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Wellness and preventive laboratory testing is a modern, medical approach for identifying potential alterations of the biological and physiological mechanisms that the body goes through over time.

Juvenalis and its expert clinical pathologists offer pertinent, preventative tests, which have been chosen according to specific and personalized criteria. Each panel is designed to focus on a specific mechanism or disorder, highlighting all of the various parameters which require monitoring or adjustment.

Juvenalis enables a global and/or targeted preventative medical approach, which can be adapted to each individual patient.



BasicCheck

Oxidative stress, micronutritional deficiencies, low-grade inflammation, metabolic or hormonal imbalances, etc... are all underlying factors in a patient's health and well-being.

With these diverse mechanisms in mind, **BasicCheck** is the first-line, wellness panel to be performed. The test parameters proposed in this panel give an exhaustive mapping of the main deleterious mechanisms and can direct towards more specific, and detailed investigations in the form of syndromic panels if indicated.

| CRP ultrasensitive | Vitamin E / cholesterol |
|-------------------------|-------------------------|
| Candida serology | Uric acid |
| TSH | Oxidated LDL |
| Glycated haemoglobin | Copper |
| Iron + saturation (IBC) | Zinc |
| Ferritin | Selenium |
| Homocysteine | Fatty acids profile |
| Vitamin D* | Casein IgG |
| Vitamin A | |

^{*} Measurement of separated forms



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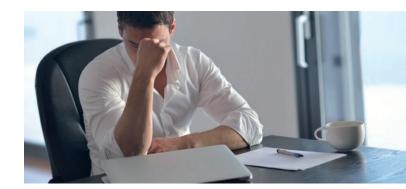
Complementary panels

With the exception of DermaCheck, not all tests proposed within BasicCheck are performed in the other panels. We strongly recommend associating a BasicCheck panel with all other Juvenalis test requests to ensure an optimum interpretation of results.

DermaCheck

Our skin faces a number of harmful environmental factors (pollution, toxic substances, stress, etc.) on a daily basis and is likely to be subject to vitamin and trace element deficiencies. As our first line of defence, our skin can also reflect other deeper-lying problems. The DermaCheck panel is the first step towards assessing the health of your skin as well as follow-up for monitored supplementation.

| Vitamin A | Copper |
|-----------|----------|
| Vitamin E | Selenium |
| Zinc | lodine |



StressCheck

Vitamin deficiencies, hormone imbalances and even environmental contamination or ingestion of too many heavy metals through your diet may trigger anxiety-causing mechanisms, chronic fatigue, sleep or memory disorders and even neurodegenerative diseases.

The StressCheck panel is used to profile the main elements involved in neurotransmitter mechanisms, hormones responsible for keeping your mood stable and also checks for traces of potentially neurotoxic metals.

| Magnesium | Tyrosine |
|-----------------|-----------------------|
| Magnesium RBC | Cortisol |
| Vitamin B1 | Cortisol/DHEA-S ratio |
| Vitamin B3 | FT3 |
| Vitamin B6 | Sulfatoxymelatonin |
| Vitamine B12 | Mercury |
| Ionised Calcium | Aluminium |
| Serotonin | Lead |

AgeCheck Women

Ageing affects women in a variety of ways – physically, physiologically and biologically – so it is important to detect any early warning signs as soon as possible so that the underlying issues can be optimally managed. The key biomarkers in this respect are nutritional, hormonal and metabolic, and the measurement of their levels is relevant to any patient wishing to maintain her metabolic balance and prevent any signs of premature ageing.

| Vitamin B12 | FT3 |
|-------------------|----------------------|
| Vitamin B9 | IGF-1 |
| Vitamin B2 | DHEA-S |
| Vitamin B6 | Pregnenolone sulfate |
| FSH | P1NP |
| Estradiol | Crosslaps |
| Free Testosterone | PTH |
| SHBG | Estrone |
| FT4 | |

AgeCheck Men

Ageing in men causes hormonal and metabolic changes which are key indicators in terms of preventing harmful effects. Cardiovascular and prostate risk markers are obvious aspects here, combined with those relevant to ensuring an optimum macro- and micro-nutritional balance.

| Vitamin B12 | TH |
|---------------------------|----------------------|
| Vitamin B9 | IGF-1 |
| Vitamin B2 | DHEA-S |
| Vitamin B6 | Pro PSA (PHI index) |
| Dihydrotestosterone | FT4 |
| | |
| Estradiol | FT3 |
| Bioavailable testosterone | Pregnenolone sulfate |
| SHBG | Apolipoprotein A |
| FSH | Apolipoprotein B |



DigestCheck

The gut is often referred to as the body's "second brain" and plays a major part in maintaining our health. The balance between gut mucosa, microbiota and our immune system helps compensate for physiological or pathological variations caused by infection, inflammation, hyperpermeability. This balance also plays a part in a variety of other chronic inflammatory or auto-immune diseases, regardless of whether digestive symptoms are present.

| Stool chemistry | Alpha 1 antitrypsin |
|------------------|---------------------------|
| Beta 2 defensins | Zonulin |
| Calprotectin | Total IgAs |
| Secretory IgA | Anti-transglutaminase IgA |

NutriCheck

In addition to macro-nutrients (carbohydrates, fats, proteins and fibre), micro-nutrients are also crucial to maintaining a proper, balanced diet. This micronutrition panel evaluates vitamin and mineral levels as well as essential trace elements and fatty and amino acids. While classic health assessments may not show any particular imbalances, they may indicate certain deficiencies and/or spikes which should be corrected, thus preventing pathologies to develop.

