MASSACHUSETTS

Blue Cross Blue Shield of Massachusetts is an Independent Licensee of the Blue Cross and Blue Shield Association

Medical Policy

Nutrient/Nutritional Panel Testing

Table of Contents

Policy Number: 745

BCBSA Reference Number: 2.04.136 (For Plan internal use only)

Related Policies

- Homocysteine Testing in the Screening, Diagnosis, and Management of Cardiovascular Disease, #016
- Intracellular Micronutrient Analysis, #073
- Cardiovascular Risk Panels, #664

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO Blue℠ and Medicare PPO Blue℠ Members

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

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	This is **not** a covered service.
Commercial PPO and Indemnity	This is **not** a covered service.
Medicare HMO Blue℠	This is **not** a covered service.
Medicare PPO Blue℠	This is **not** a covered service.

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes
There are no specific CPT codes.

Description
Nutritional panel testing aims to identify nutritional deficiencies that will lead to personalized nutritional supplement recommendations. Testing is proposed both for healthy individuals to optimize health and for patients with chronic conditions (eg, mood disorders, fibromyalgia, unexplained fatigue) to specify supplements that will ameliorate symptoms.

Genova Diagnostics offers nutritional/nutrient panel testing. Among the tests this company offers is NutrEval® FMV, which involves analysis of urine and blood samples and provides information on more than 100 markers including organic acids, amino acids, fatty acids, markers of oxidative stress (direct measurement of glutathione and CoQ10, and markers of oxidative injury and DNA damage) and nutrient elements (Table 1).[1,]Genova Diagnostics produces a report that includes test results categorized as minimal, moderate, or high need for support, along with recommendations for supplements and dosages for items categorized as high need. NutrEval FMV patient reports can recommend supplementation for any of the nutrients listed in Table 1 if they are found to be areas of high need.

NutrEval Plasma, also by Genova Diagnostics, is a similar test.[2,] The only difference between NutrEval FMV and NutrEval Plasma is that the former uses urine (first morning void) whereas the latter uses plasma (fasting sample) to measure amino acids.

SpectraCell Laboratories offers a micronutrient test that measures functional deficiencies at the cellular level.[3,] The test assesses how well the body uses 31 vitamins, minerals, amino and fatty acids, antioxidants, and metabolites (see Table 1). SpectraCell categorizes test results into adequate, borderline, and deficient, and offers supplementation suggestions based on each patient's deficiencies.

Table 1. Components of the NutrEval FMV and Spectra Cell Tests

Category	NutrEval FMV	Spectra Cell Nutrient Testing
B vitamins	Thiamin B1, riboflavin B2, niacin B3, pyridoxine B6, biotin B7, folic acid B9, cobalamin B12	Vitamin A, vitamin B1, vitamin B2, vitamin B3, vitamin B6, vitamin B12, biotin, folate, pantothenate, vitamin C, vitamin D, vitamin K
Minerals	Magnesium, manganese, molybdenum, zinc	Calcium, magnesium, manganese, zinc, copper
Fatty acids	Omega-3-oils	Oleic acid
Digestive support	Probiotics, pancreatic enzymes	
Other vitamins	Vitamin D	
Amino acids	Arginine, asparagine, cysteine, glutamine, glycine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, serine, taurine, threonine, tryptophan, tyrosine, valine	Asparagine, glutamine, serine

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

Summary of Evidence
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 and randomized controlled trials (RCTs) on the association between a single condition and a single nutrient and on the treatment of specific conditions with nutritional supplements. 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.

Policy History

Date	Action
1/2025	Annual policy review. References updated. Policy statements unchanged.
1/2024	Annual policy review. References updated. Policy statements unchanged.
2/2023	Annual policy review. Minor editorial refinements to policy statements; intent unchanged.
2/2022	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
2/2021	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
1/2020	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
2/2019	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
3/2018	Annual policy review. New references added.
1/2016	New medical policy describing investigational indications. Effective 1/1/2016.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References

1. Genova Diagnostics. NutrEval FMV; https://www.gdx.net/product/nutreval-fmv-nutritional-test-blood-urine. Accessed October 16, 2024.
2. Genova Diagnostics. NutrEval Plasma; https://www.gdx.net/product/nutreval-nutritional-test-plasma. Accessed October 15, 2024.
3. SpectraCell Laboratories Micronutrient Test Panel. https://spectracell.sitewrench.com/search-tests. Accessed October 16, 2024.
4. Petridou ET, Kousoulis AA, Michelakos T, et al. Folate and B12 serum levels in association with depression in the aged: a systematic review and meta-analysis. Aging Ment Health. Sep 2016; 20(9): 965-73. PMID 26055921
5. Cheungpasitporn W, Thongprayoon C, Mao MA, et al. Hypomagnesaemia linked to depression: a systematic review and meta-analysis. Intern Med J. Apr 2015; 45(4): 436-40. PMID 25827510
6. Swardfager W, Herrmann N, Mazereeuw G, et al. Zinc in depression: a meta-analysis. Biol Psychiatry. Dec 15 2013; 74(12): 872-8. PMID 23806573

7. Anglin RE, Samaan Z, Walter SD, et al. Vitamin D deficiency and depression in adults: systematic review and meta-analysis. Br J Psychiatry. Feb 2013; 202: 100-7. PMID 23377209
8. Hsiao MY, Hung CY, Chang KV, et al. Is Serum Hypovitaminosis D Associated with Chronic Widespread Pain Including Fibromyalgia? A Meta-analysis of Observational Studies. Pain Physician. 2015; 18(5): E877-87. PMID 26431141
9. Daniel D, Pirotta MV. Fibromyalgia--should we be testing and treating for vitamin D deficiency?. Aust Fam Physician. Sep 2011; 40(9): 712-6. PMID 21894281
10. Gowda U, Mutowo MP, Smith BJ, et al. Vitamin D supplementation to reduce depression in adults: meta-analysis of randomized controlled trials. Nutrition. Mar 2015; 31(3): 421-9. PMID 25701329
11. Taylor MJ, Carney S, Geddes J, et al. Folate for depressive disorders. Cochrane Database Syst Rev. 2003; 2003(2): CD003390. PMID 12804463
12. Nowak A, Boesch L, Andres E, et al. Effect of vitamin D3 on self-perceived fatigue: A double-blind randomized placebo-controlled trial. Medicine (Baltimore). Dec 2016; 95(52): e5353. PMID 28033244
13. U.S. Preventive Services Task Force (USPSTF).Iron Deficiency Anemia in Pregnant Women: Screening and Supplementation. 2024. https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/iron-deficiency-anemia-in-pregnant-women-screening-and-supplementation. Accessed October 14, 2024.
14. U.S. Preventive Services Task Force (USPSTF). Iron Deficiency Anemia: Screening. 2015; https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/iron-deficiency-anemia-in-young-children-screening#fullrecommendationstart. Accessed October 16, 2024.
15. U.S. Preventive Services Task Force (USPSTF). Vitamin D Deficiency: Screening. 2021; https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/vitamin-d-deficiency-screening. Accessed October 15, 2024.