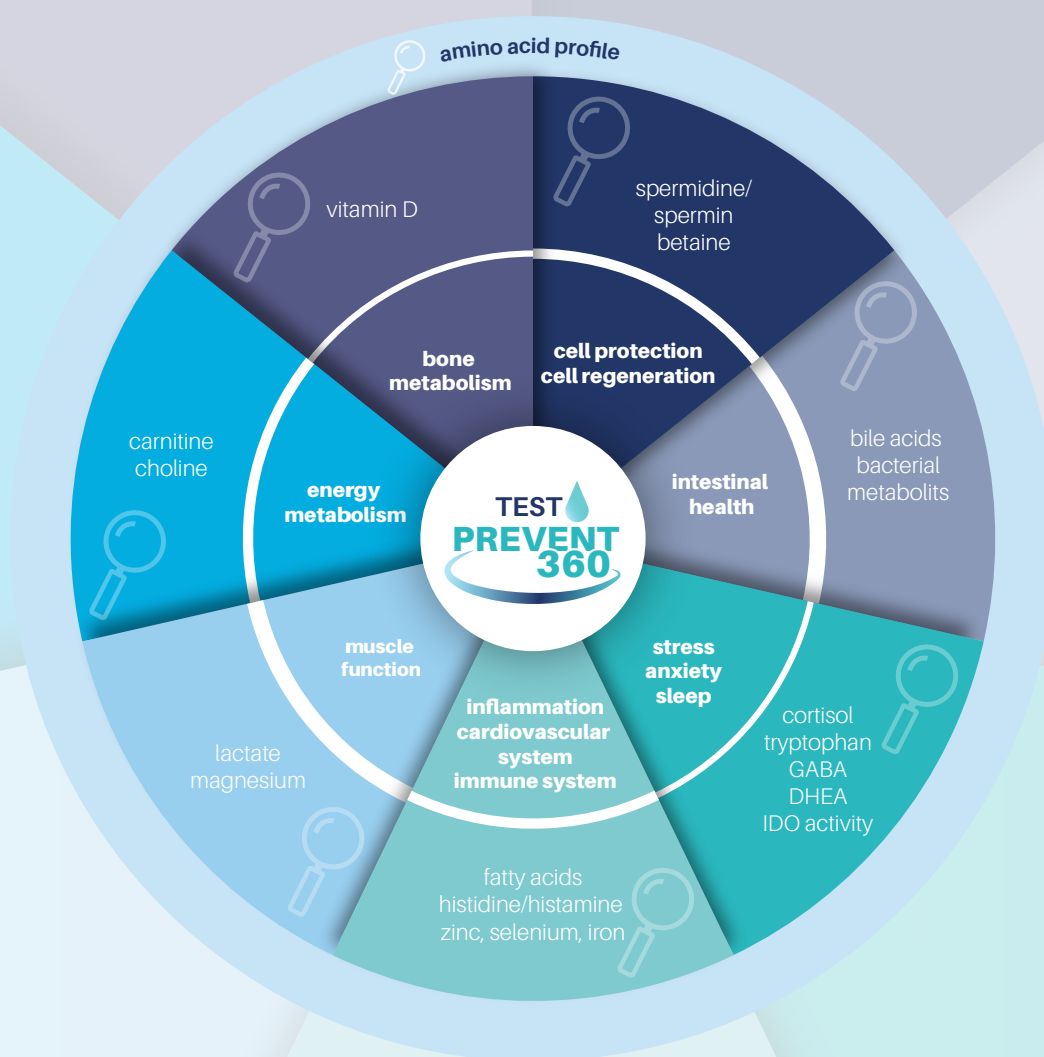


NEW

Test Prevent 360



DETERMINE 75 DIFFERENT PARAMETERS
WITH ONLY 120 µl CAPILLARY BLOOD.

TEST PREVENT 360

Chronic illnesses are becoming increasingly common and represent a considerable burden in everyday life for many people. Preventive medicine can help reduce the risk of these illnesses and improve overall health. Our test, Prevent 360, offers the opportunity to assess numerous parameters with just one blood sample, providing a comprehensive insight into the patient's health.

