



Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z

Genetic Tests

SEARCH TESTS BY GROUP SEARCH GENES A-Z

Shop online

Blog

Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z
Genetic Tests
SEARCH TESTS BY GROUP SEARCH GENES A-Z

Shop online

Our Health /

Autoimmune Diseases

Allergies

Men's Health

Women's Health

Nutrition

Metabolism / Obesity

Fitness

Dermatology

Anti-Aging

Well-Being

Sleep

Cardiology

Neurology / Psychiatry

Infections

Pediatrics



Food Intolerance - TrophoScan® 23-01-2018

Histamine Intolerance: Everything you need to know

Do you experience unexplained headaches or severe stress? Does your face blush too much when you drink red wine? Is your menstrual cycle irregular? Do you have an itchy tongue and mouth or a runny nose when eating bananas, avocados, or aubergines? If you answered yes to any of these questions, then you may have histamine intolerance.

What is histamine?

Histamine is a chemical involved in the functions of the **immune system**, the **gastrointestinal tract**, and the **central nervous system**. As a neurotransmitter, it transmits important messages from the body to the brain while stimulating the secretion of acid in the

[Diagnostic Tests](#)
[SEARCH CHECK UPS SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#)
[SEARCH TESTS BY GROUP](#)
[SEARCH TESTS A-Z](#)
[Genetic Tests](#)
[SEARCH TESTS BY GROUP](#)
[SEARCH GENES A-Z](#)

[Shop online](#)

Otorhinolaryngology (ENT)	the role of histamine in the body is to elicit an
Food Supplements	immediate inflammatory response. It serves as a red
Scientific News	flag for the immune system, informing the body of
Intestinal Microbiome -	potentially dangerous situations.
Food Intolerance -	Histamine causes blood vessels to dilate so that white
Immune System -	blood cells can quickly find and attack the infectious
Infertility - SpermaScan®	agent or foreign substance. The high concentration of
Hormones -	histamine is what causes the headache, the feeling of
Nervous System Testing -	hot flashes, and itching and affects the mood. This is
Vaginal Microbiome -	part of the body's natural immune response, but if the
Oxidative Stress -	histamine is not removed quickly and effectively, then
Vitamins & Micronutrients	histamine intolerance can occur.
Heavy Metals - Metals &	Because histamine is transported through the
Heart and Vascular Health	bloodstream, it can affect the gut, lungs, skin, brain, and
Pathologic Conditions	entire cardiovascular system, contributing to a wide
COVID-19	range of signs and symptoms that are often difficult to
	detect and to be diagnosed.
	Common symptoms of histamine intolerance
	The most common symptoms of histamine intolerance are:

Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z
Genetic Tests
SEARCH TESTS BY GROUP SEARCH GENES A-Z

[Shop online](#)

-
- Abdominal cramps
 - Hot flushes
 - Nasal congestion, sneezing, difficulty breathing
 - Irregular menstrual cycle
 - Urticaria
 - Fatigue
 - Tissue swelling

What can cause high histamine levels?

- Allergies (via IgE antibodies)
- Small intestine bacterial overgrowth (SIBO)
- Leaky gut syndrome
- Gastrointestinal bleeding
- Fermented spirits such as wine, champagne, and beer
- Diamine oxidase deficiency (DAO)
- Foods rich in histamine

In addition to the histamine produced in the body, there are also **(1)** foods that naturally contain high amounts of histamine, **(2)** foods that cause a large release of endogenous histamine, or **(3)** foods that inhibit the action of the enzyme that breaks down histamine, Diamine oxidase (DAO).

Foods rich in histamine

Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z
Genetic Tests
SEARCH TESTS BY GROUP SEARCH GENES A-Z

[Shop online](#)

-
- › Sour foods: sour cream, sour milk, buttermilk, etc.
 - › Dried fruits: apricots, plums, dates, figs, raisins
 - › Most citrus fruits
 - › Aged cheeses, including goat's cheese
 - › Nuts: walnuts, cashews, and peanuts
 - › Vegetables: avocado, aubergine, spinach, tomato
 - › Smoked fish and certain fish species: mackerel, tuna, anchovies, sardines

[Foods that cause histamine release](#)

- › Alcohol
- › Bananas
- › Chocolate
- › Cow's milk
- › Walnuts
- › Papaya
- › Pineapple
- › Shells
- › Strawberries
- › Tomatoes
- › Wheat germ
- › Many preservatives and dyes

[Foods that inhibit the enzyme diamine](#)

Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z
Genetic Tests
SEARCH TESTS BY GROUP SEARCH GENES A-Z

Shop online

key is freshness!

Foods low in histamine

- > Freshly cooked meat, poultry (frozen or fresh)
- > Fresh fish
- > Eggs
- > Gluten-free cereals: rice, quinoa
- > Fresh fruits: mango, pear, watermelon, apple, kiwi, melon, grapes
- > Fresh vegetables (with the exception of tomatoes, spinach, avocado, and eggplant)
- > Milk substitutes: coconut milk, rice milk, almond milk
- > Cooking oils: olive oil, coconut oil
- > Leafy vegetables
- > Decoctions (with the exception of tea)

Histamine degradation

Once histamine is formed, it is either stored or degraded by an enzyme. Histamine in the central nervous system is mainly broken down by the enzyme histamine N-methyltransferase (HMT), while histamine in the digestive system is mainly broken down by the enzyme diamine oxidase (DAO). Although both enzymes play an

Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z
Genetic Tests
SEARCH TESTS BY GROUP SEARCH GENES A-Z

[Shop online](#)

[Histamine intolerance](#)

- Leaky gut syndrome
- Small intestine bacterial overgrowth (SIBO)
- Foods that block diamine oxidase: alcohol, energy drinks, tea
- Inflammation due to Crohn's disease, ulcerative colitis, and other intestinal inflammations
- Taking certain medications such as:
 - Non-steroidal anti-inflammatory drugs
 - Antidepressants
 - Immunoregulators and immunomodulators
 - Antiarrhythmics
 - Antihistamines
 - H2 histamine receptor Antagonists (e.g. Zantac)

Although H2 histamine receptor antagonists, a class of drugs that reduce stomach acid production, appear to be able to help prevent histamine intolerance, in fact, these drugs may lower diamine oxidase levels in the body.

Laboratory tests to investigate histamine intolerance

At Diagnostiki Athenon we can measure both [histamine](#) and [diamine oxidase \(DAO\)](#) levels with a blood sample.

Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z
Genetic Tests
SEARCH TESTS BY GROUP SEARCH GENES A-Z

[Shop online](#)

histamine).

How can histamine intolerance be treated?

The first step in treating histamine intolerance is to remove all foods with high histamine concentrations for 1-3 months. In addition, the patient can take DAO supplements with each meal. (**Note: Diamine oxidase supplements** are intended to increase DAO in the digestive tract and enhance the breakdown of histamine in the digestive tract. Unlike vitamins, minerals, and other nutrient supplements, DAO supplements do not enter the bloodstream and therefore do not increase the concentration of Diamine Oxidase inside the body. DAO supplements should be taken just before meals, as they have a short half-life - the time it takes for the enzyme to become inactive. The effect of DAO supplements is limited to the histamine degradation of foods with which they are mixed and for a fairly short period of time, as the food passes through the digestive tract.

The most important step is to **find the cause of histamine intolerance**. If patients are taking medication that may cause histamine intolerance, they should ask their doctor if the medication is really needed and if it

Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z

Genetic Tests

SEARCH TESTS BY GROUP SEARCH GENES A-Z

Shop online

levels return to the optimal level.

More information on histamine receptors

Histamine is classified as an **amine** because it is based on the structure of ammonia and is formed by the decarboxylation of the amino acid **histidine**. Histamine is an **autacoid**, i.e., it acts in a similar way to a local hormone, close to the site of its synthesis.

Histamine exerts its effects by binding to histamine receptors on the cell surfaces. There are four types of histamine receptors: H1, H2, H3, and H4. The binding of histamine to its receptors stimulates them, resulting in the production of functional responses in these cells.

