



**Clinical Review Criteria**  
**Laparoscopic Uterine Nerve Ablation (LUNA) for Dysmenorrhea**

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**Criteria**

**For Medicare Members**

| Source                                 | Policy  |
|--|---|
| CMS Coverage Manuals                   | None  |
| National Coverage Determinations (NCD) | None  |
| Local Coverage Determinations (LCD)    | None  |
| Local Coverage Article                 | None  |
| Kaiser Permanente Medical Policy       | Due to the absence of an active NCD, LCD, or other coverage guidance, Kaiser Permanente has chosen to use their own Clinical Review Criteria, " <b>Laparoscopic Uterine Nerve Ablation (LUNA) for Dysmenorrhea</b> ," for medical necessity determinations. Refer to the Non-Medicare criteria below. |

**For Non-Medicare Members**

Kaiser Permanente has elected to use the Laparoscopic Uterosacral Nerve Ablation (LUNA) (A-0284) MCG\* for medical necessity determinations. This procedure is not covered per MCG guidelines. For access to the MCG Clinical Guidelines criteria, please see the MCG Guideline Index through the provider portal under Quick Access.

\*MCG are proprietary and cannot be published and/or distributed. However, on an individual member basis, Kaiser Permanente can share a copy of the specific criteria document used to make a utilization management decision. If one of your patients is being reviewed using these criteria, you may request a copy of the criteria by calling the Kaiser Permanente Clinical Review staff at 1-800-289-1363 or access the MCG Guideline Index using the link provided above.

**If requesting this service, please send the following documentation to support medical necessity:**

- Last 6 months of clinical notes from requesting provider &/or specialist

The following information was used in the development of this document and is provided as background only. It is provided for historical purposes and does not necessarily reflect the most current published literature. When significant new articles are published that impact treatment option, Kaiser Permanente will review as needed. This information is not to be used as coverage criteria. Please only refer to the criteria listed above for coverage determinations.

**Background**

Dysmenorrhea refers to painful cramping in the lower abdomen that occurs during or just before the menses. The cramping sensation is often accompanied by other symptoms, including sweating, headaches, nausea and vomiting. Dysmenorrhea is sometimes divided into two sub-categories. Primary dysmenorrhea is menstrual pain without any identifiable organic pathology and generally first occurs in women younger than 20. Secondary dysmenorrhea is menstrual pain associated with an identifiable pathological condition, such as endometriosis, cervical stenosis or pelvic adhesions, and is most often seen in women over 20 (Stenchever, 2001).

Non-steroidal anti-inflammatory drugs (NSAIDS) are the standard therapy for primary dysmenorrhea. These act by suppressing prostaglandin levels. Although the pathogenesis of primary dysmenorrhea is still not known, there

is a close association between dysmenorrhea symptoms and an elevated level of prostaglandin F2a. Oral contraceptive pills (OCPs) are also a commonly prescribed medication treatment for primary dysmenorrhea. OCPs may relieve dysmenorrhea because of a modulating effect on the hypothalamus or a direct reduction in the amount of endometrium present (Stenchever, 2001). Treatment of secondary dysmenorrhea generally involves treating the underlying condition.

Pelvic nerve surgery can be used to treat primary dysmenorrhea that fails to respond to medical therapy and can be used in conjunction with other surgical procedures for secondary dysmenorrhea, such as operative laparoscopy for endometriosis. Laparoscopic uterine nerve ablation (LUNA) involves the use of laser or cauterization to destroy nerves in the uterosacral ligaments, at the point where they insert into the cervix. Doyle first reported that vaginal transection of the uterosacral nerves could be effective for dysmenorrhea in 1955. LUNA is generally associated with few side effects. Potential rare complications include uterine prolapse and bladder dysfunction. There is also a second type of pelvic nerve surgery, laparoscopic presacral neurectomy (LPN). This involves the total removal of the presacral nerves that lie within the boundary of the interiliac triangle and is generally believed to have more side effects than LUNA. More radical surgery, such as hysterectomy, is the treatment of last resort for patients with persistent dysmenorrhea (Proctor et al., 2006; Johnson et al., 2004).