This unique combination of standard markers and specific biomarkers covers the following areas:

- Gut health
- Energy and lipid metabolism
- Muscle function
- Cardiovascular system
- Inflammation
- Immune system
- Stress-associated diseases
- Sleep health
- Allergic reactions
- Bone metabolism
- Mood regulation and CNS performance
- Protein synthesis
- Acid-base balance
- Anti-ageing and autophagy
- Nitrogen metabolism
- Fatty acids, including omega-3 and omega-6
- Magnesium, iron, selenium, zinc
- 25-OH-Vitamin D3

HERE YOU WILL FIND:

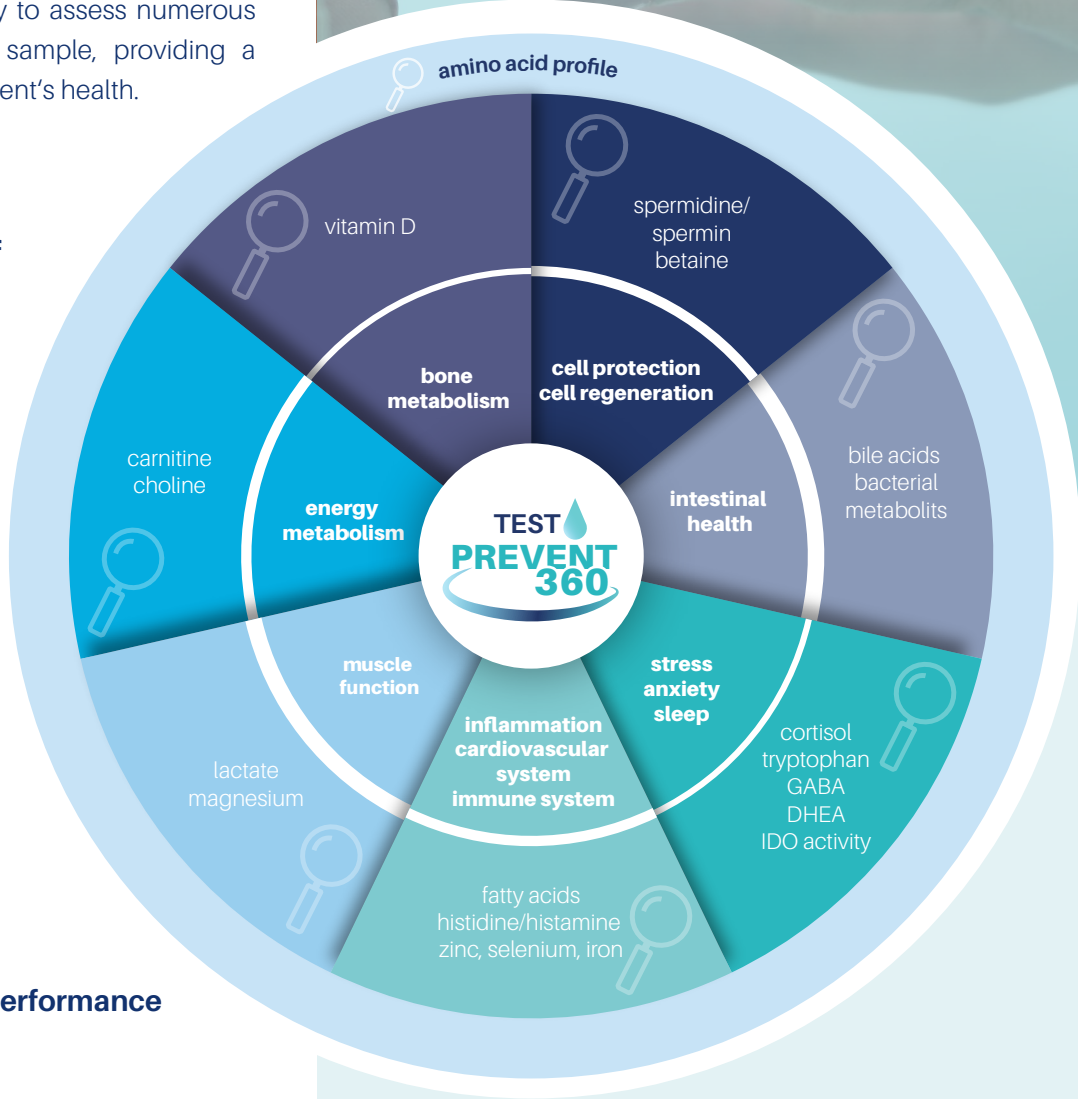


The test instruction



The test instruction video

TEST PREVENT 360 -
DETERMINE 75 DIFFERENT
PARAMETERS WITH ONLY
120 µl CAPILLARY BLOOD.



