

Patient Name :

LAB No.

HN:

Age : 43

Gender :Female

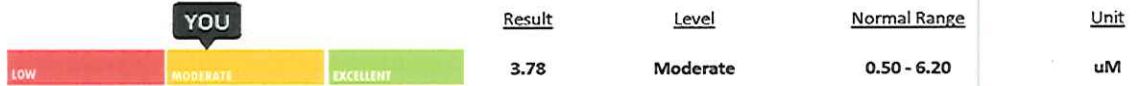
Date: 03-10-17

Vitamin A (Retinol)



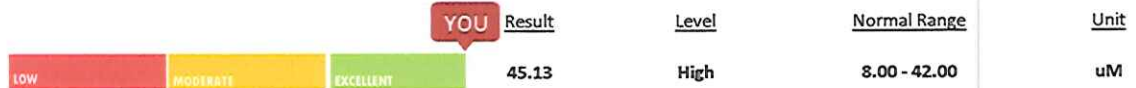
The result of Vitamin A (Retinol) level is moderate. Vitamin A (Retinol) is essential for immunology system, vision and epithelium cell growth. You don't need to increase or decrease the blood level of vitamin, nevertheless order from doctor in special case.

gamma-Tocopherol



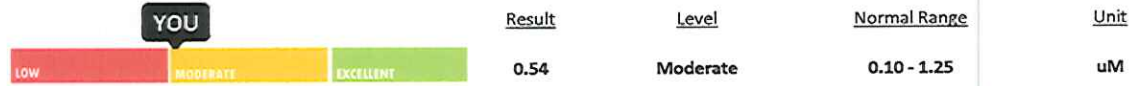
The result shows moderate gamma-Tocopherol level. Currently, there is few established information regarding the importance of this antioxidant. According to researches, gamma-Tocopherol vitamin E level is associated with antioxidant in peroxynitrite. However, there is the reports indicated the patient with heart disease tends to have low level of gamma-Tocopherol. Although there is no the dietary supplement especially for gamma-Tocopherol, you can boot the gamma-Tocopherol level from other food supplements, which consists of mixed tocopherol that extracts from oil soybean. Moreover, gamma-Tocopherol are found high amount in wheat germ, oil soybean, grain and other beans.

Vitamin E (alpha-Tocopherol)



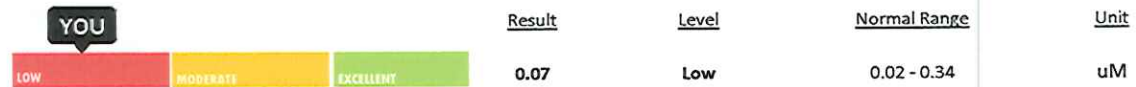
The result shows high level of vitamin E (alpha-Tocopherol). Nowadays there is no data of effect from high vitamin E level to body except causing bleeding tendencies. Vitamin E, one of the fat-soluble antioxidant found most in blood, is carried with lipoproteins. The major role of vitamin E is to inhibit the oxidation of LDL (bad cholesterol). Nevertheless, the oxidation of LDL will induce the cardiovascular risk. Vitamin C also aid for maintaining the condition of vitamin E to be active as antioxidant.

Lycopene



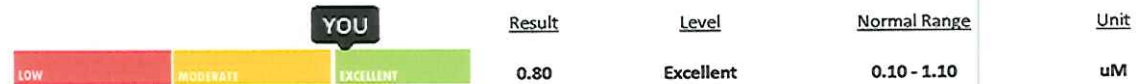
The result of Lycopene level is moderate. Lycopene is the efficient biological substance in order to prevent the tissue damage from oxidation of singlet oxygen. The studies show the persons who consume the high Lycopene food or have high Lycopene blood level have low risk for cancer, especially prostate cancer. The most effective way to raise the Lycopene level is to consume the food from tomato including the product from tomato such as pasta sauce or the Lycopene supplement.

alpha-Carotene



The result of alpha-Carotene level is low. Presently, there is no reliable information that specifies the effect from having low alpha-Carotene blood level to body. Due to the few study, low level of alpha-Carotene is affected from consuming less fruit and vegetable. The study relates to the fact that almost nutrients from vegetable and fruit is significantly importance to protect from the vascular disease, especially other type of cancer.

beta-Carotene



The result shows excellent beta-Carotene level, which indicates that the patient consume vegetable and fruit with beta-Carotene or have some of beta-Carotene supplement in adequate amount. So the patient does not need to change any of behavior. Some studies reported that the food supplements with beta-Carotene are able to slightly increase the risk of lung cancer in smokers. Hence the smokers should stop taking beta-Carotene supplements. In other word, if smokers can have some vegetable and fruit which consists of high beta-Carotene instead, this beta-Carotene will prevent them from the lung cancer. So you should consume this kind of vegetable and fruit regularly. Moreover, there is no report about the meal with high beta-Carotene consumption harming the non- smokers.

