



Imuno TF®

The definitive option to enhance
immunological defense

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The immune system

The immune system consists of a set of specialized cells, tissues and molecules that intermediates the immune response and promotes both resistance to infections and defense against tissue damage. In this sense, the immune system protects the body from: (i) external threats such as bacteria, viruses, parasites and fungi; and (ii) internal threats such as from cell mutations that could potentially cause cancer. Therefore, its optimal functioning is a preponderant factor for health preservation.¹

What are transfer factors

Transfer factors (TF) are part of the immune system, and they act as a unique type of messenger used in cell-to-cell communication. They behave as hybrids between interleukins and antibodies, carrying messages from one cell to another (like interleukins), and also binding to antigens in a similar manner to what antibodies do.²

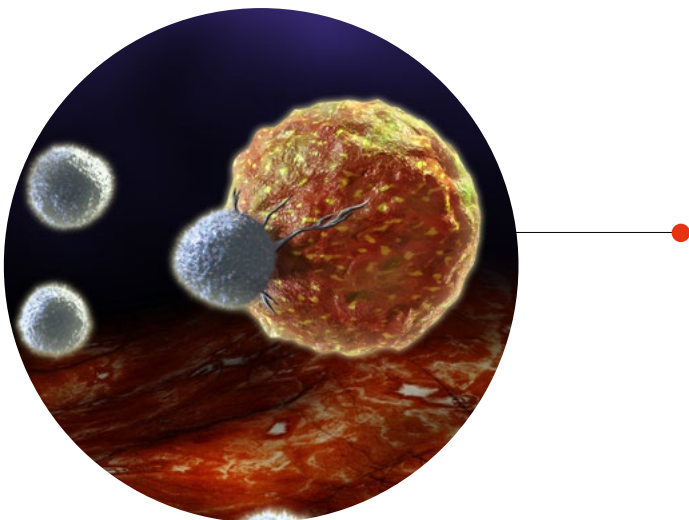
They consist of small natural peptides which are non-species-specific, i.e., TF produced in one animal species is effective in another animal species (they are composed of oligoribonucleotides attached to a peptide molecule inherent in all animal organisms). Natural TF are synthesized by the exposure of the human (or animal) body to pathogens, and they are produced as low molecular weight molecules (3500-6000Da).³⁻⁹



Presenting: Imuno TF®, the isolated TF

Imuno TF® is composed exclusively of isolated TF. Traditional products from the market are composed of extracts from natural sources of TF, such as lyophilized glands or colostrum, which can have contaminants or molecules with high molecular weight.

Unlike these products, the technological process involved (ultrafiltration) in production of Imuno TF® guarantees that the final product obtained is actually the isolated TF, and that its molecule does not exceed 6000kDa (better bioavailability). This makes Imuno TF® a safer product, without the regular contaminants of traditional extracts.



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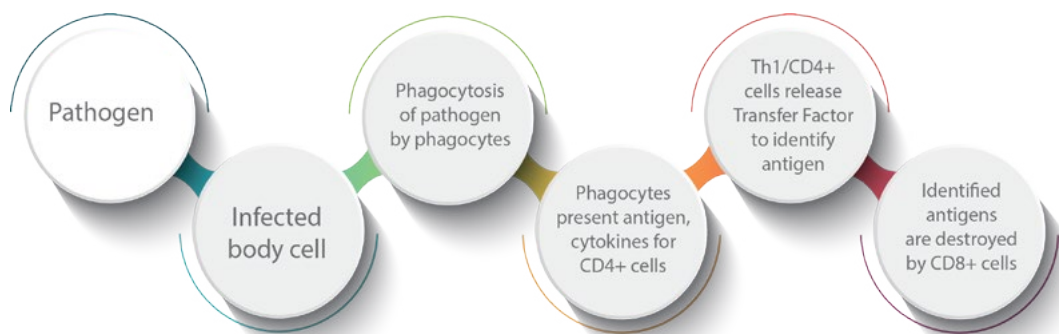
How does Imuno TF® work?

In short, Imuno TF® has the same mechanism of action as natural TF. It modulates the immune system by stimulating it against threats from invading microorganisms or tumor cells, while avoiding immune hyperresponsiveness and autoimmune reaction.