ADVANTAGES

The key advantage of this testing approach is that it allows for the determination of many parameters from a small amount of capillary blood. This makes the test suitable for minimally invasive diagnostics, which can easily be performed by patients at home or by practitioners who prefer not to take venous blood samples.

75

75 PARAMETERS
WITH A SINGLE
BLOOD SAMPLE



CAN BE DONE
FROM HOME

AMINO ACIDS

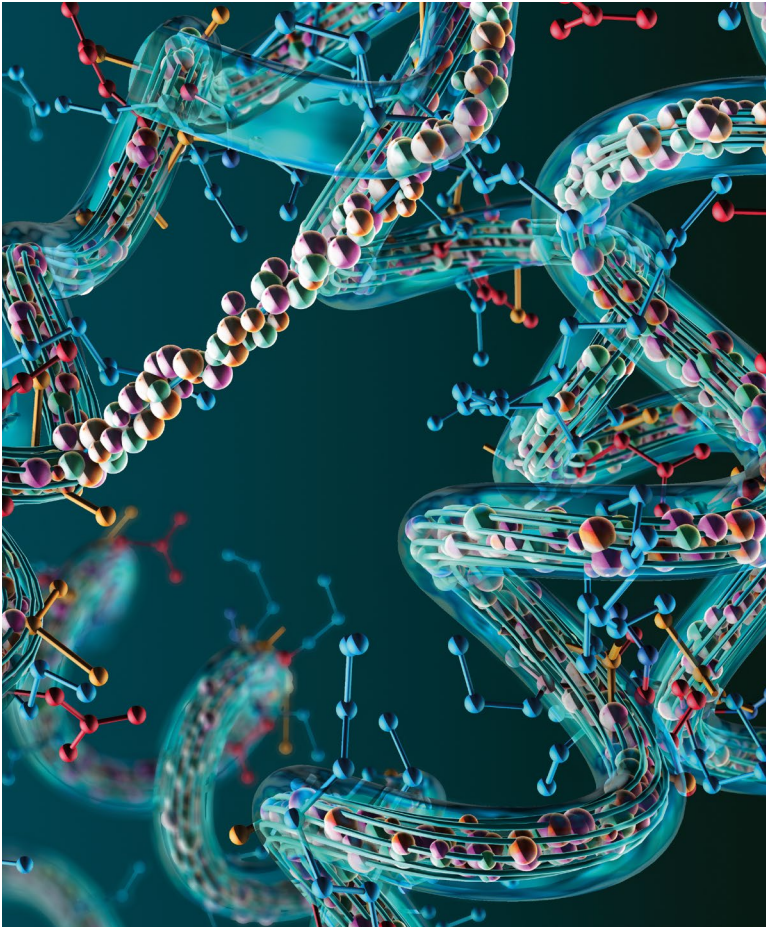
Amino acids are the building blocks of proteins and are essential for many biological processes. They play a crucial role in regulating pH levels and transmitting biological signals within the human body. Additionally, amino acids can serve as an energy source, particularly during periods of fasting or intense physical activity. Each amino acid has unique functions that contribute to overall health and body function.

Amino acids have a wide range of effects:

- Muscle function
- Mood
- Sleep
- Energy metabolism
- Blood pressure
- Protein synthesis
- Wound healing
- Blood sugar levels
- Gut mucosa health

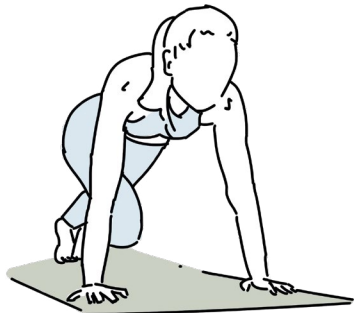
NOTE:

If the patient has impaired liver and/or kidney function, amino acid supplements should only be taken under medical supervision.



