



ND

Medical Policies



Print

Policy Number: L-191

Policy Name: Intracellular Micronutrient Testing Panel

Policy Type: Medical

Policy Subtype: Laboratory

Effective Date: 09-15-2025

Description

Intracellular micronutrient testing (also known as: micronutrient testing, essential metabolic analysis, leukocyte nutrient analysis, functional micronutrient analysis) is a novel lab panel that measures the intracellular level of multiple nutrients. Micronutrients measured by this test include but are not limited to the following:

- Vitamins- A, B1, B2, B3, B6, B12, C, D, K, E
- Biotin, Folate, Pantothenate
- Minerals- Calcium, Magnesium, Manganese, Zinc, Copper
- Amino Acids, Asparagine, Glutamine, Serine
- Fatty acids, Oleic Acid
- Antioxidants -Alpha Lipoic Acid, Coenzyme Q10, Cysteine, Glutathione, Selenium
- Carbohydrate Metabolism- Chromium, Fructose Sensitivity, Glucose-Insulin Metabolism
- Metabolites- Choline, Inositol, Carnitine
- Total antioxidant function and immune Response Score (offered by SpectraCell Laboratories)

Policy Application

All claims submitted under this policy's section will be processed according to the policy effective date and associated revision effective dates in effect on the date of service.

Criteria

Coverage is subject to the specific terms of the member's benefit plan.

Intracellular micronutrient testing panel is considered experimental/investigational, and therefore, non-covered because the safety and/or effectiveness of this service cannot be established by the available published peer-reviewed literature.

Procedure Codes

82136	82180	82306	82310	82379	82495	82525
82607	82652	82725	82746	82978	83735	83785
84207	84252	84255	84425	84446	84590	84591
84597	84630	84999	86353	88348		

Professional Statements and Societal Positions Guidelines

Not Applicable

Diagnosis Codes

Not Applicable

CURRENT CODING

CPT:

82136	AMINO ACIDS 2-5 AMINO ACIDS QUANTITATIVE EA SPEC	Commercial
82180	ASSAY OF ASCORBIC ACID BLOOD	Commercial
82306	25 HYDROXY INCLUDES FRACTIONS IF PERFORMED	Commercial
82310	CALCIUM TOTAL	Commercial
82379	CARNITINE QUANTITATIVE EACH SPECIMEN	Commercial
82495	ASSAY OF CHROMIUM	Commercial
82525	ASSAY OF COPPER	Commercial
82607	CYANOCOBALAMIN VITAMIN B-12	Commercial
82652	1 25 DIHYDROXY INCLUDES FRACTIONS IF PERFORMED	Commercial
82725	FATTY ACIDS NONESTERIFIED	Commercial

82746	ASSAY OF FOLIC ACID SERUM	Commercial
82978	ASSAY OF GLUTATHIONE	Commercial
83735	ASSAY OF MAGNESIUM	Commercial
83785	ASSAY OF MANGANESE	Commercial
84207	ASSAY OF PYRIDOXAL PHOSPHATE	Commercial
84252	ASSAY OF RIBOFLAVIN-VITAMIN B-2	Commercial
84255	ASSAY OF SELENIUM	Commercial
84425	ASSAY OF THIAMINE-VITAMIN B-1	Commercial
84446	ASSAY OF TOCOPHEROL ALPHA VITAMIN E	Commercial
84590	ASSAY OF VITAMIN A	Commercial
84591	ASSAY OF VITAMIN NOT OTHERWISE SPECIFIED	Commercial
84597	ASSAY OF VITAMIN K	Commercial
84630	ASSAY OF ZINC	Commercial
84999	UNLISTED CHEMISTRY PROCEDURE	Commercial
86353	LYMPHOCYTE TR MITOGEN/AG INDUCED BLASTOGENESIS	Commercial
88348	ELECTRON MICROSCOPY DIAGNOSTIC	Commercial
82136	AMINO ACIDS 2-5 AMINO ACIDS QUANTITATIVE EA SPEC	Medicaid Expansion
82180	ASSAY OF ASCORBIC ACID BLOOD	Medicaid Expansion
82306	25 HYDROXY INCLUDES FRACTIONS IF PERFORMED	Medicaid Expansion
82310	CALCIUM TOTAL	Medicaid Expansion
82379	CARNITINE QUANTITATIVE EACH SPECIMEN	Medicaid Expansion
82495	ASSAY OF CHROMIUM	Medicaid Expansion
82525	ASSAY OF COPPER	Medicaid Expansion
82607	CYANOCOBALAMIN VITAMIN B-12	Medicaid Expansion
82652	1 25 DIHYDROXY INCLUDES FRACTIONS IF PERFORMED	Medicaid Expansion
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88348	ELECTRON MICROSCOPY DIAGNOSTIC	Medicaid Expansion

