

# Levonorgestrel IUD

## for Emergency Contraception: an option for women

Levonorgestrel vs. Copper Intrauterine Devices for Emergency Contraception. N Engl J Med 2021; 384:335-44.

### Levonorgestrel IUD:

Releases levonorgestrel, a type of progestin hormone, which thickens the cervical mucus, inhibits sperm motility, and prevents fertilization by thinning the lining of the uterus. It provides prevention of pregnancy for up to 8 years. It is not currently FDA approved for emergency contraception because data are lacking on the efficacy of the Levonorgestrel IUD for this purpose.

### Copper IUD:

Does not contain hormones. It releases copper molecules that create a harsh environment for sperm, preventing fertilization. Unlike the levonorgestrel IUD, the copper IUD is FDA approved for emergency contraception. It can be inserted up to 5 days after unprotected intercourse or contraceptive failure. It provides prevention of pregnancy for up to 10 years.

### Study Design:

This randomized non inferiority trial was conducted at six clinics in Utah and included women who sought emergency contraception after unprotected intercourse within five days before their appointment. The women all agreed to have IUD placement, were randomly assigned and none of the women had knowledge of which IUD was to be inserted. The primary outcome was a positive pregnancy test one month after IUD insertion. When a pregnancy test was not available, health record data and survey were used to determine pregnancy status.

### Major Findings:

Seven hundred eighteen women were enrolled after more than 10,000 were assessed for eligibility; 356 received Copper IUD and 355 received levonorgestrel IUD. Ultimately, 321 receiving copper IUD and 317 receiving levonorgestrel IUD provided 1 month outcome data. There was just one pregnancy in the levonorgestrel group and none in the copper IUD group. Pregnancy data ultrasound confirmed failure of emergency contraception and the pregnancy ended in spontaneous abortion with a levonorgestrel IUD in place. The authors concluded that the levonorgestrel IUD was noninferior to the copper IUD when used for emergency contraception within 5 days of unprotected sexual intercourse. Pregnancy reported at the one month follow up was 0.3 % in the levonorgestrel IUD group and none in the copper IUD group.

### What Clinicians Need to Know:

The levonorgestrel IUD was noninferior to the copper IUD for emergency contraception.