This panel also helps in monitoring the impact of changing your diet and/or taking supplements in order to avoid any potentially harmful effects.

| Vitamin B9 | Vitamin B2 |
|-------------|---------------------|
| Vitamin B12 | Vitamin B6 |
| Vitamin C | Amino acids profile |

OsteoCheck

No matter your age, bone metabolism perpetually evolves due to constant changes within the bone tissue. Growth, menopause, back pain, sports injuries - these are just a number of reasons why this assessment may be indicated. These specific clinical analyses enable us - by measuring hormonal and micro-nutritional (vitamins and minerals) markers - to monitor bone metabolism indicating an excess or deficiency in bone remodelling.

| PTH | Osteocalcin |
|------------|-------------|
| Phosphorus | Crosslaps |
| Rone Al Ps | |

WeightCheck

Everyone wants to achieve his or her ideal weight, regardless of whether it's a man, woman or child dealing with hormonal or dietary imbalances or even psychological disorders. The WeightCheck panel provides a biological profile of each patient working to achieve his/her ideal weight, indicating fat and carbohydrate reserves, nutritional and micro-nutritional levels and any potential underlying pathologies, particularly those associated with being overweight. This panel may also be used to monitor therapeutic and/or dietary approaches taken as part of management for any deficiencies or excesses.

| Total proteins | Chromium |
|------------------|-----------------|
| Albumin | HOMA |
| PINI** | Leptine |
| FT3 | Adiponectin |
| Apolipoprotein A | Serotonin |
| Apolipoprotein B | Vitamin B3 (PP) |
| Ionised calcium | Vitamin B6 |
| Magnesium | Vitamin B9 |
| Phosphorus | |

Sportify

The Sportify panel measures the metabolism markers for patients who practise sport at a high level or who wish to adapt their diet and lifestyle for a particular sport.

These markers include the patient's nutritional status, oxidative stress or also any underlying inflammations. The analysis of all of the biological components provides a comprehensive overview of the metabolism processes involved in a sporting activity or assessing whether the patient can cope with the level of training being performed.

| Magnesium | Vitamin B6 |
|-----------------|------------------------|
| Ionised calcium | Glutathione peroxidase |
| Phosphorus | Cortisol |
| Bone ALPs | Testosterone |
| Vitamin B9 | Amino acids |
| Vitamin B12 | |





Nutritol[™] Food intolerance panels

Food intolerance (or hypersensitivity) may be linked to low-level chronic inflammation within the digestive system or elsewhere as a result of the production of specific IgG antibodies, caused by certain types of food combined with changes to gut permeability. Removing these foods from your diet could help reduce inflammation and contribute to improved symptoms or even complete elimination of symptoms and the associated pathologies.



The liste of foods analysed are available on our website www.juvenalis.com

| Panel | Descriptif |
|-----------------------------|--|
| Nutritol ²⁵ | Analysis of 25 common foods, such as dairy products, grains and hen's eggs, including gluten for screening of NCGS**: different types of meat, vegetables, fruits, grains, dairy products and hen's eggs. |
| Nutritol ⁵⁰ | Analysis of 50 foods, such as different variety of meat, dairy products or vegetables. |
| Nutritol ^{50VEGAN} | Analysis of 50 vegan foods. |
| Nutritol ¹⁰⁰ | Analysis of the 100 most widely consumed foods |
| Nutritol ²⁷⁰ | Analysis of 270 foods and additives: different varieties of meat, vegetables, fruits, grains, dairy products, eggs, their substitutes and regional specialties, as well as a large number of spices, tea, coffee, wine tannins, thickening agents and preservatives. |

^{**}NCGS: Non-coeliac gluten sensitivity



An apple a day keeps the doctor away!

Even if the idea behind this old saying remains as true today as ever, an apple a day is hardly enough, these days, to maintain optimal health. Our bodies are constantly subjected to harmful factors, such as pollution, stress and and the consumption of junk food. These issues are further aggravated by physiological changes related to ageing (hormonal imbalances, reduced immunological defences, slower metabolism) that contribute to senescence processes which may be organic or ultimately intracellular.

In order to age well, we need to take responsibility for our own health through preventive health testing to maintain the core balances which are so vital to our being.

Progress made in clinical pathology has elucidated the major mechanisms involved in the ageing process, such as oxidative stress, glycation, low-grade inflammation and dysbiosis.

The same mechanisms appear in certain pathologies for auto-immune diseases, infections or chronic inflammation, areas where "traditional" medicine is not always able to discern.

The biology of the future will be based on P4 medicine

Prevention, Prediction, Personalisation and Participation

Prevention involves the early diagnosis of imbalances, deficiencies or excesses before symptoms even appear.

Prediction determines the probability of pathologies arising.

Personalisation refers to a holistic approach towards patients, taking into account their personal, biological, medical and environmental histories.

Participation involves placing the patient at the centre of the therapeutic or maintenance approach and, to this end, directly involving patients in the diagnosis, prevention and treatment options offered to them.

The biology of the future is here ...with Juvenalis

What can Juvenalis offer you?

Juvenalis offers both clinicians and patients a broad range of panels to test metabolic, hormone, micro-nutritional and digestive profiles. Our wellness test panels were conceived by European experts in clinical pathology and preventive health testing, and backed by the expertise of Eurofins Biomnis, European leader in specialised clinical pathology.

The expert clinical pathologists at Juvenalis are here to guide you, advise you and provide their insights on the results of each analysis performed as part of this holistic and functional approach, which is widely accessible via our partner reference laboratories.

To know more about Juvenalis and its availability in your country, please visit www.juvenalis.com

