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## Nutrient/Nutritional Panel Testing & Intracellular Micronutrient Analysis Corporate Medical Policy

File Name: Nutrient/Nutritional Panel Testing & Intracellular Micronutrient Analysis  
File Code: 2.04.VT73  
Origination: 06/2016  
Last Review: 04/2025  
Next Review: 04/2026  
Effective Date: 08/01/2025

### Description/Summary

#### Nutrient/Nutritional Panel Testing

Multi-marker nutritional panel testing is proposed for patients with certain chronic conditions (eg, mood disorders, fibromyalgia, and unexplained fatigue) as well as for healthy individuals seeking to optimize health and/or fitness.

For individuals who have mood disorders, fibromyalgia, or unexplained fatigue, or healthy individuals who seek to optimize health and fitness who receive nutritional panel testing, the evidence includes several systematic reviews on the association between a single condition and a single nutrient and on the treatment of specific conditions with nutritional supplements. The relevant outcomes are symptoms, change in disease status, and functional outcomes. Systematic reviews have found statistically significant associations between depression or fibromyalgia and levels of several nutrients; however, there is little evidence that nutrient supplementation for patients with depression improves health outcomes. An RCT has also found statistically significant associations between fatigue and levels of vitamin D. However, there is no direct evidence on the health benefits of nutritional panel testing for any condition, including testing healthy individuals, and no evidence that nutritional panel testing is superior to testing for individual nutrients for any condition. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

#### Intracellular Micronutrient Analysis

Commercial laboratories offer panels of tests evaluating intracellular levels of micronutrients (essential vitamins and minerals). Potential uses of this test include screening for nutritional deficiencies in healthy people or those with chronic disease and aiding in the diagnosis of disease in patients with nonspecific symptoms.

For individuals who have chronic diseases or nonspecific generalized symptoms who receive

intracellular micronutrient analysis, the evidence includes an observational study. The relevant outcomes are symptoms and change in disease status. No studies were identified that evaluated the clinical validity or clinical utility of intracellular micronutrient testing compared with standard testing for vitamin or mineral levels. Limited data from observational studies are available on correlations between serum and intracellular micronutrient levels. No randomized controlled trials or comparative studies were identified evaluating the direct health impact of intracellular micronutrient testing. Moreover, there are insufficient data to construct a chain of evidence that intracellular micronutrient testing would likely lead to identifying patients whose health outcomes would be improved compared with alternative approaches to patient management. The evidence is insufficient to determine the effects of the technology on health outcomes.

## Policy

### When a service is considered investigational

Nutrient/nutritional panel testing is considered **investigational** for all indications including but not limited to testing for nutritional deficiencies in patients with mood disorders, fibromyalgia, unexplained fatigue and healthy individuals.

Intracellular micronutrient panel testing is considered **investigational**.

## Policy Guidelines

### Coding Information

#### Nutrient/Nutritional Panel Testing

There are no specific codes for these panels of tests. Tests in the panel that have specific CPT® codes would be reported using those codes such as folic acid (82746), magnesium (83735), manganese (83785), vitamin A (84590), zinc (84630). There are codes for testing multiple amino acids - (82128) for qualitative testing and (82136) for quantitative testing. The unlisted chemistry code (84999) would be used once for the other tests in the panel that do not have specific codes (or are used incorrectly with multiple units).

#### Intracellular Micronutrient Analysis

There is no specific CPT® code for this panel of testing.

The specific CPT® codes for each of the elements of the panel. The following CPT® codes would most likely be reported such as (84590) for vitamin A (82310) for calcium; total, (82725) for fatty acids, etc.) along with multiple units of not otherwise specified (84591) or unlisted (84999) codes for elements of the panel which do not have specific codes.

According to SpectraCell Laboratories, their total antioxidant function testing (which they call SPECTROX®) is reported using (86353).

Intracellular Diagnostics uses electron microscopy for which (88348) might be reported.

## Reference Resources

1. Blue Cross and Blue Shield Association Medical Policy Reference Manual; 2.04.73  
- Intracellular Micronutrient Analysis; Last Revision 01/2025.
2. Blue Cross and Blue Shield Association Medical Policy Reference Manual; 2.04.136  
- Nutrient/Nutritional Panel Testing; Last Revision 01/2025.

## Document Precedence

Blue Cross and Blue Shield of Vermont (Blue Cross VT) Medical Policies are developed to provide clinical guidance and are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. The applicable group/individual contract and member certificate language, or employer's benefit plan if an ASO group, determines benefits that are in effect at the time of service. Since medical practices and knowledge are constantly evolving, Blue Cross VT reserves the right to review and revise its medical policies periodically. To the extent that there may be any conflict between medical policy and contract/employer benefit plan language, the member's contract/employer benefit plan language takes precedence.

## Audit Information

Blue Cross VT reserves the right to conduct audits on any provider and/or facility to ensure compliance with the guidelines stated in the medical policy. If an audit identifies instances of non-compliance with this medical policy, Blue Cross VT reserves the right to recoup all non-compliant payments.

## Administrative and Contractual Guidance

### Benefit Determination Guidance

Benefits are subject to all terms, limitations and conditions of the subscriber contract.

NEHP/ABNE members may have different benefits for services listed in this policy. To confirm benefits, please contact the customer service department at the member's health plan.

Federal Employee Program (FEP): Members may have different benefits that apply. For further information please contact FEP customer service or refer to the FEP Service Benefit Plan Brochure. It is important to verify the member's benefits prior to providing the service to determine if benefits are available or if there is a specific exclusion in the member's benefit.

Coverage varies according to the member's group or individual contract. Not all groups are required to follow the Vermont legislative mandates. Member Contract language takes precedence over medical policy when there is a conflict.

If the member receives benefits through an Administrative Services Only (ASO) group, benefits may vary or not apply. To verify benefit information, please refer to the member's employer benefit plan documents or contact the customer service department. Language in the

employer benefit plan documents takes precedence over medical policy when there is a conflict.

### Policy Implementation/Update information

|         |   |
|---------|---|
| 06/2016 | New Policy  |
| 03/2017 | Reviewed, policy statement remains unchanged  |
| 01/2019 | Reviewed, policy statement remains unchanged, updated references.   |
| 02/2020 | Reviewed, policy statement remains unchanged, summary language added, updated references.   |
| 02/2021 | Policy reviewed. Policy Statement unchanged.  |
| 02/2022 | Policy reviewed. Policy Statement remains unchanged, updated references.  |
| 03/2023 | Policy reviewed. Policy statement remains unchanged.<br>Description/Summary updated to accurately reflect updated evidence.<br>References updated. Minor grammatical changes. |
| 03/2024 | Policy Reviewed. No change to policy statement. References updated.   |
| 04/2025 | Policy reviewed. Minor grammatical edits. No changes to policy statement. References updated.   |

### Related Policies

Selected Blood, Serum and Cellular Allergy and Toxicity Tests  
Diagnosis and Management of Idiopathic Environmental Illnesses/Intolerance (IEI)

### Eligible providers

Qualified healthcare professionals practicing within the scope of their license(s).

### Approved by Blue Cross VT Medical Directors

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