References

1. DiNicolantonio JJ, O'Keefe JH, Wilson W. Subclinical magnesium deficiency: A principal driver of cardiovascular disease and a public health crisis. *Open Heart*. 2018;5:e000668.
2. SpectraCell Laboratories. Micronutrient Test. <https://spectracell.sitewrench.com/search-tests>
3. SpectraCell Laboratories Micronutrient Testing. <https://spectracell.sitewrench.com/our-science>. Accessed June 14, 2022.
4. Shi Y, Zou Y, Shen Z, et al. Trace elements, PPARs, and metabolic syndrome. *Int J Mol Sci*. 2020;21(7):2612.
5. Tam E, Keats EC, Rind F, et al. Micronutrient supplementation and fortification interventions on health and development outcomes among children under-five in low- and middle-income countries: A systematic review and meta-analysis. *Nutrients*. 2020;12(2):289.
6. Kaegi-Braun N, Germann S, Faessli M, et al. Effect of micronutrient supplementation in addition to nutritional therapy on clinical outcomes of medical inpatients: Results of an updated systematic review and meta- analysis. *Eur J Clin Nutr*. 2022;76(7):964-972.
7. Owczarek M, Jurek J, Nolan E, et al. Nutrient deficiency profiles and depression: A latent class analysis study of American population. *J Affect Disord*. 2022;317:339-346.
8. Barbarawi M, Kheiri B, Zayed Y, et al. Vitamin D supplementation and cardiovascular disease risks in more than 83 000 individuals in 21 randomized clinical trials: A meta-analysis. *JAMA Cardiol*. 2019;4(8):765-776.

ND Committee Review

Internal Medical Policy Committee 7-16-2019 New Policy - *Effective September 02, 2019*

- *Adopted* policy

Internal Medical Policy Committee 5-19-2020 - *Effective July 06, 2020*

- Annual Review

Internal Medical Policy Committee 5-20-2021 - *Effective July 05, 2021*

- Annual Review-no changes in criteria

Internal Medical Policy Committee 11-23-2021 Revision - *Effective January 03, 2021*

- *Updated* language

Internal Medical Policy Committee 9-28-2022 - *Effective November 07, 2022*

- Annual Review - no changes in criteria

Internal Medical Policy Committee 9-12-2023 - *Effective November 06, 2023*

- Annual Review - no changes in criteria

Internal Medical Policy Committee 1-16-2024 Revision - *Effective March 04, 2024*

- *Updated* references

Internal Medical Policy Committee 1-14-2025 - *Effective March 03, 2025*

- Annual Review - no changes in criteria; and
- *Added* Policy Application

Disclaimer

Current medical policy is to be used in determining a Member's contract benefits on the date that services are rendered. Contract language, including definitions and specific inclusions/exclusions, as well as state and federal law, must be considered in determining eligibility for coverage. Members must consult their applicable benefit plans or contact a Member Services representative for specific coverage information. Likewise, medical policy, which addresses the issue(s) in any specific case, should be considered before utilizing medical opinion in adjudication. Medical technology is constantly evolving, and the Company reserves the right to review and update medical policy periodically.

