



## Topic Brief: Copper Intrauterine Devices for Birth Control

**Date:** 12/09/2020

**Nomination Number:** 0943

**Purpose:** This document summarizes the information addressing a nomination submitted on October 2, 2020 through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

**Issue:** This topic was nominated by an individual who seeks the development of a different form of copper intrauterine device (IUD) designed to suit the needs of individuals who have congenital uterine anomalies (CUAs) such as bicornuate or sub-septate uteruses, and do not respond well to other forms of contraception.

**Program Decision:** Although this is a compelling topic, the EPC program synthesizes and appraises existing evidence, and does not develop new interventions or technologies or fund primary research. As such, this nomination falls outside the scope of the EPC program.

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### Background

- Congenital uterine anomalies (CUAs) occur as the result of embryological maldevelopment of the müllerian ducts.<sup>1</sup> Bicornuate and septate uteruses represent the most common of these anomalies; the former consisting of an indented external uterine surface with two endometrial cavities, and the latter consisting of a normal external uterine surface with two endometrial cavities.<sup>2</sup>
- A 2011 meta-analysis<sup>3</sup> estimated that the overall prevalence of CUAs was 5.5 percent. Though most CUAs are asymptomatic, some may be associated with adverse reproductive outcomes. The same meta-analysis found that CUAs were more prevalent in women who experienced infertility and/or had a history of miscarriage.
- The application of commonly prescribed IUDs in individuals with CUAs may be more likely to result in birth control failure and/or discomfort. Copper IUDs are maximally effective when placed near the fundal portion of the uterine, which may be less achievable in uteruses with more variable shapes.<sup>4</sup> One recent study found that women with uterine anomalies experienced IUD malpositioning at a higher rate than controls.<sup>5</sup>

## Assessment Methods

We assessed nomination for priority for a systematic review or other AHRQ EHC report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one.

1. Determine the *appropriateness* of the nominated topic for inclusion in the EHC program.
2. Establish the overall *importance* of a potential topic as representing a health or healthcare issue in the United States.
3. Determine the *desirability of new evidence review* by examining whether a new systematic review or other AHRQ product would be duplicative.
4. Assess the *potential impact* a new systematic review or other AHRQ product.
5. Assess whether the *current state of the evidence* allows for a systematic review or other AHRQ product (feasibility).
6. Determine the *potential value* of a new systematic review or other AHRQ product.

## References

1. Akhtar, MA, Saravelos, SH, Li, TC, Jayaprakasan, K, on behalf of the Royal College of Obstetricians and Gynaecologists. Reproductive Implications and Management of Congenital Uterine Anomalies. Scientific Impact Paper No. 62. *BJOG* 2020; 127: e1– e13.  
<https://obgyn.onlinelibrary.wiley.com/doi/10.1111/1471-0528.15968>
2. ColumbiaDoctors. Uterine Anomaly. Access date: 12/11/2020.  
<https://www.columbiadoctors.org/condition/uterine-anomaly>.
3. Chan YY, Jayaprakasan K, Zamora J, Thornton JG, Raine-Fenning N, Coomarasamy A. The prevalence of congenital uterine anomalies in unselected and high-risk populations: a systematic review. *Hum Reprod Update*. 2011;17(6):761-771. doi:10.1093/humupd/dmr028.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3191936/>
4. Wildemeersch D, Hasskamp T, Goldstuck ND (2016) Malposition and displacement of intrauterine devices—diagnosis, management and prevention. *Clin Obstet Gynecol Reprod Med* 2: doi: 10.15761/COGRM.1000145. <https://www.oatext.com/Malposition-and-displacement-of-intrauterine-devices–diagnosis-management-and-prevention>.
5. Gerkowicz SA, Fiorentino DG, Kovacs AP, et al. Uterine structural abnormality and intrauterine device malposition: analysis of ultrasonographic and demographic variables of 517 patients. *Am J Obstet Gynecol* 2019;220:183.e1-8.  
[https://www.ajog.org/article/S0002-9378\(18\)31144-X/pdf](https://www.ajog.org/article/S0002-9378(18)31144-X/pdf)

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**Conflict of Interest:** None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

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