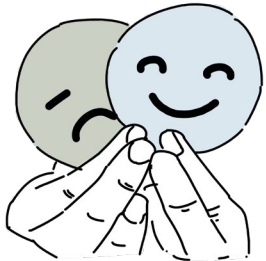
Muscle function

The amino acids **isoleucine**, **leucine**, and **valine** are known as branched-chain amino acids (BCAAs). BCAAs constitute a significant portion of the total amino acids in muscle proteins and play a crucial role in muscle function.



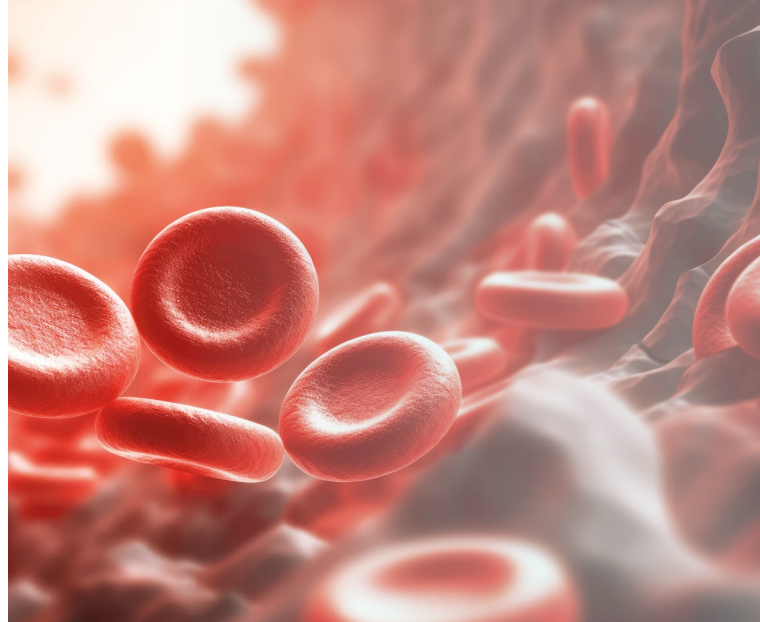
Neurotransmitters

Phenylalanine, **tyrosine**, and **tryptophan** are aromatic amino acids that serve as precursors for the synthesis of neurotransmitters and hormones. Deficiencies in these amino acids can lead to various health issues, including mood disorders, sleep problems, and metabolic disorders.



Blood flow and ammonia detoxification

Citrulline and **arginine** play crucial roles in nitric oxide (NO) metabolism and the urea cycle. NO is a signalling molecule that helps enhance blood flow and regulate blood pressure.



Energy metabolism and immune system

The amino acids **alanine**, **asparagine**, **aspartic acid**, **glutamic acid**, **glutamine**, **glycine**, **lysine**, and **proline** belong to the so-called glucogenic amino acids and are important for maintaining energy homeostasis. In the event of a carbohydrate deficiency, for example, they help maintain stable blood sugar levels. They also play a key role in protein synthesis, immune function, wound healing, and general cell health.

STRESS, ANXIETY AND SLEEP DISORDERS

Cortisol, a stress hormone produced by the adrenal gland, reflects the level of stress exposure and the activity of the hypothalamic-pituitary-adrenal (HPA) axis. Elevated cortisol levels indicate a dysregulation of the stress response.

DHEA, a steroid hormone, counteracts the effects of cortisol and has neuroprotective and antidepressant properties. The DHEA/cortisol ratio can indicate chronic stress and stress-related conditions.

Tryptophan is the precursor to serotonin, a key neurotransmitter often referred to as the „happiness hormone.“ However, tryptophan can also be metabolised into kynurenine via the kynurenine pathway, which is a metabolic pathway activated by stress and inflammatory processes. An increased kynurenine/tryptophan ratio suggests immune system activation, commonly observed in depression and stress-related disorders.

The enzyme **IDO** (indoleamine-2,3-dioxygenase) catalyses the conversion of tryptophan to kynurenine. Its activity is stimulated by pro-inflammatory cytokines released during inflammatory responses. Increased IDO activity can disrupt the balance of neurotransmitter production.

GABA is an inhibitory neurotransmitter in the brain that plays a crucial role in mood regulation, anxiety control, and sleep health. Diminished levels of GABA are linked to an increased risk of anxiety disorders, panic attacks, and sleep disturbances.



