emulsifier
Aluminium silicate	Anti-caking agent	Monosodium glutamate	Flavor enhancer
Anthocyanins	Antioxidant preservative, coloring agent	Patent blue V	Coloring agent
Benzoic acid	Antioxidant preservative, pH adjustment	Pectin	Stabilizer, thickener, gelling agent, binder
Betanin/Beetroot red	Coloring agent	Pentasodium triphosphate	Stabilizer, thickener, gelling agent, binder
Butylated hydroxyanisole (BHA)	Antioxidant preservative	Polyglycerol polyricinoleate (PGPR)	Emulsifier
Butylated hydroxytoluene (BHT)	Antioxidant preservative	Polysorbate 60 (P60)	Emulsifier
Calcium disodium EDTA	Chelating agents	Polysorbate 80 (P80)	Emulsifier
Caramels	Coloring agent	Potassium alginate	Stabilizer, thickener, gelling agent, binder
Carboxymethylcellulose (CMC)	Emulsifier	Potassium sorbate	Antimicrobial preservative
Carmine/Cochineal	Coloring agent	Ponceau 4R	Coloring agent
Carotenoids	Antioxidant preservative	Propyl gallate	Antioxidant preservative
Carrageenan	Emulsifier	Pyrophosphates	Flavor enhancer
Cassia gum	Stabilizer, thickener, gelling agent, binder	Rosemary extract	Antioxidant preservative
Calcium propionate	Antimicrobial preservative	Silicon dioxide	Anti-caking agent
Cellulose derivatives	Stabilizer, thickener, gelling agent, binder, anti-caking agent	Sodium alginate	Stabilizer, thickener, gelling agent, binder
Citric acid	Antioxidant preservative	Sodium aluminosilicate	Anti-caking agent
Disodium 5´-ribonucleotides	Flavor enhancer	Sodium nitrite	Flavor enhancer, antimicrobial preservative
Ethoxyquin	Antioxidant preservative	Sodium sorbate	Antimicrobial preservative
Gelatin	Stabilizer, thickener, gelling agent, binder	Sorbitol	Artificial sweetener
Glutamic acid	Flavor enhancer	Sorbitan monostearate	Emulsifier
Glycerin	Humectant	Soya lecithin	Emulsifier
Guanosine monophosphate	Flavor enhancer	Sulfites	Antioxidant preservative
Guar gum	Stabilizer, thickener, gelling agent, binder	Sunset yellow	Coloring agent
Iron oxides and hydroxides	Coloring agent	Tartrazine	Coloring agent
		Titanium dioxide	Coloring agent
		Xanthan gum	Stabilizer, thickener, gelling agent, binder

DAVOS, SWITZERLAND, October 17, 2024 /EINPresswire.com/ -- HOW MODERN LIFE ENDANGERS THE HEALTH OF PETS AND FARM ANIMALS

- Pets share our environment and are regarded by many as beloved family members. Some reside in gardens, while others live within our homes, even sharing our sleeping spaces.
- The modern world has introduced more than 350,000 new chemicals into our daily lives, many of which become part of the life of domestic animals. Cleaning products, food additives and air pollutants have a major impact on the health of animals.
- Pets are more frequently exposed to disinfectants, shampoos and household cleaning materials. They spend much time lying on the floor, walking barefoot on surfaces, and licking themselves. Pets, being closer to ground level, are also more likely to be affected by environmental pollutants such as dust and residues from cleaning products.
- Substances harmful to humans are subsequently banned, however they are often continued to be used in pet products.
- The huge amounts of microplastic entering the lives of all living things in the world, substantially affect animals. Toys, grooming and hygiene products, and food and water bowls have become essential items for many pet owners. Many of these products contain significant amounts of plastic, which can degrade into micro- and nanoplastic particles that pose major risks to the health of animals.
- As observed in humans, packaged and processed modern food of animals contain several additives and emulsifiers that show toxicity to their gastrointestinal system.
- As environmental conditions continue to change, further research is needed into how these changes affect animal health.

> As extensively seen in humans, animals are harmed by toxic substances in food, chemical products and pollutants. The Epithelial Barrier Theory is proposing solutions for chronic diseases in animals."
>
> *Prof. Dr. Cezmi Akdis*

• The "Epithelial Barrier Theory" suggests that the growing prevalence of allergic, autoimmune, and other chronic conditions is rooted in increased exposure to agents that compromise the integrity of epithelial barriers. This increased exposure is primarily associated with factors linked to industrialization, urbanization, and the pressures of modern life, including pollution, dietary changes, stress, and widespread use of cleaning products, chemicals and antibiotics. As a result, various harmful substances, including toxins, allergens, and pathogens, can cross these weakened barriers more easily, interacting with the immune system and cause allergic, autoimmune, and neuropsychiatric diseases—all of which have become more prevalent in recent decades.

• The epithelial barrier theory brings attention to the hidden dangers that threaten the health of both humans and animals. Negative impacts on the environment inevitably affect human and animal health, reflecting the core idea behind the One Health concept.

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