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Coenzyme Q10

	YOU	Result	Level	Normal Range	Unit
		3.29	High	0.46 - 1.85	uM

The result shows high Coenzyme Q10 level in blood. Coenzyme Q10 has important role of energy providing to the body. Moreover, Coenzyme Q10 is associated with Vitamin C in order to stimulate Vitamin E to be more efficiency as an antioxidant. According to data, high level of coenzyme Q10 has slightly affect to the body. Anyway some symptoms are reported to be found in patient including stomachache, anorexia, queasiness and diarrhea.

Vitamin C (Ascorbic acid)

	YOU	Result	Level	Normal Range	Unit
		17.15	Low	11.36 - 79.49	uM

The result shows low Vitamin C (Ascorbic acid) level in blood. Vitamin C (Ascorbic acid) is an excellent water-soluble antioxidant, which is essential for stimulating Vitamin E to work as antioxidant. You should regularly have the food supplement with Vitamin C (Ascorbic acid) 10-15 mg per pound of body weight per day in order to raise Vitamin C (Ascorbic acid) level properly. Vitamin C (ascorbic acid) can easily be damaged if stored improperly. The food that contains the high amount of Vitamin C is broccoli, brussel sprouts, blackcurrant, parsley and guava.

Chromium (Cr)

	YOU	Result	Level	Normal Range	Unit
		0.72	Normal	Less Than 5.00	ug/L

The result shows normal Chromium (Cr) level in blood. Chromium (Cr) is an essential trace mineral that use for maintaining health and has many functions in the human body, especially, insulin-enhancing activity and blood sugar control process. Cr deficiency may result in decreased insulin sensitivity, glucose intolerance and increased risk of diabetes. Good sources of Cr are whole grains, peas, beans, brewer's yeast, beef liver, cheese and meat.

Copper (Cu)

	YOU	Result	Level	Normal Range	Unit
		122.32	Moderate	79.40 - 202.30	ug/dL

The result shows moderate Copper (Cu) level in blood. Copper (Cu) is an important mineral for human because it is associated with bone and skeletal health, immune function, frequency of infections, cardiovascular risk and alterations in cholesterol metabolism. Cu deficiency may lead to higher level of oxidative stress, easy bruising as well as bone and joint problems. Good sources of Cu are oyster and other shellfish, whole grains, chick pea, sunflower seed, Brazilian nut, cashew, potato and organ meat (kidney, liver).

Selenium (Se)

	YOU	Result	Level	Normal Range	Unit
		117.14	Moderate	79.00 - 141.00	ug/L

The result shows moderate Selenium (Se) level in blood. Selenium (Se) is an important constituent of antioxidant enzymes, especially glutathione peroxidase and some other selenoproteins that participate in various physiological activities and protect cells against the deleterious effect of free radicals by modulating the cell response. Se deficiency is associated with a host of human diseases such as immune impairment. Good sources of Se are meat, seafood, bread, grains and nuts.

Zinc (Zn)

	YOU	Result	Level	Normal Range	Unit
		93.91	High	55.10 - 92.50	ug/dL

The result shows high Zinc (Zn) level in blood. Zinc (Zn) is required for the metabolic activity of many body's enzymes and is considered essential for cell division and in the synthesis of DNA and protein. Zn deficiency is known to be associated with insulin resistance in obese individuals, slow wound healing, hair loss and sleep disturbance. Good sources of Zn are meat, poultry, oyster, seafood, milk products, nuts, seeds, whole grains, legumes, and cereals.