LUNA for dysmenorrhea has not been previously reviewed for MTAC.

## Medical Technology Assessment Committee (MTAC)

### Laparoscopic Uterine Nerve Ablation

#### 04/03/2006: MTAC REVIEW

**Evidence Conclusion:** Evidence from the two largest and highest quality RCTs (Johnson et al., 2004; Vercellini et al., 2003) suggests that laparoscopic uterine nerve ablation (LUNA) is not an effective treatment for secondary dysmenorrhea (dysmenorrhea among women with symptoms of endometriosis). The Vercellini study was limited by lack of an intention to treat analysis on pain outcomes. There is insufficient evidence to draw conclusions about laparoscopic uterine nerve ablation (LUNA) as a treatment for primary dysmenorrhea. There is evidence from only one well-done RCT comparing LUNA to a control group (Johnson et al., 2004). However, this study was designed to evaluate LUNA for pelvic pain, not specifically dysmenorrhea. The study included some women who did not present with dysmenorrhea and results were not stratified according to baseline dysmenorrhea status. There were four main pain outcomes. In addition to dysmenorrhea, these were non-menstrual pelvic pain, deep dyspareunia and dyschezia. In the intention to treat analysis, the Johnson study found one statistically significant outcome at  $p < 0.05$ . This was reduction in dysmenorrhea, favoring the LUNA group ( $p = 0.045$ ). If the investigators had adjusted for multiple comparisons (i.e. the four primary pain outcomes), the difference in treatment success between the LUNA and control groups would not have been statistically significant.

**Articles:** There was a Cochrane Collaboration systematic review on surgical interruption of pelvic nerve pathways for dysmenorrhea. The Cochrane literature search identified two high-quality RCTs on LUNA for dysmenorrhea. These two RCTs, which were also identified in the Medline search, were critically appraised. The remainder of the RCTs identified by Cochrane were small and had methodological flaws. The Cochrane Collaboration investigators searched the literature through June 2004. No RCTs on LUNA for dysmenorrhea were identified that were published after the Cochrane search data. *The RCTs reviewed were* Johnson NP, Farquhar CM, Crossley S et al. A double-blind randomized controlled trial of laparoscopic uterine nerve ablation for women with chronic pelvic pain. BJOG 2004; 111: 950-959. See [Evidence Table](#).

The use of laparoscopic uterine nerve ablation in the evaluation of dysmenorrhea does not meet the *Kaiser Permanente Medical Technology Assessment Criteria*.

## Applicable Codes

### Considered Not Medically Necessary:

| CPT® or HCPCS Codes | Description |
|---------------------|-------------|
| No specific codes   |             |

**\*Note:** Codes may not be all-inclusive. Deleted codes and codes not in effect at the time of service may not be covered.

**\*\*To verify authorization requirements for a specific code by plan type, please use the [Pre-authorization Code Check](#).**

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| Date Created | Date Reviewed   | Date Last Revised |
|--------------|---|-------------------|
| 04/27/2006   | 04/03/2006 <sup>MPC</sup> , 07/07/2015 <sup>MPC</sup> , 05/03/2016 <sup>MPC</sup> , 02/07/2017 <sup>MPC</sup> , 11/07/2017 <sup>MPC</sup> , 10/02/2018 <sup>MPC</sup> , 10/01/2019 <sup>MPC</sup> , 10/06/2020 <sup>MPC</sup> , 10/05/2021 <sup>MPC</sup> , 10/04/2022 <sup>MPC</sup> , 10/03/2023 <sup>MPC</sup> | 05/03/2016        |

MDCRPC Medical Director Clinical Review and Policy Committee

MPC Medical Policy Committee

| Revision History | Description           |
|------------------|-----------------------|
| 05/03/2016       | Adopted MCG guideline |