

SUBJECT: SELECTIVE POSTERIOR (OR DORSAL) RHIZOTOMY FOR CEREBRAL PALSY

POLICY NUMBER: 7.01.20

CATEGORY: Technology Assessment

EFFECTIVE DATE: 07/02/99

REVISED DATE: 06/20/01, 04/17/02

ARCHIVED DATE: 02/20/03

EDITED DATE: 11/10/05, 11/16/06, 11/15/07, 11/20/08, 10/29/09, 10/28/10, 10/20/11, 12/20/12, 12/19/13

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- *If the member's subscriber contract excludes coverage for a specific service it is not covered under that contract. In such cases, medical policy criteria are not applied.*
- *Medical policies apply to commercial and Medicaid products only when a contract benefit for the specific service exists.*
- *Medical policies only apply to Medicare products when a contract benefit exists and where there are no National or Local Medicare coverage decisions for the specific service.*

POLICY STATEMENT:

- I. Based on our criteria and review of the peer-reviewed literature, selective posterior rhizotomy has been medically proven to be effective and therefore, **medically appropriate** when performed on patients meeting **ALL** of the following criteria:
 - A. Age 3 to 8 years of age; and
 - B. Spasticity confined mainly to the lower limbs, with evidence of voluntary muscle strength underlying the spasticity; and
 - C. Presence of intact trunk righting responses, evidence of underlying equilibrium of antigravity and selective motor control; and
 - D. No history of previous orthopedic surgery, or severe contractures or bony abnormalities.
- II. Based upon our criteria and review of the peer-reviewed literature, this procedure has not been shown to be medically effective in children who do not meet the above criteria (e.g., children with predominant dystonia and rigidity). Therefore, unless all the above criteria are met, the procedure is considered **investigational**.

Refer to Corporate Medical Policy # 11.01.03 regarding Experimental and Investigational Services.

DESCRIPTION:

Selective posterior rhizotomy is a neurosurgical procedure to reduce spasticity in highly selected patients with cerebral palsy by diminishing the number of afferent nerve transmissions to neuronal circuits that regulate the spinal stretch reflex. This procedure was developed in the early 1900's and has been greatly enhanced with new electrical stimulating devices.

Either a predetermined percentage of the dorsal rootlets are severed or electromyographic responses to direct electrical stimulation may be used to identify specific nerve roots involved in spasticity-producing circuits. Only those rootlets associated with an abnormal electromyographic response to electrical stimulation are divided. The remaining rootlets are left intact to preserve sensation.

Selective posterior rhizotomy has been offered to patients in an attempt to increase ambulation, and in a smaller subset of patients without ambulatory potential, but whose severe spasticity limits adequate care and handling.

RATIONALE:

Selective Posterior Rhizotomy is a procedure and therefore not subject to Food and Drug Administration (FDA) approval. Numerous controlled clinical trials have shown Selective Posterior Rhizotomy to be effective in treating spastic cerebral palsy. (Diagnosis of cerebral palsy in children under three years old may be incorrect and children over eight years of age likely to have contractures and/or have had orthopedic procedures.) Clinical trials have shown that Selective Posterior Rhizotomy improves net health outcomes and is more effective than intensive physiotherapy alone, and as effective as intrathecal Baclofen or Botulinum Toxin A administration. Selective Posterior Rhizotomy has shown improvement in net health outcomes outside investigational settings.

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Eligibility for reimbursement is based upon the

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CODES: Number

Eligibility for minimum benefit is based upon the benefit set forth in the member's subscriber contract.

CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.

Codes may not be all-inclusive as the AMA and CMS code updates may occur more frequently than policy updates.

<u>CPT:</u>	63185	Laminectomy with rhizotomy; one or two segments
	63190	more than two segments

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HCPCS: No specific code

ICD9: 343.0- 343.9 Infantile cerebral palsy (code range)

ICD10: G80.0-G80.9 Cerebral palsy (code range)

REFERENCES:

*BlueCross BlueShield Association. Selective posterior rhizotomy for the spasticity of cerebral palsy. Medical Policy Reference Manual Policy #7.01.18. 2003 Jul 17 (archived 10/09).

Graubert C, et al. Changes in gait at one year post-selective dorsal rhizotomy: results of a prospective randomized study. J Ped Orthoped 2000 July-Aug;10(4):496-500.

Gul SM, et al. Long-term outcome after selective posterior rhizotomy in children with spastic cerebral palsy. *Ped Neurosurg* 1999 Aug;31(2):84-95.

Loewen P, et al. Upper extremity performance and self-care skill changes in children with spastic cerebral palsy following selective posterior rhizotomy. *Ped Neurosurg* 1998 Oct;29(4):191-8.

Kim DS, et al. Selective posterior rhizotomy in children with cerebral palsy: a 10-year experience. *Child Nerv Syst* 2001 Sep;17(9):556-62.

McLaughlin J, et al. Selective dorsal rhizotomy: meta-analysis of three randomized controlled trials. *Develop Med Child Neurolog* 2002;44:17-25

Mittal S, et al. Functional performance following selective posterior rhizotomy: long-term results determined using a validated evaluative measure. *J Neurosurg* 2002 Sep;97(3):510-8.

Steinbok P. Outcomes after selective dorsal rhizotomy for spastic cerebral palsy. *Child Nerv Syst* 2001 Jan;17(1-2):1-18

von Koch CS, et al. Selective posterior rhizotomy and intrathecal baclofen for the treatment of spasticity. *Ped Neurosurg* 2001 Aug;35:57-65.

Subramanian N, et al. Gait before and 10 years after rhizotomy in children with cerebral palsy spasticity. *J Neurosurg* 1998 Jun;88(6):1014-9

KEY WORDS:

Cerebral palsy, Rhizotomy, Spasticity.

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CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

Based on our review, there is no specific regional or national coverage determination addressing selective posterior rhizotomy for cerebral palsy.