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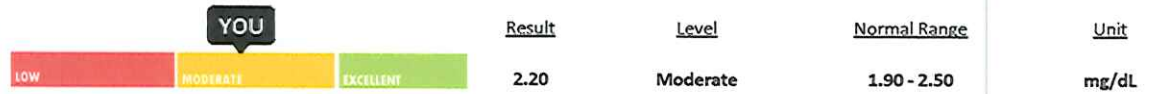
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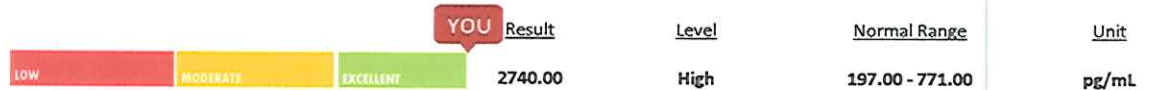
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Magnesium (Mg)



The result shows moderate Magnesium (Mg) level in blood. Magnesium (Mg) plays an important role in nervous system, muscle function, and strong bones. Vital health benefits include regulating the relaxation and contraction of muscles, production of proteins as well as production and transportation of energy throughout the body. Mg deficiency may be the cause of weakness, fatigue, muscle cramps, insomnia, mental health problems, depression and IQ loss. Good sources of Mg are green leafy vegetables (such as spinach), legumes, nuts, whole grains, corn and tofu.

Vitamin B12



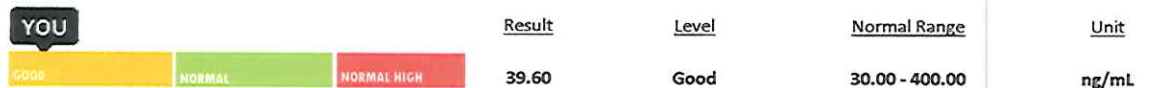
The result shows high Vitamin B12 level in blood. Vitamin B12 is essential for the synthesis of branched-chain amino acids and single-chain fatty acids and for methylation of phospholipids, amines, neurotransmitters, DNA, RNA, and myelin basic proteins. Lack of vitamin B12 leads to deficiency in methylation reactions and increased homocysteine levels in the circulation which is related to cardiovascular disease and anemia. Good sources of vitamin B12 come from animal meat or products such as beef liver, shellfish, mackerel, red meat, cheese and eggs.

Folate



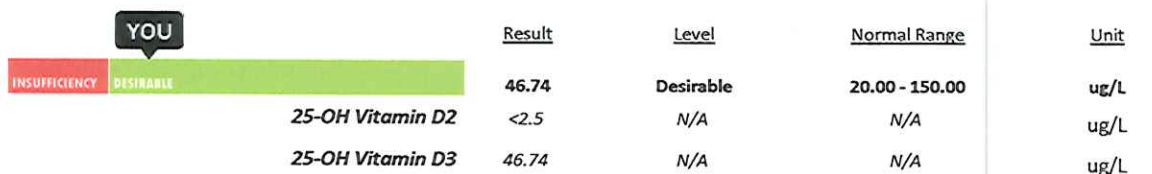
The result shows moderate Folate level in blood. Folate acts as a co-factor in many biochemical processes, exclusively for the formation of red blood cells and for keeping plasma homocysteine level in balance. Deficiency of folic acid can cause anemia. Low folic acid and high homocysteine levels directly damage the neurons in the brain. High plasma homocysteine level is a risk factor for major cardiovascular events, including stroke. Good sources of folic acid are green leafy vegetables (spinach, kale, asparagus, broccoli, etc.), avocado, citrus fruits and beans.

Ferritin



The result shows good Ferritin level in blood. Ferritin is a protein where iron (Fe) is stored. It can be used for monitoring iron status and for evaluating iron deficiency or excess. People having low ferritin level will also have low iron and they will suffer from iron deficiency anemia. If the level of ferritin is low, you may feel fatigued and run down, and can be a cause of low thyroid function causing hypothyroidism. Hair loss and brittle nails may occur due to ferritin deficiency. Good sources of ferritin come from iron-rich foods such as red meat, nuts, dried fruits, cereals and whole grains.

25-OH Vitamin D2/D3



The result shows desirable 25-OH Vitamin D2/D3 level in blood. Vitamin D is an essential vitamin required by the body for absorption of calcium, bone development, immune functioning, and alleviation of inflammation. Vitamin D deficiency can lead to rickets, a weakened immune system, increased cancer risk, poor hair growth, and osteomalacia. Excess vitamin D can cause the body to absorb too much calcium, leading to increased risk of heart disease and kidney stones. Therefore, the monitoring of vitamin D status in terms of 25-OH vitamin D2 and 25-OH vitamin D3 in the blood circulation is very important. Good sources of vitamin D are fish oils, fatty fish, mushrooms, beef liver, cheese, and egg yolks.

Reported by Worathad Chindaudomsate Date 06/10/2017 Time 15.06

Approved by Phoowadon Phuangthong Date 06/10/2017 Time 15.08