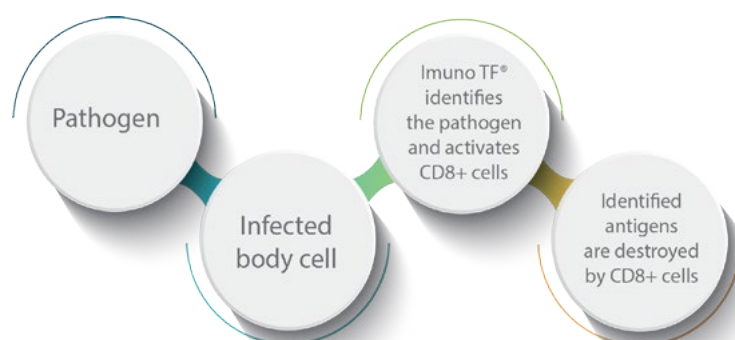
The natural immune response is the causal factor for the production of TF, and they are produced in T helper cells. After the TF are released, the activity of the immune system is influenced in a number of pathways. The presence of TF is understood by the other cells involved in the immune system as an indication that T helper cells (Th1 immunity) are active in the fight against the pathogen, thus stimulating the production of new T

helper cells, natural killer cells, macrophages, cytotoxic T cells, and the conversion of young lymphocytes into related Th1 immune cells. The increase of Th1 cells, in turn, suppresses the production of Th2 cells and their related cytokines such as IL-4, IL-5, IL-6 and IL-13, while there is an increase in Th1 related cytokine levels (essentially IFN- γ) and a general strengthening of the Th1 response.^{2,8}

