

Medical Policy



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Joint Medical Policies are a source for BCBSM and BCN medical policy information only. These documents are not to be used to determine benefits or reimbursement. When Centers for Medicare and Medicaid (CMS) coverage rules are not fully developed, this medical policy may be used by BCBSM or BCN Medicare Advantage plans 42 CFR § 422.101 (b)(6). Please reference the appropriate certificate or contract for benefit information. This policy may be updated and is therefore subject to change.

*Current Policy Effective Date: 7/1/26
(See policy history boxes for previous effective dates)

Title: Total Parenteral Nutrition (Hyperalimentation)

Description

Total parenteral nutrition (TPN) is a way to provide all essential nutrients directly into the bloodstream through an intravenous (IV) line, usually a central venous catheter.

Medical Policy Statement

Total parenteral nutrition (TPN) is **established** as a therapeutic option for individuals with medical conditions that impair their ability to absorb the nutrients necessary to sustain life when benefit criteria are met.

TPN is **established** to bolster the nutritional status of severely malnourished individuals with medical or surgical conditions on a temporary basis when benefit criteria are met.

TPN used for all other indications is **experimental/investigational**. There is insufficient evidence to determine that the technology results in an improvement in net health outcomes.

Inclusionary and Exclusionary Guidelines

Inclusions

The following guidelines must be met in order for TPN to be a benefit:

- The individual can receive no more than 30 percent of his/her caloric needs orally
OR
The individual cannot benefit from tube feedings because of a malabsorptive disorder; **AND**
- Nutrients and their manner of administration for TPN must be specifically ordered by a physician and pre-approved on an individual consideration basis.

Diagnoses include but are not limited to:

- Crohn's disease
- Obstruction secondary to stricture or neoplasm of the esophagus or stomach
- Loss of the swallowing mechanism due to a central nervous system disorder, where there is risk of aspiration
- Short bowel syndrome secondary to small bowel resection
- Malabsorption due to enterocolic, enterovesical, or enterocutaneous fistulas (TPN being temporary until the fistula is repaired)
- Motility disorder (pseudo-obstruction)
- Newborn infants with catastrophic gastrointestinal anomalies such as tracheoesophageal fistula, gastroschisis, omphalocele or massive intestinal atresia
- Infants and young children who fail to thrive due to systemic disease or secondary to intestinal insufficiency associated with short bowel syndrome, malabsorption or chronic idiopathic diarrhea
- Individuals with prolonged paralytic ileus following major surgery or multiple injuries

Exclusions

Benefits for TPN are not available for the following:

- When the medical indication and benefit guidelines shown above are not met
- When used to increase protein or caloric intake in addition to the individual's daily diet
- In individuals with a stable nutritional status, in whom only short term parenteral nutrition might be required (for example, less than two weeks)
- For routine pre- and/or postoperative care
- If 750 calories per day or less are being administered by TPN

CPT/HCPCS Level II Codes

Established codes:

B4164 – B5200

B9004 – B9006

S9364 – S9368

36557 – 36573

Other codes (investigational, not medically necessary, etc.):

N/A

Notes:

- *Code(s) may not be covered by all contracts or certificates. Please consult customer or provider inquiry resources at BCBSM or BCN to verify coverage.*
- *Individual policy criteria determine the coverage status of the CPT/HCPCS code(s) on this policy. Codes listed in this policy may have different coverage positions (such as established or experimental/investigational) in other medical policies.*

Background

Total parenteral nutrition (TPN), also known as parenteral hyperalimentation, is used in patients with medical conditions that impair gastrointestinal absorption to a degree incompatible with life. TPN is also used to bolster the nutritional status of severely malnourished patients with medical or surgical conditions on a temporary basis.

TPN involves percutaneous transvenous implantation of a central venous catheter into the vena cava or right atrium. An infusion of nutritionally adequate hypertonic solution consisting of glucose (sugar), amino acids (protein), electrolytes (sodium, potassium), vitamins, minerals and sometimes fats is administered daily. An infusion pump is used to assure a steady flow of the solution either on a continuous (24-hour) or intermittent schedule.

Summary of Evidence

For individuals who have malignant bowel obstruction, are severely ill, or are malnourished, and receive TPN, evidence includes a systematic review and meta-analysis and contemporary clinical practice guidelines. The available evidence indicates that Total Parenteral Nutrition has benefits in selected populations. Particularly, TPN is the standard life sustaining therapy for chronic intestinal failure. In comparative studies TPN was found to prolong survival vs no nutritional support. Additionally, studies show TPN can provide nutritional support in severely ill or malnourished individuals so that they can continue cancer therapy, or recover from surgery, while they await the return of their gut function. There is sufficient evidence to determine that the technology results in an improvement in net health outcomes.

Rationale

Evidence reviews assess the clinical evidence to determine whether the use of a technology improves the net health outcome. Broadly defined, health outcomes are length of life, quality of life, and ability to function including benefits and harms. Every clinical condition has specific outcomes that are important to individuals and to managing the course of that condition. Validated outcome measures are necessary to ascertain whether a condition improves or worsens; and whether the magnitude of that change is clinically significant. The net health outcome is a balance of benefits and harms. The following is a summary of the key literature to date.

Multiple clinical trials have been conducted to determine the efficacy and safety of total parenteral nutrition (TPN) for numerous conditions including cancer, HIV, renal and liver failure and Crohn's disease. Studies have proven that together with effective oncologic treatment, nutritional support may also lessen morbidity and improve tumor response for those patients undergoing intense chemotherapy. TPN has also been shown to be effective in rebuilding lean tissues of malnourished HIV patients and minimizing nutrient loss during catabolic illness.

Ong et al (2021)⁷ published a systematic review and meta-analysis. Peritoneal carcinomatosis (PC) is often associated with malnutrition and an inability to tolerate enteral feeding. Although total parenteral nutrition (TPN) can be lifesaving for patients with no other means of nutritional support, its use in the management of PC patients remains controversial. Therefore, a systematic review and meta-analysis was performed to evaluate the benefit of TPN on the

overall survival of PC patients, in accordance with PRISMA guidelines. A total of 187 articles were screened; 10 were included in this review and eight were included in the meta-analysis. The pooled median overall survival of patients who received TPN was significantly higher than patients who did not receive TPN ($p = 0.040$). When only high-quality studies were included, a significant survival advantage was observed in PC patients receiving TPN ($p < 0.001$). Subgroup analysis of patients receiving chemotherapy demonstrated a significant survival benefit ($p = 0.008$) associated with the use of TPN. In conclusion, TPN may improve survival outcomes in PC patients.

Supplemental Information

The American Society for Parenteral and Enteral Nutrition (ASPEN) Guidelines, 2011. These include:⁷

Parental Nutrition is appropriate when:

- The GI tract is nonfunctional or inaccessible
- Enteral nutrition (EN) is contraindicated or insufficient
- EN fails to meet nutritional requirements
- the patient is malnourished and cannot meet needs enterally.

Therapy should be individualized based on clinical status and metabolic demand

ASPEN emphasize that enteral nutrition is preferred whenever feasible due to lower complication risk.

ASPEN recommends structured monitoring to prevent complications

Regulatory Status

Parenteral nutrition (PN) products are regulated in the United States by the Food and Drug Administration (FDA). The FDA regulates PN products as "drugs," and the approval of a new product depends on there being "substantial evidence" of safety and efficacy obtained from "adequate and well-controlled studies." The processes by which the FDA approves PN products in the United States are designed to protect patients from unsafe or ineffective products, but they may also contribute to delaying and preventing access to certain valuable new products. This tutorial is designed to inform the PN community about FDA processes with regard to PN products, including the structure of FDA review teams, requirements for investigational studies, applications for marketing approval, post approval clinical trial requirements, and requirements for studies in pediatric populations. Knowledge of how the FDA process works and how the FDA regulates PN products can help the PN community work together in advancing the development of new products.⁸

Government Regulations National:

National Coverage Determination (NCD) for Enteral and Parenteral Nutritional Therapy (180.2)

Effective Date of this Version: 04/10/2023-Retired

Indications and Limitations of Coverage

Covered As Prosthetic Device

There are patients, who because of chronic illness or trauma, cannot be sustained through oral feeding. These people must rely on either enteral or parenteral nutrition therapy, depending upon the particular nature of their medical condition.

Coverage of nutritional therapy as a Part B benefit is provided under the prosthetic device benefit provision which requires that the patient must have a permanently inoperative internal body organ or function thereof. Therefore, enteral and parenteral nutritional therapy are not covered under Part B in situations involving temporary impairments.

Coverage of such therapy, however, does not require a medical judgment that the impairment giving rise to the therapy will persist throughout the patient's remaining years. If the medical record, including the judgment of the attending physician, indicates that the impairment will be of long and indefinite duration, the test of permanence is considered met.

If the coverage requirements for enteral or parenteral nutritional therapy are met under the prosthetic device benefit provision, related supplies, equipment and nutrients are also covered under the conditions in the following paragraphs and the Medicare Benefit Policy Manual, Chapter 15, "Covered Medical and Other Health Services," §120.

Parenteral Nutrition Therapy

Daily parenteral nutrition is considered reasonable and necessary for a patient with severe pathology of the alimentary tract which does not allow absorption of sufficient nutrients to maintain weight and strength commensurate with the patient's general condition.

Since the alimentary tract of such a patient does not function adequately, an indwelling catheter is placed percutaneously in the subclavian vein and then advanced into the superior vena cava where intravenous infusion of nutrients is given for part of the day. The catheter is then plugged by the patient until the next infusion. Following a period of hospitalization which is required to initiate parenteral nutrition and to train the patient in catheter care, solution preparation, and infusion technique, the parenteral nutrition can be provided safely and effectively in the patient's home by nonprofessional persons who have undergone special training. However, such persons cannot be paid for their services, nor is payment available for any services furnished by nonphysician professionals except as services furnished incident to a physician's service.

For parenteral nutrition therapy to be covered under Part B, the claim must contain a physician's written order or prescription and sufficient medical documentation to permit an independent conclusion that the requirements of the prosthetic device benefit are met and that parenteral nutrition therapy is medically necessary. An example of a condition that typically qualifies for coverage is a massive small bowel resection resulting in severe nutritional deficiency in spite of adequate oral intake. However, coverage of parenteral nutrition therapy for this and any other condition must be approved on an individual, case-by-case basis initially and at periodic intervals of no more than three months by the Medicare Administrative Contractor (A/B MAC (B)) medical consultant or specially trained staff, relying on such medical and other documentation as the A/B MAC (B) may require. If the claim involves an infusion pump, sufficient evidence must be provided to support a determination of medical necessity for

the pump. Program payment for the pump is based on the reasonable charge for the simplest model that meets the medical needs of the patient as established by medical documentation.

Nutrient solutions for parenteral therapy are routinely covered. However, Medicare pays for no more than one month's supply of nutrients at any one time. Payment for the nutrients is based on the reasonable charge for the solution components unless the medical record, including a signed statement from the attending physician, establishes that the beneficiary, due to his/her physical or mental state, is unable to safely or effectively mix the solution and there is no family member or other person who can do so. Payment will be on the basis of the reasonable charge for more expensive premixed solutions only under the latter circumstances.

Local:

The CGS Administrators LLC Local Coverage Determination Parenteral Nutrition (L33798), was retired as of 11/12/2020. Revision Ending Date: 11/12/20

(The above Medicare information is current as of the review date for this policy. However, the coverage issues and policies maintained by the Centers for Medicare & Medicare Services [CMS, formerly HCFA] are updated and/or revised periodically. Therefore, the most current CMS information may not be contained in this document. For the most current information, the reader should contact an official Medicare source.)

Related Policies

- Enteral Nutrition
 - Intradialytic Parenteral Nutrition (IDPN)
 - Nutritional Counseling (BCN only) (retired)
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References

1. American Gastroenterological Association, "American gastroenterological association medical position statement: Parenteral nutrition," *Gastroenterology*, Vol. 121, No. 4, 2001, pp. 966-969.
2. Centers for Medicare & Medicaid Services (CMS), *Medicare Coverage Database*, "NCD for enteral and parenteral nutritional therapy (180.2)," Effective 7/11/1984. Retired <http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=242&ncdver=1&bc=AgAAgAAAAAAAAA%3d%3d&> (3/5/26).
3. Gramlich L, et al. Does enteral nutrition compared to parenteral nutrition result in better outcomes in critically ill adult patients? A systematic review of the literature. *Nutrition*. Vol. 20, 2004, pp. 843-848.
4. Jeejeebhoy KN. Enteral and parenteral nutrition: Evidence-based approach. *Proceedings of the Nutrition Society*. Vol. 60, 2001, pp. 399-402.
5. Martindale R, et al. Guidelines for the provision and assessment of nutrition support therapy in the adult critically ill patient. *Critical Care Medicine*. Vol. 37, No. 5, May 2009, pp. 1757-1761.
6. Ong, X.-Y. S., Sultana, R., Tan, J. W.-S., Tan, Q. X., Wong, J. S. M., Chia, C. S., & Ong, C.-A. J. (2021). The Role of Total Parenteral Nutrition in Patients with Peritoneal Carcinomatosis: A Systematic Review and Meta-Analysis. *Cancers*, 13(16), 4156. <https://doi.org/10.3390/cancers13164156>

