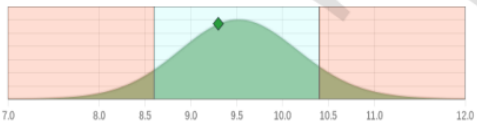
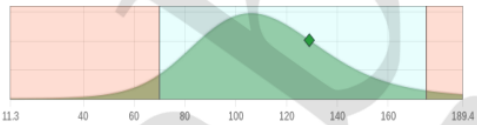
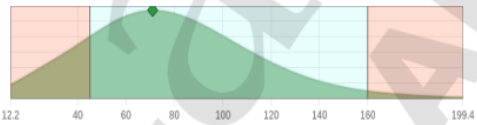
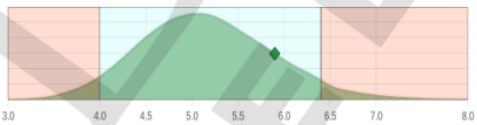
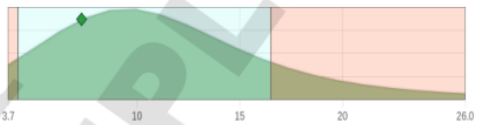
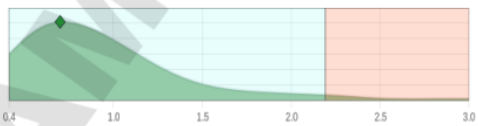
Quest Diagnostics

Report Status: Final

Patient Information	Specimen Information	Client Information

Micronutrients

Test Name	In Range	Out of Range	Reference Range	Population Distribution	Population Percentile	Historical Result	Lab
MINERAL/ELEMENT							
CALCIUM Lab :	9.3		8.6-10.4 mg/dL		33.8%	-	
CHROMIUM, BLOOD Lab :	<0.5		<=1.2 mcg/L			-	
COPPER, PLASMA Lab :	129		70-175 mcg/dL		75.9%	-	
IRON Lab :	71		45-160 mcg/dL		44.8%	-	
MAGNESIUM, RBC Lab :	5.9		4.0-6.4 mg/dL		86.2%	-	
MANGANESE, BLOOD Lab :	7.3		4.2-16.5 mcg/L		18.7%	-	
MOLYBDENUM, BLOOD Lab :	0.7		<2.2 mcg/L		40.3%	-	

PERFORMING SITE:

SPECIMEN:

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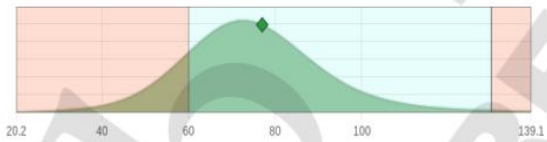
Test Name	In Range	Out of Range	Reference Range	Population Distribution	Population Percentile	Historical Result
SELENIUM, BLOOD Lab :	168		120-200 mcg/L		45.7%	-
ZINC, PLASMA Lab :	77		60-130 mcg/dL		59.7%	-

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Comments

Analyte Name
CALCIUM
Serum calcium is required for vascular contraction and vasodilation and is involved in the regulation of neuromuscular and enzyme activity, bone metabolism and blood coagulation. A low level of calcium may result in tetany. For more information, visit https://ods.od.nih.gov/factsheets/Calcium-HealthProfess ional
CHROMIUM, BLOOD
Chromium is an essential element needed in small quantities in the diet. It is thought to help utilize carbohydrates, fats, and proteins. The amount of chromium in fruits and vegetables is dependent on the chromium in the soil and water. For more information, visit https://ods.od.nih.gov/factsheets/Chromium-HealthProfes sional/ This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute, Chantilly, VA. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.
COPPER, PLASMA
Copper is an essential element that is a cofactor of many enzymes, including ceruloplasmin, which plays a role in iron metabolism and carries more than 95% of the total copper in healthy human plasma. It is also involved in many physiologic processes, such as angiogenesis; neurohormone homeostasis; and regulation of gene expression, brain development, pigmentation, and immune system functioning. Copper concentrations increase in acute phase reactions and are decreased with nephrosis, malabsorption, and malnutrition. For more information, visit https://ods.od.nih.gov/factsheets/Copper-HealthProfessi onal/ This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute, Chantilly, VA. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.
IRON
Iron is an essential micronutrient in the body, where it plays an important role in the production of healthy red blood cells. It also is an important constituent of proteins, such as hemoglobin, myoglobin, and enzymes. Since iron is a key micronutrient important to transport oxygen, deficiencies in iron may impair this process, which may result in fatigue and weakness. Excess iron intake can have gastrointestinal upset, while excessive iron accumulation can be a result of hemochromatosis. For more information, visit https://ods.od.nih.gov/factsheets/Iron-HealthProfession al/
MAGNESIUM, RBC
Magnesium is a nutrient that is important for many processes in the body, including regulating muscle and nerve function, blood sugar levels, blood pressure and making protein, bone, and DNA. A clinical deficiency can lead to irritability, neuromuscular abnormalities, cardiac and renal damage. Excessive amount may cause CNS depression, loss of muscle tone, respiratory complications, and cardiac arrest. For more information, visit https://ods.od.nih.gov/factsheets/Magnesium-HealthProfe ssional/ This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute, Chantilly, VA. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.
MANGANESE, BLOOD
Manganese helps form bones and helps metabolize amino acids, cholesterol, and carbohydrates. A clinical deficiency may cause growth disorders, alters skeletal and cartilage formation and impairs reproduction. For more information, visit https://ods.od.nih.gov/factsheets/Manganese-HealthProfe ssional/ This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute, Chantilly, VA. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.
MOLYBDENUM, BLOOD
Molybdenum is used to process proteins and DNA and also activates several enzymes that break down toxins and prevents the buildup of harmful sulfites in the body. For more information, visit https://ods.od.nih.gov/factsheets/Molybdenum-HealthProf essional/ This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute, Chantilly, VA. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

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SELENIUM, BLOOD

Selenium is an essential micronutrient and plays critical roles in reproduction, thyroid hormone metabolism, DNA synthesis, and protection from oxidative damage and infection.

For more information, visit https://ods.od.nih.gov/factsheets/Selenium-HealthProfes sional/

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute, Chantilly, VA. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

ZINC, PLASMA

Zinc is an essential element involved in a myriad of enzyme systems including wound healing, immune function and fetal development. Zinc measurements are used to detect and monitor industrial, dietary and accidental exposure as well as to evaluate health. Zinc toxicity can occur, often resulting in nausea, vomiting, loss of appetite, abdominal cramps, diarrhea, and headaches.

For more information, visit https://ods.od.nih.gov/factsheets/Zinc-HealthProfession al/

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute, Chantilly, VA. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

End Notes:

Population Distribution Interpretation:

Quest population data from 1/1/2020 to 3/16/2021 was used to build the population distribution curves. The x-axis represents the biomarker result value and the y-axis represents the patient kernel density estimate, which is a smoothed version of the histogram.

Solid grey lines represent reference interval cutoffs. A data point at the extent of the x-axis may represent a value below/above the lower/upper limits of the x-axis range.

The population percentile indicates where a patient's result is relative to the whole population. For example, a patient result labeled as 45th percentile means 45% of the population has a test result lower than this resulted value.

PERFORMING SITE:

SPECIMEN: