



MEDICAL COVERAGE POLICY

SERVICE: Nerve Graft with Radical Prostatectomy

Policy Number: 029

Effective Date: 04/01/2024

Last Review: 03/11/2024

Next Review: 03/11/2025

Important note: Unless otherwise indicated, medical policies will apply to all lines of business.

Medical necessity as defined by this policy does not ensure the benefit is covered. This medical policy does not replace existing federal or state rules and regulations for the applicable service or supply. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan documents. See the member plan specific benefit plan document for a complete description of plan benefits, exclusions, limitations, and conditions of coverage. In the event of a discrepancy, the plan document always supersedes the information in this policy.

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PRIOR AUTHORIZATION: Required

POLICY: Please review the plan's EOC (Evidence of Coverage) or Summary Plan Description (SPD) for coverage details.

For Medicare plans, please refer to appropriate Medicare NCD (National Coverage Determination) [230.4 Diagnosis and Treatment of Impotence](#). Medicare NCD or LCD specific InterQual criteria may be used when available. If there are no applicable NCD or LCD criteria, use the criteria set forth below.

For Medicaid plans, please confirm coverage as outlined in the [Texas Medicaid Provider Procedures Manual | TMHP](#) (TMPPM). If there are no applicable criteria to guide medical necessity decision making in the TMPPM, use the criteria set forth below.

BSWHP considers unilateral or bilateral nerve graft experimental and investigational in patients with erectile dysfunction who have undergone resection of one or both neurovascular bundles as part of radical prostatectomy because there is a paucity of peer-reviewed literature demonstrating efficacy.

BSWHP considers the Avance® Nerve Graft, Axogen 2 Nerve Wrap, Integra NeuralWrap™, and various collagen nerve cuff/wraps, unproven for all indications.

BACKGROUND:

Erectile dysfunction is a common problem after radical prostatectomy. In particular, spontaneous erections are usually absent in patients whose extent of prostate cancer requires bilateral resection of the neurovascular bundles as part of the radical prostatectomy procedure. A variety of noninvasive treatments are available, including vacuum constriction devices and intra-cavernosal injection therapy. However, spontaneous erectile activity is preferred by patients.

There has been interest in sural nerve grafting to replace cavernous nerves resected at the time of prostatectomy. The sural nerve is considered expendable and has been used extensively in other nerve grafting procedures, such as brachial plexus and peripheral nerve injuries. As applied to prostatectomy, a portion of the sural nerve is harvested from one leg and then anastomosed to the divided ends of the



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cavernous nerve. Reports are also being published using other nerves, such as the genitofemoral nerve.

Limited data are available regarding the long-term outcomes of sural nerve grafting. These data are insufficient to permit scientific conclusions regarding the long-term effectiveness of sural nerve grafting in men undergoing prostatectomy.

MANDATES: None

CODES:

Important note: Due to the wide range of applicable diagnosis codes and potential changes to codes, an inclusive list may not be presented, but the following codes may apply. Inclusion of a code in this section does not guarantee that it will be reimbursed, and patient must meet the criteria set forth in the policy language.

CPT Codes:	
CPT Not Covered:	64911, 64912, 64913, 64999
HPCS Not Covered	C9352 - Microporous collagen implantable tube (NeuraGen Nerve Guide), C9353 - Microporous collagen implantable slit tube (NeuraWrap Nerve Protector) C9355 - Collagen nerve cuff (NeuroMatrix) C9361 - Collagen matrix nerve wrap (NeuroMend Collagen Nerve Wrap)
ICD-10 codes:	
ICD-10 Not covered:	N52.01 - N52.9 Male erectile dysfunction following radical retro-pubic prostatectomy

POLICY HISTORY:

Status	Date	Action
New	12/6/2010	New policy
Reviewed	12/6/2011	Reviewed.
Reviewed	11/15/2012	Reviewed.
Reviewed	11/14/2013	No changes.
Reviewed	11/6/2014	No changes.
Reviewed	10/22/2015	No changes.
Reviewed	10/27/2016	No changes.
Reviewed	09/26/2017	No changes.
Reviewed	07/10/2018	Updated policy language
Reviewed	09/26/2019	No changes.
Reviewed	10/24/2020	-
Reviewed	10/28/2021	No changes



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Reviewed	10/27/2022	Added NCD 230.4 and coverage by Medicare
Reviewed	11/29/2023	Formatting changes and added hyperlinks to NCD and TMPPM, beginning and ending note sections updated to align with CMS requirements and business entity changes
Reviewed	03/11/2024	Corrected the "For Medicaid Plans" section to utilize this Medical Policy if TMPPM does not have medical necessity guidance.