GLUCOGENIC AMINO ACIDS ARE IMPORTANT FOR MAINTAINING ENERGY HOMEOSTASIS.

Immune health, digestion and neurotransmitter production

Threonine is an essential amino acid with several vital functions. It is involved in antibody production, making it crucial for a healthy immune system. Additionally, threonine supports neurotransmitter synthesis and contributes to the maintenance of the gut mucosa.

Certain degradation products of amino acids play important roles in the body and can also serve as biomarkers. For instance, **ADMA** and **SDMA** are markers for cardiovascular diseases, with elevated levels linked to an increased risk of these conditions. **Taurine** is essential for eye health, and a deficiency can result in vision problems, among other issues.



ACCORDING TO A SURVEY, 80% OF ADULTS IN GERMANY SUFFER FROM OCCASIONAL STRESS, WITH 25-30% EXPERIENCING IT REGULARLY. HOWEVER, IT'S NOT ONLY ADULTS AFFECTED - A QUARTER OF CHILDREN ALSO REPORTS BEING STRESSED.

GUT

Bile acids

Bile acids play a key role in the digestion and absorption of dietary fats, as well as in the absorption of fat-soluble nutrients like vitamin A, D, E, and K. They are also involved in energy metabolism and interact with the gut microbiome. Each bile acid has a unique structural composition, which affects its properties. The formation of bile acids and the composition of the bile acid pool are primarily influenced by our gut bacteria. Consequently, measuring bile acids can provide insights into the composition of the intestinal microbiome. Also, some bile acids can be toxic to the body.

Bacterial metabolites

Our intestinal bacteria can metabolise various substances within the gut. The specific substances they metabolise and the types of bacteria involved result in the production of a wide array of metabolites. These metabolites can provide valuable insights into the state of the patient and their overall health.

Hippuric acid production is often associated with bacterial activity in the gut and can be a marker of the body's detoxification ability. Elevated hippuric acid levels may indicate exposure to certain environmental toxins or dysbiosis of the gut flora.

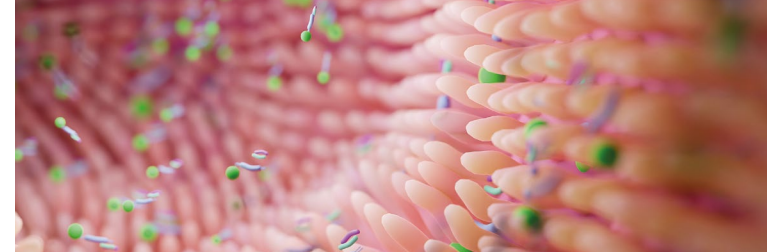
HARMFUL



p-Cresol can impact the intestinal barrier and contribute to inflammation. Elevated levels are associated with chronic kidney disease and various intestinal disorders.

Indoxyl sulphate: Known to be harmful to kidney cells, indoxyl sulphate is associated with the progression of chronic kidney disease and may also exacerbate inflammatory processes.

Putrescine: While putrescine is crucial for cell division and growth processes, excessive concentrations can be toxic. Increased production is linked to a higher risk of colorectal cancer.



Toxic bile acids:
GCDCA, DCA, LCA,
TDCA, GDCA

Protective bile acids:
UDCA, GUDCA

HEALTHFUL



Indole-3-Acetat (IAA) is involved in regulating intestinal barrier function and inflammation. It can have beneficial effects on intestinal health, such as protecting against increased permeability of the intestinal mucosa.

Indolepropionic acid (IPA) has antioxidant and neuroprotective properties. It is associated with a reduced risk of Alzheimer's and other neurodegenerative diseases. Additionally, IPA can help strengthen the intestinal barrier and reduce intestinal inflammation.

