

## — Toxicology

Toxicology is the study of adverse effects of chemicals on living organisms that includes the symptoms, mechanisms, treatments and detection of poisoning of people.

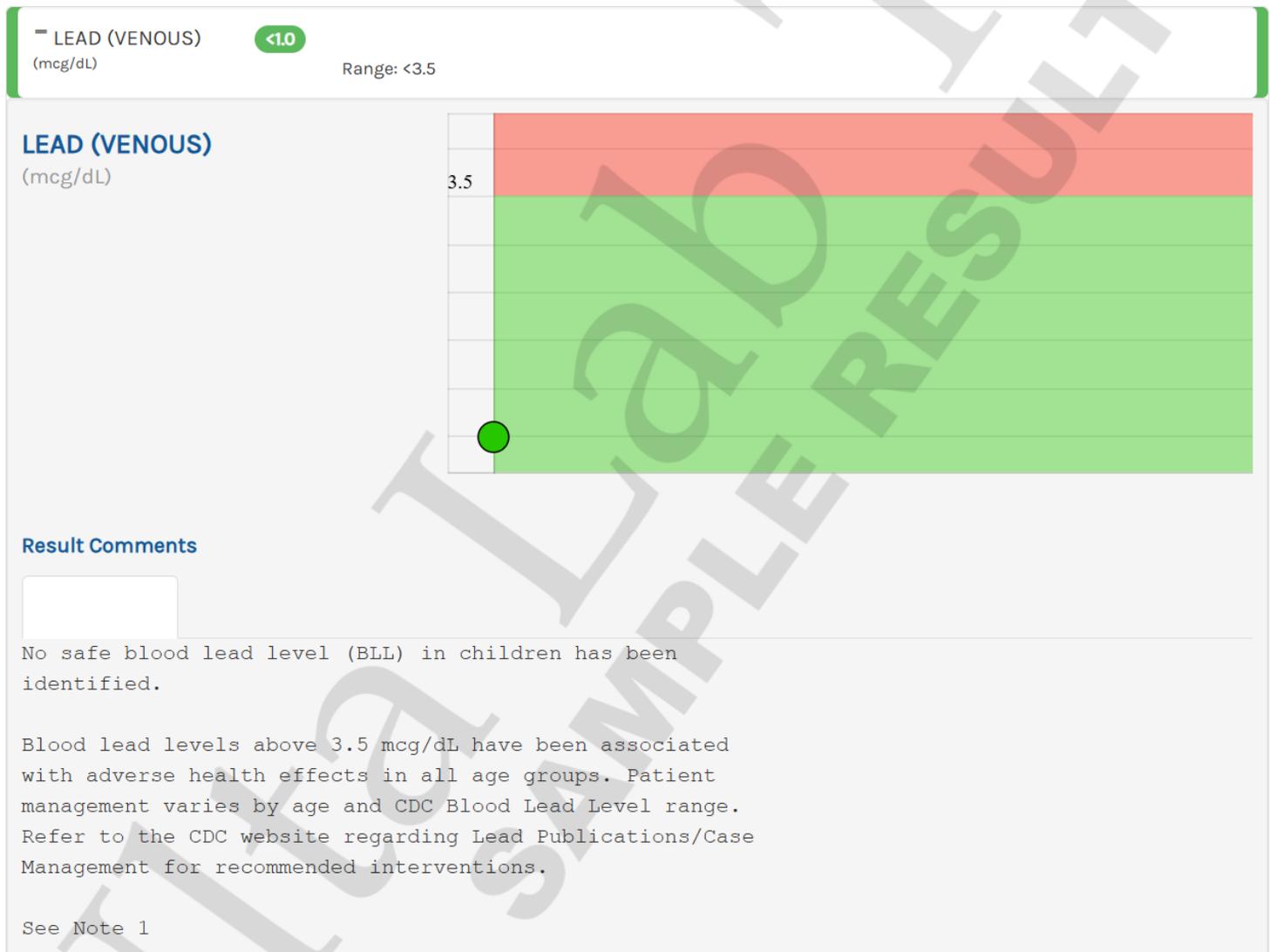
The relationship between dose and its effects on the exposed organism is of high significance in toxicology. The chief criterion regarding the toxicity of a chemical is the dose, i.e. the amount of exposure to the substance.