Typical immune response in normal conditions

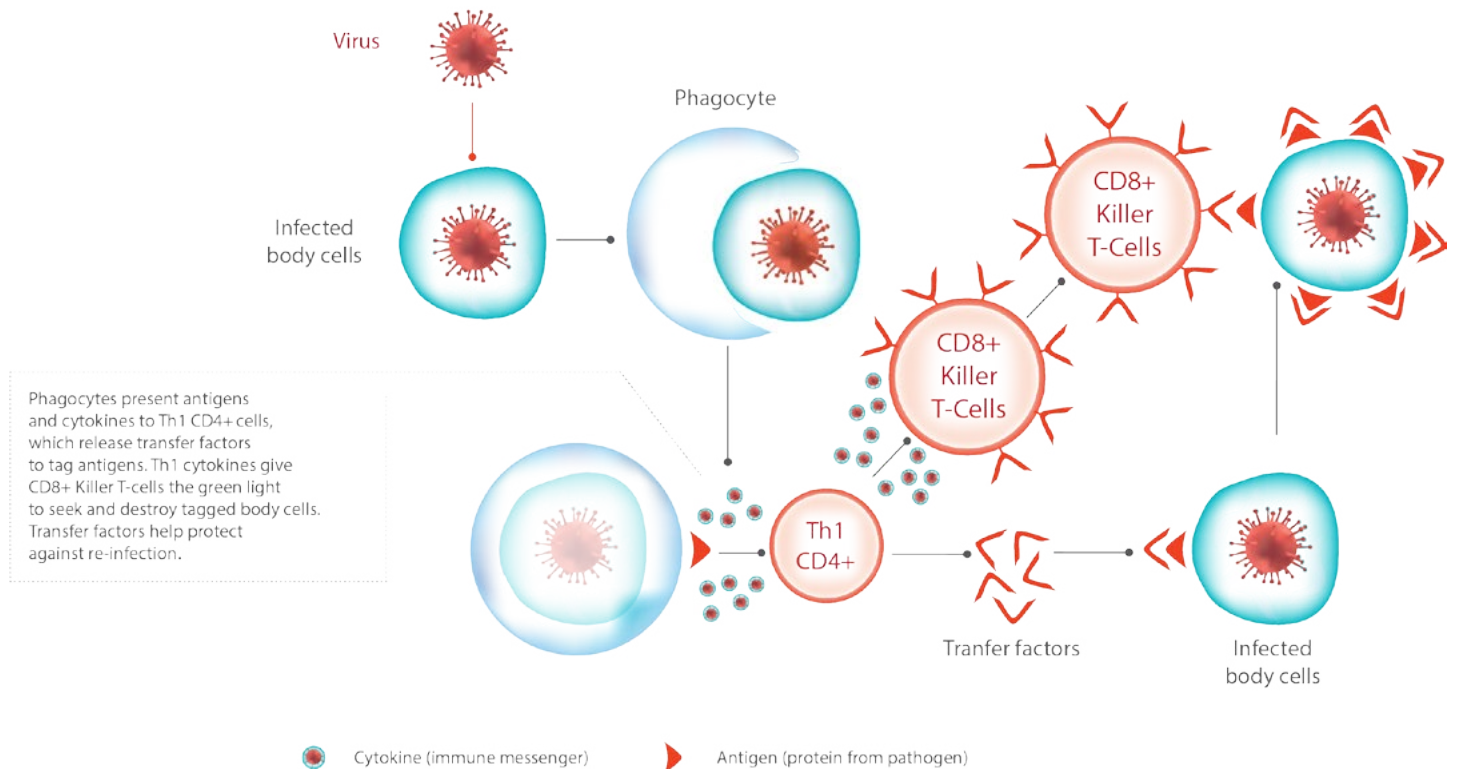


Typical immune response with Imuno TF®



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Basic model of cellular-mediated (Th1) immunity with a virus as the pathogen



From White AM. (2009). *A guide to transfer factors and immune system health*, 2nd edition. North Charleston, SC: BookSurge.

What are the indications of Imuno TF®?

The main goal of using Imuno TF® is to strengthen the immune system. In this way, opportunistic diseases can be prevented, specially in immunocompromised individuals. It can also act as coadjuvant in the treatment of chronic diseases; prevention of autoimmune diseases in predisposed individuals; and decrease the rate of recurrent infections.

Indications (adjuvant, prophylactic and preventive treatment)

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| <div style="background-color: red; color: white; border-radius: 50%; width: 60px; height: 60px; display: flex; align-items: center; justify-content: center; margin: 0 auto 20px auto;">01</div> <p>Immunomodulation: regulation and increase of cellular immune function.</p> | <div style="background-color: red; color: white; border-radius: 50%; width: 60px; height: 60px; display: flex; align-items: center; justify-content: center; margin: 0 auto 20px auto;">02</div> <p>Immunodeficiency: increase of phagocytic cells, CD8+ and IL2 T lymphocytes.</p> | <div style="background-color: red; color: white; border-radius: 50%; width: 60px; height: 60px; display: flex; align-items: center; justify-content: center; margin: 0 auto 20px auto;">03</div> <p>Coadjuvant in treatment of: viral, fungal and bacterial infections; skin and mucosal infections (herpes simplex, herpes zoster, candidiasis, condyloma, contagious mollusc, flat warts); infections secondary to insect bites; malignant tumours (regulation of immunity).</p> |
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04

Veterinary: adjuvant in antibacterial therapies, immunomodulator in the innate and adaptive immune response, repetitive infections (viral/fungal or bacterial), pre and post-surgical immunological reconditioning.

05

Respiratory diseases: rhinitis, sinusitis, tonsillitis, colds and flu, asthmatic bronchitis.

06

Autoimmune diseases, chronic fatigue.

Is ImunoTF® safe?

- No significant adverse effects have been reported so far. The use of Imuno TF® is safe for adults for short periods (up to 3 months) or prolonged periods (up to 2 years) and for children (up to 6 months).
- Adverse reactions are rare. Some people may have a fever episode, or typical flu symptoms, nausea and gastrointestinal symptoms.
- There is not enough information on the use of the TF during pregnancy and breastfeeding. Avoiding using it during these periods.

What are the evidences of Imuno TF® TMuse?

Here you can find a list of different outcomes the use of TF can provide.

