

Reimbursement Policy

Intracellular Micronutrient Analysis

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I. Policy Description

Micronutrients are dietary components, often referred to as vitamins and minerals, which although only required by the body in small amounts, are vital to development, disease prevention, and wellbeing. Micronutrients are not produced in the body and must be derived from the diet. Micronutrients are critical for healthy development, disease prevention, and wellbeing.^{1,2} Micronutrients include essential trace elements such as boron, iron, zinc, selenium, manganese, iodine, copper, molybdenum, cobalt, and chromium,^{3,4} and essential vitamins such as vitamins A, B, C, D, and K (organic).⁵

II. Indications and/or Limitations of Coverage

Application of coverage criteria is dependent upon an individual's benefit coverage at the time of the request. Specifications pertaining to Medicare and Medicaid can be found in the "Applicable State and Federal Regulations" section of this policy document.

The following does not meet coverage criteria due to a lack of available published scientific literature confirming that the test(s) is/are required and beneficial for the diagnosis and treatment of an individual's illness.

- 1) Intracellular micronutrient panel testing (e.g., SpectraCell, Cell Science Systems cell micronutrient assay, ExaTest) **DOES NOT MEET COVERAGE CRITERIA.**

III. Applicable State and Federal Regulations

DISCLAIMER: If there is a conflict between this policy and any relevant, applicable government policy for a particular member [e.g., Local Coverage Determinations (LCDs) or National Coverage Determinations (NCDs) for Medicare and/or state coverage for Medicaid], then the government policy will be used to make the determination. For the most up-to-date Medicare policies and coverage, please visit the Medicare search website: <http://www.cms.gov/medicare-coverage-database/search.aspx>. For the most up-to-date Medicaid policies and coverage, visit the applicable state Medicaid website.

Food and Drug Administration (FDA)

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Intracellular micronutrient testing is offered by companies SpectraCell, IntraCellular Diagnostics, and Cell Science Systems Corporation which have Clinical Laboratories Improvement Amendments (CLIA) accredited laboratories. SpectraCell’s micronutrient panel test, the IntraCellular Diagnostics ExaTest, Genova Diagnostic’s NutrEval FMV, and the Cell Science Systems Cellular Micronutrient Assay (CMA) have not been through the FDA approval process.

Many labs have developed specific tests that they must validate and perform in house. These laboratory-developed tests (LDTs) are regulated by the Centers for Medicare and Medicaid (CMS) as high-complexity tests under the Clinical Laboratory Improvement Amendments of 1988 (CLIA '88). LDTs are not approved or cleared by the U. S. Food and Drug Administration; however, FDA clearance or approval is not currently required for clinical use.

IV. Applicable CPT/HCPCS Procedure Codes

CPT	Code Description
82128	Amino acids; multiple, qualitative, each specimen
82136	Amino acids, 2 to 5 amino acids, quantitative, each specimen
82180	Ascorbic acid (vitamin c), blood
82310	Calcium; total
82379	Carnitine (total and free), quantitative each specimen
82495	Chromium
82525	Copper
82607	Cyanocobalamin (Vitamin B-12);
82652	Vitamin D; 1, 25 dihydroxy, includes fraction(s), if performed
82725	Fatty acids, nonesterified
82746	Folic acid; serum
82978	Glutathione
83735	Magnesium
83785	Manganese
84207	Pyridoxal phosphate (vitamin b-6)
84252	Riboflavin (vitamin b-2)
84255	Selenium
84425	Thiamine (vitamin b-1)
84446	Tocopherol alpha (Vitamin E)
84590	Vitamin A
84591	Vitamin, not otherwise specified
84597	Vitamin K
84630	Zinc
84999	Unlisted chemistry procedure

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CPT	Code Description
86353	Lymphocyte transformation, mitogen (phytomitogen) or antigen induced
88348	Electron microscopy, diagnostic

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Procedure codes appearing in policy documents are included only as a general reference tool for each policy. They may not be all-inclusive.

V. Evidence-based Scientific References

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