7. Mueller, C., Compher, C., Ellen, D. M., & American Society for Parenteral and Enteral Nutrition (ASPEN) Board of Directors. (2011). ASPEN clinical guidelines: nutrition screening, assessment, and intervention in adults. *Journal of Parenteral and Enteral Nutrition*, 35(1), 16-24.
8. Tabor E. Tutorial on How the US Food and Drug Administration Regulates Parenteral Nutrition Products. JPEN J Parenter Enteral Nutr. 2020 Feb;44(2):174-181. doi: 10.1002/jpen.1752. Epub 2020 Jan 23. PMID: 31971272.

The articles reviewed in this research include those obtained in an Internet based literature search for relevant medical references through March 2026, the date the research was completed.

Joint BCBSM/BCN Medical Policy History

Policy Effective Date	BCBSM Signature Date	BCN Signature Date	Comments
03/01/08	1/29/08	1/06/08	Joint policy established
11/1/09	8/18/09	8/18/09	Routine maintenance
11/1/10	8/28/10	8/28/10	Routine maintenance
11/1/11	8/16/11	8/16/11	Routine maintenance
9/1/13	6/19/13	6/26/13	Routine maintenance
9/1/15	6/19/15	7/16/15	Routine maintenance
9/1/16	6/21/16	6/21/16	Routine maintenance
9/1/17	6/20/17	6/20/17	Routine maintenance Added local Medicare coverage determination and policy article
9/1/18	6/19/18	6/19/18	Routine maintenance
7/1/19	4/16/19		Routine maintenance Codes 36568, 36569 revised; Codes 36572, 36573 added
7/1/20	4/14/20		Routine maintenance New procedure code B4187 (EFD 1/1/20) is included in the code range under established codes
7/1/21	4/20/21		Routine maintenance
7/1/22	4/19/22		Routine maintenance
7/1/23	4/18/23		Routine maintenance (jf) Vendor Managed: NA
7/1/24	4/16/24		Routine maintenance (jf) Vendor Managed: NA

7/1/25	4/15/25		Routine maintenance (jf) Vendor Managed: NA Minor Edits: • Edited MPS patients replaced with individuals, removed not medically necessary” and replaced with “experimental/investigational”. • Edited inclusions patients replaced with individuals
7/1/26	4/21/26		Routine maintenance (jf/fr) Vendor Managed: NA • Formatting changes made: ○ Sections rearranged for better flow ○ Added Description and Background separated ○ MPS edited ○ Notes edited in the code section

Next Review Date: 2nd Qtr, 2027

BLUE CARE NETWORK BENEFIT COVERAGE
POLICY: TOTAL PARENTERAL NUTRITION

I. Coverage Determination:

Commercial HMO (includes Self-Funded groups unless otherwise specified)	Covered; criteria applies.
BCNA (Medicare Advantage)	See Government Regulations section.
BCN65 (Medicare Complementary)	Coinsurance covered if primary Medicare covers the service.

II. Administrative Guidelines:

- The member's contract must be active at the time the service is rendered.
- Coverage is based on each member's certificate and is not guaranteed. Please consult the individual member's certificate for details. Additional information regarding coverage or benefits may also be obtained through customer or provider inquiry services at BCN.
- The service must be authorized by the member's PCP except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Services must be performed by a BCN-contracted provider, if available, except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Payment is based on BCN payment rules, individual certificate and certificate riders.
- Appropriate copayments will apply. Refer to certificate and applicable riders for detailed information.
- CPT - HCPCS codes are used for descriptive purposes only and are not a guarantee of coverage.
- Duplicate (back-up) equipment is not a covered benefit.