Summary Basic Knowledge.

The ALCATTEST is an immune-stimulation test, in which the blood cells of the patient are confronted with up to 460 food and chemical substances, and the cell changes in immune cells (mainly neutrophils, and lymphocytes) are measured. The underlying mechanisms are non-- allergic and are mostly based on the innate immune response.

In case of such "inflammatory intolerance reaction" defense mechanisms are activated that cause inflammation and usually represent a useful effective defense strategy in the event of an acute infection or directed as a defense against pathogens. But with chronicity of the process as a result of recurring stimuli, it can also lead to gastrointestinal patho-

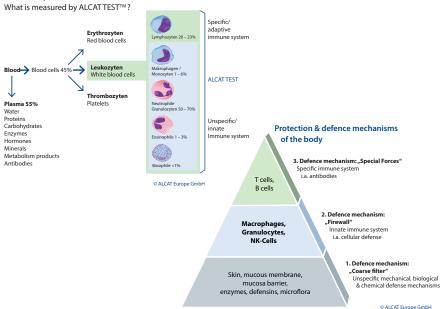
logies, problems with skin, respiratory tract or joints, as well as obesity or the metabolic syndrome.

The Inflammsome, particular signaling pathways and the activation of pattern recognition receptors of the innate immune system have been investigated in detail in recent

Based on almost 30 years of research and development, many clinical successes were achieved using the ALCAT Test. The effectiveness of the method is proven in numerous studies, including double-blind challenges. Studies have confirmed that a significant reduction in symptoms or a complete elimination of symptoms occurs after avoiding the problematic foods and additives.

For detailed information we would like to refer to our scientific dossier on the ALCAT Test.

Blood composition



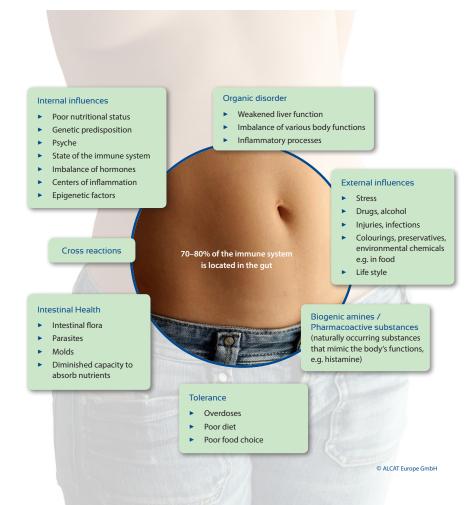




FOOD INTO FRANCE IS MULTIFACTORIAL

The ALCATTEST identifies individual celular responses Many of the internal and external influences have an efto substances derived from food and the environment, which can interfere with the immune balance and health.

fect on the immune system. The ALCAT Test provides the basis for an optimized targeted nutrition to support the immune balance.



THE NON SPECIFIC CELLULAR RESPONSE -

inflammation following food intolerance

CONSEQUENCE **TRIGGER ACTIVATION** ALCAT TEST™ **HEALTH EFFECTS** signal transduction pathways Initiation and sustainment Complement system Cell volume increase: Systemic activation of inflammatory reactions: of innate immunity: ► Due to cell activation, e.g. **VIRUSES** production of mediators in the cell Impairment of the body (immu-Pattern-recognition ne system, metabolism, organ Cell volume decrease: receptors (PRR): Degranulation Chemotaxis **BACTERIA** Physical and psychic fatique ► TLR receptors Beginning of apoptosis ▶ NOD receptors Autophagy Cell activation Chronic ► RIG1 Helicase **FUNGI** manifestation: Diminished cell count: ► Lectin receptors Sustainment of the Apoptosis ► Fc receptors inflammatory process Necrosis **FOOD** ► Galectin Symptom development Pyroptosis **PARTICLES** ► Tissue damage due to oxidative stress Inflammasome **TOXINS** activation ► PAMP (pathogen associated molecular patterns) **STRESS** Pyroptosis/Necrosis AIM: ► DAMP (danger associated e.g. molecular patterns) Stopp inflammation! damaged DNA Cytokine secretion Phagocytosis (e.g. TNFa, IFNy, interleukins) proteins, changed in structure oxidative stress **ACTIVATION OF** ACTIVATED THE SPECIFIC **NEUTROPHIL IMMUNE SYSTEM GRANULOCYTE** © ALCAT Europe GmbH