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### Lead Exposure

Tests for lead levels in the blood. Lead is a soft metal present in the environment. When it is inhaled or ingested, lead can cause damage to the brain, organs, and nervous system. Even at low levels, it can cause irreversible damage without causing physical symptoms. In an infant, lead can cause permanent cognitive impairment, behavioral disorders, and developmental delays. Lead exposure can cause weakness, anemia, nausea, weight loss, fatigue, headaches, stomach pain, and kidney, nervous system, and reproductive dysfunction.

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### Heavy Metals

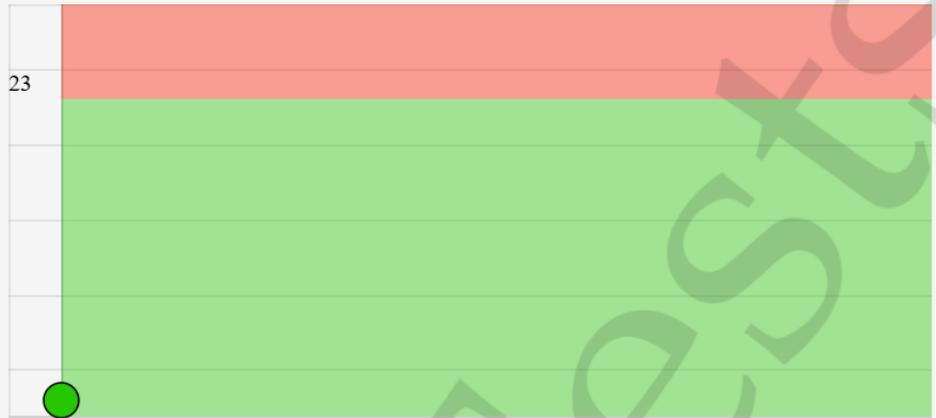
Heavy Metal Lab tests are used to screen for or to diagnose heavy metal poisoning in those who may have been acutely or chronically exposed to one or more heavy metals and to monitor excessive metal concentrations in those who work with various heavy metals. Testing is also conducted to monitor the efficacy of chelation therapy, a treatment to rid the body of high amounts of a heavy metal.

ARSENIC, BLOOD  
(mcg/L)

<3

Range: <23

### ARSENIC, BLOOD (mcg/L)



#### Result Comments

Whole Blood Arsenic level >100 mcg/L is indicative of acute/chronic exposure. Urine is usually the best specimen for the analysis of arsenic in body fluids. Blood levels tend to be low even when urine concentrations are high.

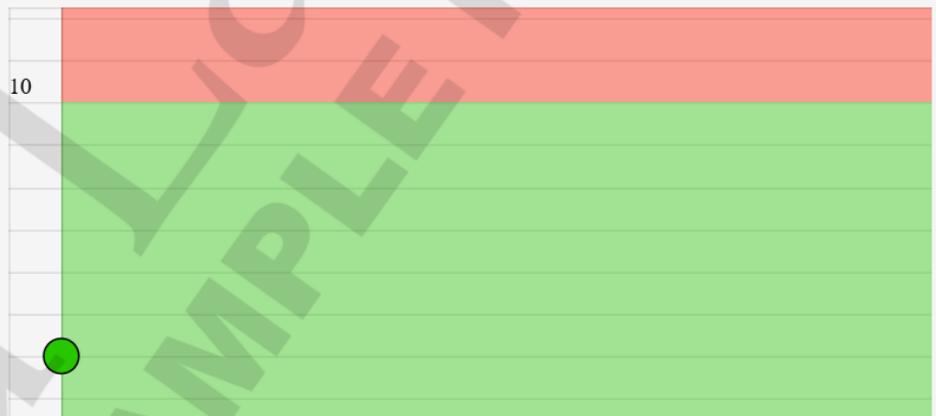
See Note 1

MERCURY, BLOOD  
(mcg/L)

<4

Range: <OR=10

### MERCURY, BLOOD (mcg/L)



#### Result Comments

See Note 1

Note 1

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics. 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.