Clinical condition	Observed effect
Alopecia aerata	A group of 10 patients with alopecia areata was treated by transfer factor. The treatment was successful in 5 patients in whom the growth of hairs was observed within half of a year after the treatment; in the next year no recidivism of the disease has been observed. ^{10,11}
Allergic asthma	Reduction of the use of glucocorticoids. ¹²
Allergic rhinitis	Improvement of symptoms. ¹³
Atopic dermatitis	Reduction of peripheral eosinophils and IgE levels. ^{14,15}
Beçhet's syndrome	TF therapy have showed improved the condition in same patients. ¹⁶
Cervical cancer	Reduction of post-hysterectomy recurrences. ¹⁷
Chronic Fatigue Syndrome related to viral infection	Reduced associated viral activity, increased T-cell count and improved clinical symptoms. ¹⁸
Chronic mucocutaneous candidiasis	Restoration of cellular immunity. ¹⁹

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Clinical condition	Observed effect
Coccidioidomycosis	Notable improvement in immune response with TF adjunct treatment. ²⁰
Crohn's Disease	Clinical improvement; significant decrease in the activity index score of the disease. ^{21,22}
Epstein-Barr virus/ cytomegalovirus infection	Clinical symptoms and viruria disappeared and specific immunity to cytomegalovirus was developed. ²³
Extrinsic bronchial asthma	Reduction of the frequency and intensity of crisis, reduction of IgE concentrations. ²⁴
Gastric cancer	Clinical improvement; increase of CD3+, CD4+, CD8+, NK cells. Positive changes to normal TNF- α and IL-1b levels. ²⁵
Glioma (tumor cerebral)	Reduced tumor size, increased CD2+, CD4+, CD8+ and NK and apoptotic tumor cells. ²⁶
Hepatitis C	Stimulates Th1 immune response, which helps to remove viral particles. ^{27,28}
Herpes simplex virus	T cell function improvement. ^{29,30}
Herpes-zoster	Immunomodulatory effect, increased IFN- γ and CD4+ cell counts in the TF-treated group. ^{31,32}
HPV infections	TF have stimulated innate immunity of cervical mucosae, diminishing chronic cervicitis in HPV-infected patients. ³³
HIV	Increased levels of T helper cells and cytotoxic T cells. ³⁴
Influenza	Anti-influenza virus properties. ³⁵
Leishmaniasis	Notable improvement. ⁷
Lung cancer	Increased survival rate. ³⁶
Mycoplasma pneumonia	Relieved the systemic inflammatory response and reduced the coagulation system and humoral immune system function damage in children with mycoplasma pneumonia. ³⁷
Opportunistic infections in cancer patients (leukemia)	Therapeutic control of opportunistic infections (fungal, viral and mycobacterial). ³⁸
Osteosarcoma	Increased cytotoxicity cell mediated. ³⁹
Pediatric infections produced by various pathogenic germs	Improves the treatment. ⁷
Prostate cancer	Increased survival rate. ⁴⁰
Sinusitis, pharyngitis and Otitis Media	Total or partial resolution. ⁷
Toxoplasmosis	Notable improvement. ⁷
Tuberculosis	Improvement in treatment. ^{31,41}
Varicella (chickenpox) with acute leukemia in children	Partial immunoprotection. ⁴²
Wiskott-Aldrich's syndrome	Increase of C3 level to normal values, absence of new infections, absence of eczema. ⁴³

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What is the dosage of Imuno TF®?

The usual dose of FT varies according to the specification available and the route of administration used. **Typically:**



Adults

Capsules: 25-50 mg, twice a day (50-100 mg/day).

Oral solution: 10-20 mg, 2-3 times a day (20-60 mg, total).

Sublingual drops or sublingual spray ("oral vaccine"): 10mg sublingual, 2-3 times a day.

Veterinary (dogs and cats)

Oral solution: (0.1mg/kg, twice a day).

Child

Oral solution: (10mg, 2x / day (total daily dose of 20mg).

Sublingual drops or sublingual spray ("oral vaccine"): 10mg sublingually, twice a day.

Which is the frequency of administration of Imuno TF®?

It is often advised for patients with chronic pathologies to start oral supplementation with TF slowly, in terms of one or two weekly doses. For healthy patients, daily doses are well tolerated. Although TF can be given daily, it does not necessarily need to be taken every day, according to studies where the doses were distributed over the weeks or months with the observed health improvement. For example, TF (orally) could be taken from Monday to Friday with a weekend break. In addition, treatment could be done in alternate months. Daily dose schedules (2-3 times a day) within 14-day periods repeated each month can also be adopted.^{2,25}



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Example of formulation

1. Capsules with Imuno TF®

Imuno TF®	25-50mg
Excipient*, qs	1 capsule

30 capsules
**Excipient: colloidal silicon dioxide 0.5%, maltodextrin qs.*
Dosage: 1 capsule, twice a day.

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