➤ The **histamine H1 receptor** plays an important role in the **allergic reaction** and is widely distributed throughout the **peripheral nervous system**, especially the smooth muscle fibers, where their activation causes vasoconstriction. Activation of H1 receptors also causes dilation of blood vessels, increased vascular permeability, and stimulation of sensory nerves in the airways, and bronchospasm. In addition, activation of these receptors promotes eosinophil

[Diagnostic Tests](#)
[SEARCH CHECK UPS SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#)
[SEARCH TESTS BY GROUP](#)
[SEARCH TESTS A-Z](#)
[Genetic Tests](#)
[SEARCH TESTS BY GROUP](#)
[SEARCH GENES A-Z](#)

[Shop online](#)

arteries. Activation of the H2 receptor stimulates vasodilation and the release of gastric acids required for digestion. Natural H2-receptor responses include decreased chemotaxis and neutrophil and basophil activation, T cell stimulation, lymphocyte proliferation, and NK cell activity. The combined activation of H1 and H2 receptors contributes to a runny nose and swelling of the nasal airways.

- **Histamine H3 receptor** is a presynaptic autoreceptor found in histamine-containing nerve cells. It is widely distributed throughout the **central nervous system**, with a greater presence in the cortex, caudate nucleus, thalamus, hypothalamus, olfactory cortex, and hippocampus. The wide distribution of the H3 receptor throughout the cerebral cortex suggests that this receptor is capable of regulating many neurotransmitters such as dopamine, GABA, acetylcholine, and norepinephrine in the central and peripheral nervous systems.
- The **histamine H4 receptor** is primarily found in **cells and tissues of the immune system** including the white blood cells of the peripheral blood, spleen, bone marrow, and thymus. It is also found in the large intestine, the lungs, and the liver. Stimulation of this receptor also induces eosinophil chemotaxis

Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z
Genetic Tests
SEARCH TESTS BY GROUP SEARCH GENES A-Z

[Shop online](#)

inhibit gastric acid secretion and are used to treat peptic ulcers.

Controlling of H4 receptor is a research goal for the treatment of allergic and inflammatory conditions such as asthma and allergic rhinitis. The ability of the H3 receptor to regulate various neurotransmitters makes it an important potential target in the research for the relief of the symptoms caused by various conditions, such as various movement disorders, obesity, schizophrenia, sleep disorders, attention deficit hyperactivity disorder (ADHD).

References

Dyer J, Warren K, Merlin S, Metcalfe DD, Kaliner M. Measurement of plasma histamine: description of an improved method and normal values. J Allergy Clin Immunol 1982;70:82-87

Hershko AY, Dranitzki Z, Ulmanski R, Levi-Schaffer F, Naparstek Y. Constitutive hyperhistaminaemia: a possible mechanism for recurrent anaphylaxis. Scand J Clin Lab Invest 2001;61:449-452

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)
[Genetic Tests](#)
[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

Maintz L, Novak N. Histamine and histamine intolerance. Am J Clin Nutr 2007;85:1185-1196

Wohrl S, Hemmer W, Focke M, Rappersberger K, Jarisch R. Histamine intolerance-like symptoms in healthy volunteers after oral provocation with liquid histamine. Allergy and Asthma Proc 2004;25(5):305-311

Worm M, Fiedler EM, Dolle S, Schink T, Hemmer W, Jarisch R, Zuberbier T. Exogenous histamine aggravates eczema in a subgroup of patients with atopic dermatitis. Acta Derm Venereol 2009;89(1):52-56

Share it

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

[Diagnostic Tests](#)
[SEARCH CHECK UPS](#) [SEARCH ALLERGENS](#)
[SEARCH TESTS A-Z](#)
[Andrology Tests](#)
[SEARCH TESTS A-Z](#)
[Preventive Tests](#)

[SEARCH TESTS BY SYMPTOM](#) [SEARCH TESTS BY GROUP](#) [SEARCH TESTS A-Z](#)

[Genetic Tests](#)

[SEARCH TESTS BY GROUP](#) [SEARCH GENES A-Z](#)

[Shop online](#)

Diagnostic Tests
SEARCH CHECK UPS SEARCH ALLERGENS
SEARCH TESTS A-Z
Andrology Tests
SEARCH TESTS A-Z
Preventive Tests

SEARCH TESTS BY SYMPTOM SEARCH TESTS BY GROUP SEARCH TESTS A-Z

Genetic Tests

SEARCH TESTS BY GROUP SEARCH GENES A-Z

[Shop online](#)

