

Epidermal Nerve Fiber Density Testing

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<u>Coverage Policy</u>	Surgical 98
<u>Version</u>	5

Member-specific benefits take precedence over medical policy and benefits may vary across plans. Refer to the individual's benefit plan for details ^{*}.

Purpose:

This policy addresses Epidermal Nerve Fiber Density Testing (ENFD).

Description & Definitions:

Small Nerve Fiber Pathology through Nerve Fiber Density Measurement an intra-epidermal nerve fiber density (IENFD) by skin punch biopsy where a small specimen to identify the amount of nerve fibers in the skin.

Criteria:

Epidermal nerve fiber density testing (ENFD) is considered medically necessary for individuals with suspected small fiber neuropathy and **ALL** of the following:

- Painful sensory neuropathy
- Physical examination shows no evidence of findings consistent with large-fiber neuropathy, such as reduced or absent muscle-stretch reflexes or reduced proprioception and vibration sensation
- Electromyography studies are normal and show no evidence of large fiber neuropathy
- Autonomic testing is normal and show no evidence of large fiber neuropathy
- Nerve conduction velocity studies are normal and show no evidence of large fiber neuropathy

Epidermal Nerve Fiber Density Testing (ENFD) is considered **not medically necessary** for any use other than those indicated in clinical criteria, to include but not limited to:

- To detect preclinical small fiber neuropathy in asymptomatic members who have **1 or more** of the following:
 - Diabetes
 - impaired glucose intolerance
 - hypothyroid persons, and for evaluation of individuals with Fabry disease, not an exclusive list) known to cause peripheral neuropathy
 - hereditary transthyretin (TTR) amyloidosis and iatrogenic TTR amyloidosis
 - Ehlers-Danlos syndromes

- Fabry disease
- fibromyalgia
- postural tachycardia syndrome
- REM sleep behavior disorder
- For monitoring disease progression or response to treatment
- Sweat gland nerve fiber density for the diagnosis of small-fiber neuropathy and other indications
- Diagnosis of endometriosis

Coding:

Medically necessary with criteria:

Coding	Description
11104	Punch biopsy of skin (including simple closure, when performed); single lesion
11105	Punch biopsy of skin (including simple closure, when performed); each separate/additional lesion (List separately in addition to code for primary procedure)

Considered Not Medically Necessary:

Coding	Description
	None

U.S. Food and Drug Administration (FDA) - approved only products only.

Document History:

Revised Dates:

- 2022: May
- 2021: May
- 2020: November
- 2019: September
- 2015: July
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- 2012: April

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- 2023: May
- 2019: December
- 2018: April
- 2017: January
- 2014: July
- 2012: July

Effective Date:

- August 2011

References:

Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

(2022, Aug 31). Retrieved Apr 18, 2023, from MCG: <https://careweb.careguidelines.com/ed26/index.html>

(2023). Retrieved Mar 15, 2023, from Hayes, Inc:

<https://evidence.hayesinc.com/search?q=%257B%2522text%2522:%2522cardiovascular%2520risk%2522,%2522title%2522:null,%2522termsource%2522:%2522pubmedchecker%2522,%2522page%2522:%257B%2522page%2522:0,%2522size%2522:50%257D,%2522type%2522:%2522all%2522,%2522so>

(2023). Retrieved Apr 18, 2023, from Centers for Medicare and Medicaid Services: [https://www.cms.gov/medicare-coverage-database/search-](https://www.cms.gov/medicare-coverage-database/search-results.aspx?keyword=Nerve+fiber+density&keywordType=starts&areald=s53&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all)

[results.aspx?keyword=Nerve+fiber+density&keywordType=starts&areald=s53&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all](https://www.cms.gov/medicare-coverage-database/search-results.aspx?keyword=Nerve+fiber+density&keywordType=starts&areald=s53&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all)

(2023). Retrieved Apr 18, 2023, from AIM Specialty Health (Carelton Medical Benefits Management):

https://guidelines.careltonmedicalbenefitsmanagement.com/?s=Epidermal+nerve+fiber+density+&et_pb_searchform_submit=et_search_proccess&et_pb_search_cat=11%2C1%2C96&et_pb_include_posts=yes

(2023). Retrieved Apr 18, 2023, from National Comprehensive Cancer Network: [https://www.nccn.org/search-](https://www.nccn.org/search-result?indexCatalogue=nccn-search-index&searchQuery=Nerve%20fiber%20density%20testing)

[result?indexCatalogue=nccn-search-index&searchQuery=Nerve%20fiber%20density%20testing](https://www.nccn.org/search-result?indexCatalogue=nccn-search-index&searchQuery=Nerve%20fiber%20density%20testing)

(2023). Retrieved Apr 18, 2023, from Department of Medical Assistance Services:

<https://vamedicaid.dmas.virginia.gov/manuals/provider-manuals-library#gsc.tab=0&gsc.q=nerve%20fiber%20density%20testing&gsc.sort=>

Guidelines. (2023). Retrieved Apr 18, 2023, from American Academy of Neurology:

<https://www.aan.com/guidelines/home/allguidelines>

Raasing, L., Vogel, O., Veltkamp, M., van Swol, C., & Grutters, J. (2021, Mar 02). Current View of Diagnosing Small Fiber Neuropathy. Retrieved Apr 18, 2023, from PubMed: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8075405/>

Smith, A., & Gibson, S. (2022, Feb 25). Skin biopsy for the evaluation of peripheral nerve disease. Retrieved Apr 18,

2023, from UpToDate: https://www.uptodate.com/contents/skin-biopsy-for-the-evaluation-of-peripheral-nerve-disease?search=Epidermal%20Nerve%20Fiber%20Density%20Testing&source=search_result&selectedTitle=1~11&usage_type=default&display_rank=1

Special Notes: *

Medical policies can be highly technical and complex and are provided here for informational purposes. These medical policies are intended for use by health care professionals. The medical policies do not constitute medical advice or medical care. Treating health care professionals are solely responsible for diagnosis, treatment, and medical advice. Sentara Health Plan members should discuss the information in the medical policies with their treating health care professionals. Medical technology is constantly evolving, and these medical policies are subject to change without notice, although Sentara Health Plan will notify providers as required in advance of changes that could have a negative impact on benefits.

Services mean both medical and behavioral health (mental health) services and supplies unless We specifically tell You otherwise. We do not cover any services that are not listed in the Covered Services section unless required to be covered under state or federal laws and regulations. We do not cover any services that are not Medically Necessary. We sometimes give examples of specific services that are not covered but that does not mean that other similar services are covered. Some services are covered only if We authorize them. When We say You or Your We mean You and any of Your family members covered under the Plan. Call Member Services if You have questions.

Keywords:

ENFD, nerve fiber, intraepidermal nerve fiber, IENF, SHP Epidermal Nerve Fiber Density Testing, SHP Surgical 98, Intraepidermal nerve fiber density (IENFD), Epidermal nerve fiber density (ENFD), reduced intraepidermal nerve fiber density (IENFD) skin biopsy