

The Levonorgestrel vs. Copper Intrauterine Device (IUD) for Emergency Contraception



The New England Journal of Medicine [published](#) results from a three-year (2016-2019) randomized controlled trial by researchers at the University of Utah, in close partnership with Planned Parenthood Association of Utah. The study compared the effectiveness of two intrauterine devices (IUDs) when used for emergency contraception – levonorgestrel 52 mg IUD and copper T380A IUD (commonly known as Liletta and Paragard, respectively).

Researchers found that the levonorgestrel 52 mg IUD is just as effective for use as emergency contraception as the copper T380A IUD. Additionally, this study showed that levonorgestrel 52 mg IUD is effective when used as a quick-start method of contraception. This study fills an important gap in understanding the effectiveness of the levonorgestrel IUD as an option for emergency contraception. For more on this study and Planned Parenthood research, go to plannedparenthood.org/research.

About Emergency Contraception and the Levonorgestrel IUD

- People can use multiple methods of emergency contraception to decrease their risk of pregnancy after unprotected intercourse.
- In the U.S., the FDA has approved two methods of emergency contraception, which come in pill form: oral levonorgestrel (LNG) (i.e., Plan B) and oral ulipristal acetate (i.e., ella). These methods don't provide protection against pregnancy beyond a one-time use.
- Research shows that the copper IUD is highly effective as emergency contraception when used up to (and including) five days from unprotected intercourse. Compared to oral emergency contraception options, the copper IUD is the most effective method of emergency contraception and is routinely used by health care providers. Until this study, there has been little data on the effectiveness of hormonal IUDs as emergency contraception.
- There are 5 different brands of IUDs approved for use in the United States, divided into 2 types: copper IUDs (Paragard) and hormonal IUDs (Mirena, Kyleena, Liletta, and Skyla). Some people prefer a hormonal IUD over the copper IUD because it can reduce menstrual bleeding and discomfort.
- The study also supports the idea that the levonorgestrel 52 mg IUD is also a quick-start method of contraception, meaning that the IUD can be placed at any day of the menstrual cycle.
- Until this study, best-practices for family planning service delivery recommended that patients obtaining a levonorgestrel IUD and reporting recent unprotected intercourse take emergency contraceptive pills along with their new IUD. This study shows that use of a backup method is not needed after placement of either a copper T380A or LNG 52 mg IUD.

The Study

- Researchers randomly assigned 711 patients to receive either the levonorgestrel 52 mg (n=355) IUD or the copper T380A IUD (n=356).
- All participants enrolled were seeking emergency contraception, reported at least one episode of unprotected sex within five days, and desired an IUD at Planned Parenthood Association of Utah.
- Researchers were interested in whether the hormonal LNG IUD was as effective as the copper IUD in protecting against pregnancy within the first month after IUD insertion.
- All participants had a negative urine pregnancy test before IUD placement. Follow-up at one month after IUD placement included reporting a urine pregnancy test either at home or during a follow-up visit at the health center.

Who Participated

- Participants were between 18 and 35 years old. The average age was **24** years in both the levonorgestrel 52 mg IUD or copper T380A IUD groups.
- About one third of participants identified as Hispanic in both groups (**33%** and **30%**); a smaller percentage identified as Black in both groups (**3.7%**).
- Participants reported an average of 2.1 episodes of unprotected intercourse in the five days preceding IUD placement
- The most often reported reason for seeking emergency contraception was, "Did not use any [contraceptive] method at last sex" (**41%** and **51%**).

The Results

- **One** pregnancy was reported in the LNG group, and **zero** pregnancies were reported in the copper group.
- Levonorgestrel 52 mg IUD is no less effective than the copper T380A IUD for use as emergency contraception following unprotected intercourse in the previous 5 days.
- One month pregnancy rates were **0.3%** in the LNG IUD group and **0%** in the copper IUD group.
- About half of participants in both groups were satisfied or very satisfied in the first month after IUD placement (**51%** and **55%**). The study continues to follow participants up to one year after IUD placement.
- The levonorgestrel 52 mg IUD is effective by itself for prevention of pregnancy within 5 days of unprotected intercourse. Providing additional oral emergency contraception is not necessary.
- These findings also apply to those desiring levonorgestrel 52 mg IUD **quick-start** after recent unprotected intercourse with a negative pregnancy test.

Read the full research study [here](#).