INFLAMMATION, HEART, AND IMMUNE HEALTH

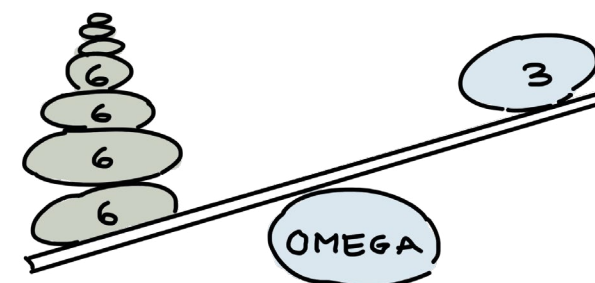
Fatty acids

Fatty acids are crucial not only as energy sources but also for a variety of physiological functions. Polyunsaturated omega-3 and omega-6 fatty acids are key components of cell membranes and play a significant role in brain function and mental health. Omega-3 fatty acids are known to lower the risk of cardiovascular disease and typically have anti-inflammatory properties. In contrast, omega-6 fatty acids can promote inflammation when consumed in excess or in certain contexts. The balance between these fatty acids in the diet is critical for maintaining health. Modern dietary patterns often lead to an increased ratio of omega-6 to omega-3 fatty acids, which can contribute to chronic inflammation and elevate the risk of cardiovascular disease.

Anti-inflammatory:
alpha-linolenic acid,
eicosapentaenoic acid,
and docosahexaenoic acid

Pro-inflammatory:
arachidonic acid

The optimal ratio of omega-6 to omega-3 fatty acids should be between 1:1 and 5:1. However, in most industrialized countries today, the average ratio is approximately 15:1.



**MODERN DIETARY HABITS
RESULT IN AN INCREASED
RATIO OF OMEGA-6 TO
OMEGA-3 FATTY ACIDS,
WHICH CAN LEAD TO
CHRONIC INFLAMMATION.**



Histidine/Histamine

Histamine is produced by the body from the amino acid histidine and can also be ingested through food. It acts as a mediator in immune responses and inflammation, and is released by the immune system during allergic reactions. Elevated histamine levels can indicate allergic reactions or inflammatory processes.

Zinc

Zinc is an essential trace element vital for immune system function. It supports the development and activity of immune cells, aids in wound healing, and has antioxidant properties. Additionally, zinc plays a role in testosterone production. A deficiency in zinc can lead to increased susceptibility to infections and may also contribute to fertility issues in men.



Selenium

Selenium primarily acts as an antioxidant, protecting cells from oxidative damage. It is crucial for the production of thyroid hormones and supports the immune system by enhancing immune function and modulating inflammatory processes. Adequate selenium intake can help reduce the risk of infections. Additionally, selenium deficiency can impair sperm quality, potentially affecting male fertility.

Iron

Iron is crucial for several vital functions in the human body. It is essential for oxygen transport and plays a key role in energy production within the muscle cells. Additionally, iron supports immune health and brain function by participating in neurotransmitter production. Iron deficiency is one of the most prevalent nutritional deficiencies globally and can cause anaemia. It can also compromise the immune system, increasing the susceptibility to infections.

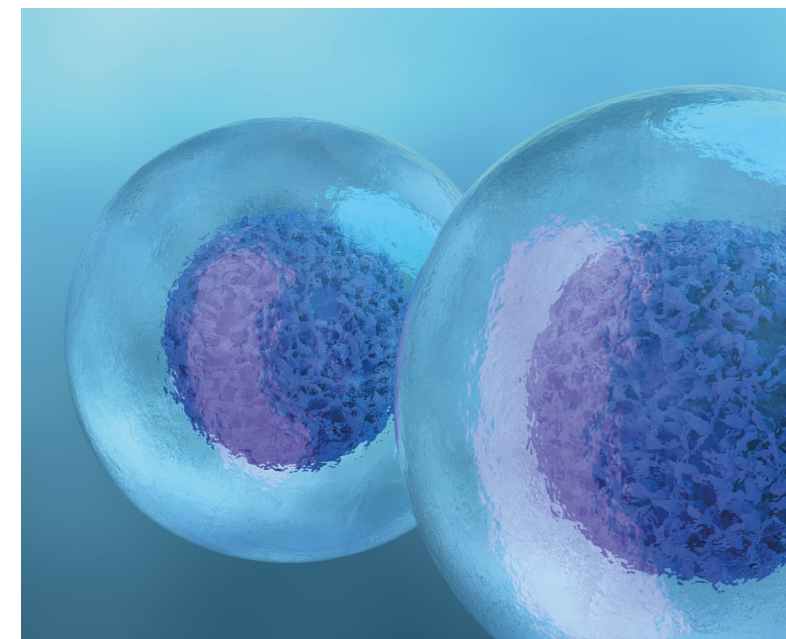
CELL PROTECTION AND CELL RENEWAL

Spermidine/Spermine

Spermidine is associated with anti-ageing effects due to its role in cell regeneration, renewal, and autophagy. Current research suggests that spermidine also has beneficial effects on the cardiovascular system. Spermine, on the other hand, is involved in regulating cell division and growth and may exhibit antioxidant properties.

