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Prolmmun Analyze
Diagnostik-Zentrum Zagreb




Haulikova 1
HR-10000 Zagreb

Laboratoryreport

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Sample Material: urine, 1. Morgenurin stab. (HCL)

Test	Result	Initial Result	Norm
clinical chemistry			
Creatinine (urine)	2,15 g/l 	2,54	0,36 - 2,37 Please mind the altered normal range.
Note: The evaluation of the creatinine concentration in the urine does only serve as an admeasurement of the individual efficiency of the kidney. High values point to an urine concentration, low values to a strong dilution. Only the consideration of these circumstances allows to evaluate the requested analyte correctly.			
Creatinine (1st morning urine, stab.)	2,15 g/l 		0,36 - 2,37 Please mind the altered normal range.
micronutrients			
Nitro stress:			
Cystathionine	16 mg/g creatinine 		< 31,7
Tyrosine (urine)	15 mg/g creatinine 		3,0 -27,0
4-Hydroxy-nitrophenylacetic acid	<7.70 µg/g creatinine 		< 15,0
Citrulline in urine	1,77 mg/g creatinine 		< 1,2
Methylmalonic acid (urine)	0,29 mg/g creatinine 		< 2,4
8-Epi-prostaglandine (Isoprostane)**	22,94 ng/ml 		< 3,4
Isoprostanes are a group of compounds which are formed by free radicals in the oxidation of phospholipids from the tissue. The substance 8-epi-prostaglandin represents a biologically active isoprostane, which is formed during the peroxidation of arachidonic acid by free radicals. Thus, the concentration of this metabolite is an indicator of oxidative stress, ie exposure to free oxygen radicals. Please note the updated normal range.			

Micronutrients / vitamins
8-Epi-Prostaglandin (Isoprostane)
F2-Isoprostan entsteht bei der Lipidoxidation durch freie Radikale aus Arachidonsäure, einer vierfach ungesättigten Fettsäure, die vornehmlich in tierischen Fetten

(Fleisch, Wurstwaren) vorkommt. Isoprostan ist ein verlässlicher Marker der oxidativen Stressbelastung.

nitro-stress

citrulline in urine

Citrulline is produced as a by-product at excessive levels of nitric oxide (NO). Increased concentrations indicate an increased NO synthesis. The excessive NO formation is stimulated particularly by inflammatory processes, contaminant exposure, nicotine, drugs (antibiotics, cytostatic drugs, statins, Long-term nitrates), nitrite-rich foods (especially food additives, Preservatives of meat and sausages, milk powder, leafy and root vegetables) and physical and mental stress. It should be noted that petioles, shoot axes and roots, and plants from conventional cultivation contain more nitrate than other plant parts such as leaves, berries and fruits.

The nitrosative stress (induced by nitric oxide) causes an extreme lack of energy by inhibiting mitochondrial function and the citric acid cycle. Moreover it leads to a strong impairment of essential metabolic processes. This will particularly concern cholesterol metabolism, heme synthesis and vitamin B12 levels. The formation of serotonin, melatonin, catecholamines, melanin and thyroid hormones is also reduced.

Cystathionin im Urin

Cystathionin ist ein Zwischenprodukt bei der Transsulfonierung von Homocystein und Cystein. Dabei ist Vitamin B6 als Co-Faktor für die Enzyme wichtig.

Tyrosin im Urin

Tyrosin ist eine aromatische Aminosäure, die aus der essentiellen Aminosäure Phenylalanin gebildet wird oder direkt mit der Nahrung aufgenommen wird. Tyrosin ist eine Vorstufe in der Biosynthese von Dopamin, Adrenalin, Thyroxin und Melanin. Die Konzentration von Tyrosin ist vorwiegend abhängig von der enzymatischen Umwandlung des Phenylalanins. Ein Teil des Tyrosins wird zur Hydroxyphenylsigsäure abgebaut und mit dem Urin ausgeschieden.

Bei nitrosativem Stress kann **Tyrosin** vermehrt zu Nitrotyrosin umgewandelt werden. Ein großer Teil des gebildeten Nitrotyrosins wird mit dem Urin als **4-Hydroxynitrophenylsigsäure** ausgeschieden.

Many thanks for your investigatory assignment.

medically validated for Ganzimmun Diagnostics AG

All parameters marked with an * are tested at our accredited laboratory partners.

** study not accredited

Test, Dieter

geb. 13.04.1952

Barcode 41821300

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Ausgang am 21.10.2014

Therapy recommendations

The given therapy recommendations are generally an assortment of different types of therapies and applications that have proved oneself in particular with view to the constellation of clinical findings. Which preparations and types of therapies respectively are to be applied and, when indicated, are combined is up to the therapists' discretion. The therapists' responsibility for necessary therapeutic measure as well as criteria for exclusion and contraindications in individual cases is not replaced thereby. For further inquiry we gladly are at the practises command.

Directions for use of the preparations:

bb - before breakfast

b - breakfast

m - morning

l - lunch

a - afternoon

d - dinner

n - night (before going to sleep)



Nutrition advice

Preventive measures against oxidant stress

The supply with micronutrients in dependence with a micronutrient analytics if applicable, is inevitable for a potent antioxidant protection system. With view on the phytochemicals one has to mind a high consumption of fruits and vegetables. Beyond that about 750 ml of organic vegetable juice per day in connection with concentrated phytochemicals is recommendable.

It is also recommended to forswear the polyunsaturated vegetable fats which are very likely to oxidate (sunflower oil, vegetable margarine, thistle oil, corn oil, soy oil) and to favour the monounsaturated fatty acids (olive oil, linseed oil, rape oil).