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## INTRA UTERINE DEVICE (IUD)

Ankita Veerbhan\*

Meerut Institute of Engineering and Technology, UPTU.

### Review Article

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#### \*For Correspondence

Ankita Veerbhan, Meerut  
Institute of Engineering and  
Technology, UPTU.

#### E-mail:

ankita.veerbhan08@gmail.com

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### ABSTRACT

An intrauterine device (IUD) is a small contraceptive device, most often 'T'-formed, regularly containing both copper or levonorgestrel. This device can put inside the uterus of a woman. An IUD can match inside of womb. Intrauterine devices (IUDs) are a type of delivery control that forestalls the attachment of a zygote to the womb. IUDs even have been known as "intrauterine contraception" (IUC). Some IUDs accredited could contain drugs that are released over time to facilitate the contraceptive result. An IUD is a type of long-acting reversible contraception (LARC).

### INTRODUCTION

The fertilization of sperm with one of the egg leads to pregnancy of a woman. The method of contraception prevents the pregnancy either by preventing fertilization of sperm and ova, or by preventing the implantation of fertilized egg [1-10]. Intrauterine device is one of the widely used method of contraception. An IUD is a tiny T-shaped, can be made up of plastic and copper which can put inside the womb by a principally proficient doctor or nurse. It costs between \$0 and \$1,000 up entrance, however lasts up to 12 years [11-16].

#### *Types of IUDs*

**Hormonal IUD:** This type of IUD contains levonorgestrel, a manufactured hormone and is a type of the hormone progestin. This IUD is slightly more effective in preventing pregnancy as compared to copper one [17-19]. Hormonal IUDs restrict being pregnant for three to five years, depending on what type of hormone is being used.

**Copper IUD:** Essentially the most in most cases used IUD is the copper IUD. Copper wire is wound across the stem of the T-formed IUD. The copper IUD can keep in situation for as much as 10 years and is tremendously effective in preventing the fertilization and implantation of zygote.

#### *Mechanism of working*

Each varieties of IUD prevent the fusion of ova and sperm by means of damaging sperm. The IUD additionally impacts the uterine lining (the place that facilitates the growth of fertilized embryo).

**Hormonal IUD:** It blocks the fusion of egg and sperm by damaging or killing sperm and making the mucus lining within the cervix thick and sticky, as a result of which sperm cannot penetrate the zona pellucida layer of uterus. It also facilitates the endometrium lining of uterus to grow more thicker so as to intercept the zygote from attachment to womb and thus, from growth [20-24]. One of the advantages of using this IUD is that it can reduce the menstrual bleeding and pain upto an extent.

Copper IUD: Copper is poisonous to sperm. It causes the uterus and fallopian tubes to secrete a fluid that destroy the sperm. This fluid contains WBCs, Cu<sup>2+</sup>, enzymes and cyclic fatty acids [25-27].

### **Advantages of Having an IUD**

- Long acting - can remain in a specified place for three or extra years.
- Reversible - viable to get pregnant as quickly as the IUD is eliminated.
- Very effective – at least 99%.
  - may also be quite simply eliminated (by means of any healthcare professional or nurse) in case you don't find it irresistible or wish to get pregnant.
- Does not have an effect on breastfeeding [28-31].
- No evidence of an increased hazard of melanoma [32-35].
- Copper IUDs can be used to prevent being pregnant after unprotected sexual activity (emergency contraception).

### **Side effects from having an IUD put in**

- Expulsion
- uterus perforation
- pelvic inflammatory disorder
- irregular menstrual cycle
- ectopic pregnancy
- IUDs with progestogen confer an accelerated threat of ovarian cysts [36,37].
- IUDs with copper confer an improved chance of heavier durations

The IUD is a particularly effective system of birth control [38,39]. On an average, one out of hundred girls may get pregnant in the first twelve months of IUD use. Chances are very negligible to get pregnant, but, one can become pregnant only if the IUD got removed from the uterus unnoticed or accidentally. These can put inside the womb immediately after the delivery of a pregnant lady and the probability of getting out from the body is very rare [40-51].

## **CONCLUSION**

An IUD starts working as quickly as it can be put inside, and can remain in the same position for six-nine years without any failure. Copper IUDs has a success rate of more than 99%. It can be inserted at any time. It is an amazing procedure of birth control. Failure charges with the copper IUD is about 0.8% while the levonorgestrel IUD has a failure expense of 0.2% in the first year of use. In 2007, IUDs have been essentially the most commonly used type of reversible contraception, with greater than one hundred eighty million customers global.

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