Betaine

Betaine is derived from the amino acid glycine and plays a role in cell hydration and protection. It is also believed to support liver function.



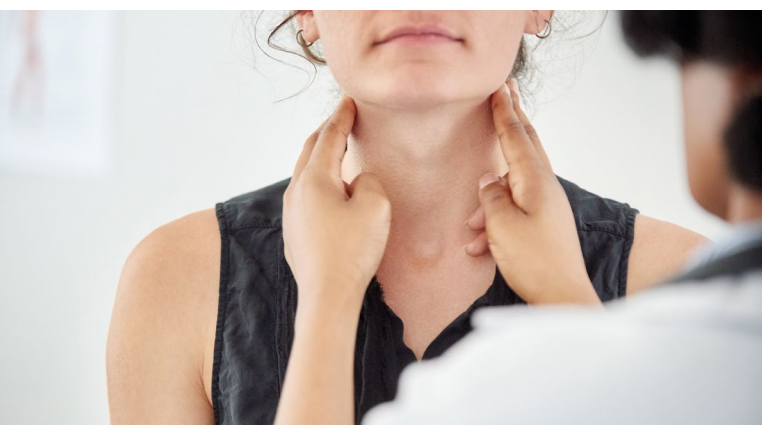
MUSCLE FUNCTION

Lactate

Lactate was once primarily viewed as a waste product of muscle exertion, causing muscle fatigue and post-workout soreness. However, recent research has revealed that lactate is also a crucial energy source for the heart, brain, and other organs. It serves as a signalling molecule, helps regulate the body's pH levels, and influences muscle adaptation to training. Despite its importance, excessively high lactate levels can lead to discomfort.

Magnesium

Magnesium is vital not only for muscle function but also for various other body processes, including protein synthesis, neurotransmitter release, and maintaining a normal heart rhythm. Magnesium deficiency is fairly common and can cause symptoms such as muscle cramps, fatigue, irritability, and cardiac arrhythmias. Over time, a lack of magnesium may increase the risk of osteoporosis, cardiovascular disease, and diabetes.



**MAGNESIUM
DEFICIENCY
IS COMMON.**

ENERGY METABOLISM

Carnitine

Carnitine, derived from various amino acids, is crucial for energy production from fatty acids as it transports them into the mitochondria. It also plays a significant role in muscle function and muscle building, and has neuroprotective properties. Studies suggest that carnitine supports heart health by lowering blood lipid levels and improving heart function. Reduced carnitine levels can negatively impact energy production, as well as muscle and heart function.