REFERENCES:

The following scientific references were utilized in the formulation of this medical policy. BSWHP will continue to review clinical evidence related to this policy and may modify it at a later date based upon the evolution of the published clinical evidence. Should additional scientific studies become available and they are not included in the list, please forward the reference(s) to BSWHP so the information can be reviewed by the Medical Coverage Policy Committee (MCPC) and the Quality Improvement Committee (QIC) to determine if a modification of the policy is in order.

1. Canto, E.L., Nath, R.K., et al. Cavermap-assisted sural nerve interposition graft during radical prostatectomy. *Urologic Clinics of North America* (2001) 28(4):839-48.
2. Kim, E.D., Nath, R., et al. Bilateral nerve grafting during retropubic prostatectomy: extended follow up. *Urology* (2001 December) 58(6):983-7.
3. Singh, H., Karakiewicz, P., et al. Impact of unilateral interposition sural nerve grafting on recovery of urinary function after radical prostatectomy. *Urology* (2004 June) 63(6):1122-7.
4. Nelson, B.A., Chang, S.S., et al. Morbidity and efficacy of genitofemoral nerve grafts with radical retropubic prostatectomy. *Urology* (2006 April) 67(4):789-92.
5. Sim, H.G., Klot, M., et al. Two-year outcome of unilateral sural nerve interposition graft after radical prostatectomy. *Urology* (2006 December) 68(6):1290-4.
6. Nerve Graft in Association with Radical Prostatectomy. Chicago, Illinois: Blue Cross Blue Shield Association Medical Policy Reference Manual (2007 February) Surgery 7.01.81.
7. Secin, F.P., Koppie, T.M., et al. Bilateral cavernous nerve interposition grafting during radical retropubic prostatectomy: Memorial Sloan-Kettering Cancer Center experience. *The Journal of Urology* (2007 February) 177(2):664-8.
8. Namiki, S., Saito, S., et al. Impact of unilateral sural nerve graft on recovery of potency and continence following radical prostatectomy: three year longitudinal study. *The Journal of Urology* (2007 May 11) 178(1):212-6.
9. Hanson, G.R., Borden, L.S., et al. Erectile function following unilateral cavernosal nerve replacement. *Canadian Journal of Urology* (2008 April) 15(2):3990-3.
10. Nerve Graft in Association with Radical Prostatectomy. Chicago, Illinois: Blue Cross Blue Shield Association Medical Policy Reference Manual (2008 May) Surgery 7.01.81.
11. Satkunasivam, R., Appu, S., et al. Recovery of erectile function after unilateral and bilateral cavernous nerve interposition grafting during radical pelvic surgery. *Journal of Urology* (2009 March) 181(3):1258-63.
12. Patel VR, Samavedi S, Bates AS, et al. Dehydrated human amnion/chorion membrane allograft nerve wrap around the prostatic neurovascular bundle accelerates early return to continence and potency following robot-assisted radical prostatectomy: Propensity score-matched analysis. *Eur Urol*. 2015;67(6):977-980.



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Note:

Health Maintenance Organization (HMO) products are offered through Scott and White Health Plan dba Baylor Scott & White Health Plan, and Scott & White Care Plans dba Baylor Scott & White Care Plan. Insured PPO and EPO products are offered through Baylor Scott & White Insurance Company. Scott and White Health Plan dba Baylor Scott & White Health Plan serves as a third-party administrator for self-funded employer-sponsored plans. Baylor Scott & White Care Plan and Baylor Scott & White Insurance Company are wholly owned subsidiaries of Scott and White Health Plan. These companies are referred to collectively in this document as Baylor Scott & White Health Plan.

RightCare STAR Medicaid plans are offered through Scott and White Health Plan in the Central Managed Care Service Area (MRSA) and STAR and CHIP plans are offered through SHA LLC dba FirstCare Health Plans (FirstCare) in the Lubbock and West MRSAs.