Choline

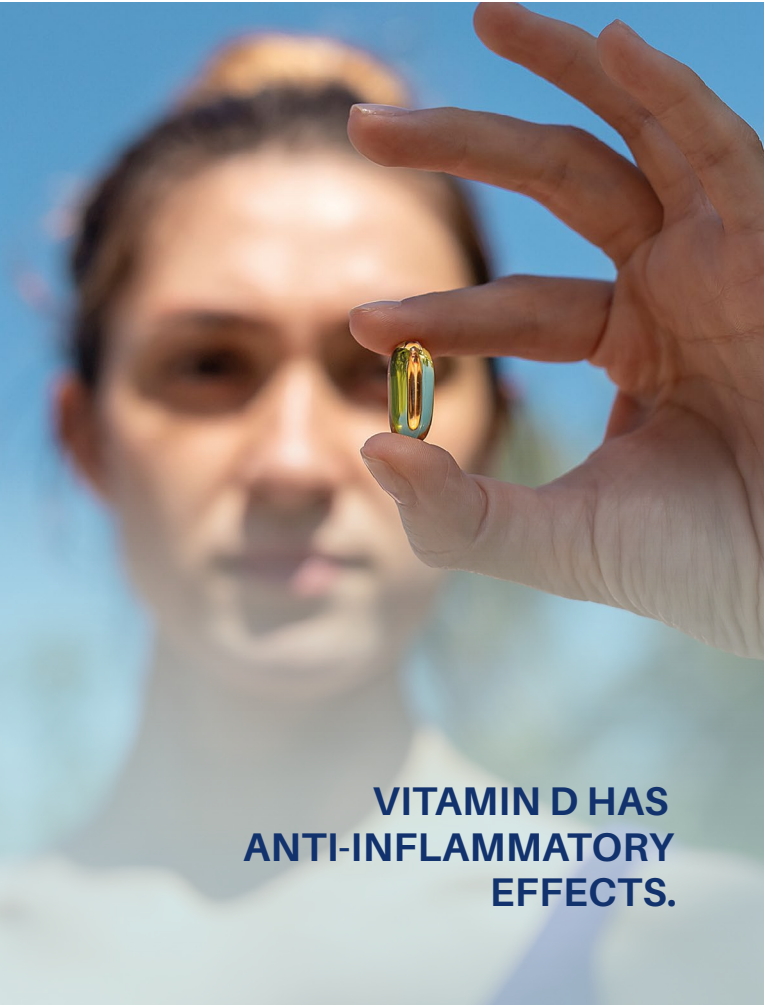
Choline is a crucial component of cell membranes and a precursor to the neurotransmitter acetylcholine. It plays a significant role in lipid metabolism by aiding in the transport and processing of fats and cholesterol in the liver. Choline deficiency can contribute to the development of non-alcoholic fatty liver disease and may also lead to cognitive impairments.

BONE METABOLISM

Vitamin D

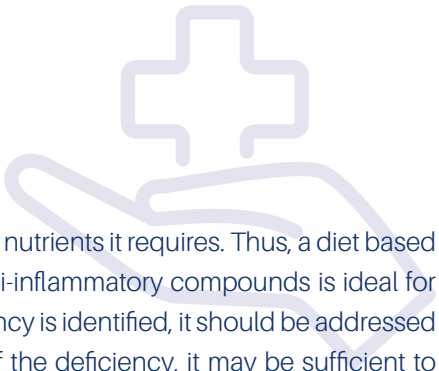
Vitamin D is essential for bone health and immune system function. It also possesses anti-inflammatory properties. Research indicates that adequate vitamin D levels can reduce the risk of certain chronic diseases, such as multiple sclerosis, type 1 diabetes, and cardiovascular disease. Additionally, adequate vitamin D levels are associated with a lower risk of certain types of cancer.

Only around 38% of adults in Germany have an adequate supply of vitamin D (RKI).



THERAPY

Overall, it is important to provide the body with all the nutrients it requires. Thus, a diet based on whole foods that are rich in antioxidants and anti-inflammatory compounds is ideal for maintaining good health. If a specific nutrient deficiency is identified, it should be addressed accordingly. Depending on the type and severity of the deficiency, it may be sufficient to increase the intake of certain foods, or supplements may be required. Maintaining good intestinal health is also important for overall well-being. Prolonged periods of psychological stress can negatively impact health, too. Therefore, stress reduction should be a key component of any therapeutic approach.



Gut therapy

High-fibre diet	→ promotes the growth of healthful gut bacteria
Probiotics (inulin/fructooligosaccharides)	→ promote the production of health-promoting bacterial metabolites
Prebiotics/prebiotic foods	→ counteract the production of harmful bile acids

Stress therapy and exercise

Regular physical activity can lower the risk of various diseases by positively impacting the cardiovascular and immune systems. It also promotes healthy sleep and activates the metabolism. In addition to physical activity, relaxation is essential for reducing stress. Regular aerobic exercise, massages, and acupuncture can also be beneficial when lactate levels are increased, as they support the breakdown and removal of lactate from the muscles.

Gentle forms of exercise

- Yoga
- Pilates
- Qigong

Endurance sports

- Running/hiking
- Swimming
- Biking

Relaxation (techniques)

- progressive muscle relaxation
- Meditation
- Autogenic training
- Massages



**FURTHER
INFORMATION
CAN BE FOUND
IN OUR
NUTRITION FLYERS
ON OUR
HOMEPAGE.**



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