

Exploring Intrauterine Devices (IUDs): Types, Benefits, and Considerations

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DESCRIPTION

Intrauterine Devices (IUDs) are highly effective, long-acting reversible contraceptive methods that offer women reliable protection against unintended pregnancy. With various types available, each with its unique features, benefits, and considerations, IUDs have become increasingly popular among individuals seeking safe and convenient birth control options. This article provides a comprehensive exploration of IUDs, including their types, benefits, and important considerations for individuals considering this form of contraception [1].

Hormonal IUDs

Levonorgestrel-releasing IUDs: These IUDs continuously release small amounts of the progestin hormone levonorgestrel into the uterus, thickening cervical mucus, inhibiting sperm motility, and thinning the uterine lining to prevent fertilization. Examples include Mirena, Kyleena, Liletta, and Skyla.

Progestin-releasing IUDs: These IUDs are similar to levonorgestrel-releasing IUDs but may contain different types of progestins [2]. They offer highly effective contraception with the added benefit of lighter periods and reduced menstrual cramps.

Non-Hormonal IUDs:

Copper IUDs: Also known as copper-bearing IUDs, these devices are hormone-free and release copper ions into the uterine cavity, creating an inhospitable environment for sperm, preventing fertilization, and altering the uterine lining to prevent implantation. Examples include ParaGard and Mona Lisa N.

Benefits of Intrauterine Devices (IUDs)

Highly effective contraception: IUDs are among the most effective forms of contraception, with failure rates of less than 1% [3].

Long-Acting Reversible Contraception (LARC): Once inserted, IUDs provide continuous protection against pregnancy for several years, depending on the type.

Convenient and low-maintenance: Unlike daily birth control pills or other contraceptive methods that require regular administration or use, IUDs require minimal maintenance and offer hassle-free contraception.

Rapid return to fertility: Fertility returns quickly upon removal of the IUD, making it an ideal choice for individuals who plan to conceive in the future.

Reduced menstrual bleeding: Hormonal IUDs, in particular, are associated with lighter periods and reduced menstrual cramps, offering added benefits beyond contraception.

Cost-Effective: While the upfront cost of an IUD insertion may be higher than other contraceptive methods, the long-term cost-effectiveness of IUDs makes them a cost-saving option over time [4-6].

Considerations for Intrauterine Device (IUD)

Insertion procedure: IUD insertion is a quick and relatively simple procedure performed by a healthcare provider in a clinical setting. Some individuals may experience discomfort or cramping during insertion, which can be managed with pain relievers or local anesthesia [7].

Side effects: Common side effects associated with IUD use include irregular bleeding, spotting, cramping, and changes in menstrual patterns. Hormonal IUDs may also cause hormonal side effects such as breast tenderness, mood changes, or acne, although these typically diminish over time.

Compatibility: Certain medical conditions or anatomical factors may affect the suitability of IUD use. Individuals with a history of Pelvic Inflammatory Disease (PID), uterine abnormalities, or certain cancers may not be candidates for IUD insertion [8].

Infection risk: While rare, there is a small risk of infection associated with IUD insertion, particularly in the first few weeks following insertion. Prompt evaluation of symptoms such as pelvic pain, fever, or abnormal vaginal discharge is important to rule out infection.

Expulsion and displacement: In rare cases, the IUD may become partially or completely expelled from the uterus or may shift

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position, potentially reducing its effectiveness in preventing pregnancy. Regular self-checks for the presence of the IUD strings and follow-up appointments with a healthcare provider can help detect any issues early.

Pregnancy risk: While IUDs are highly effective at preventing pregnancy, there is still a small risk of ectopic pregnancy (pregnancy outside the uterus) with IUD use. Individuals experiencing symptoms such as severe abdominal pain or abnormal bleeding should seek medical evaluation to rule out pregnancy or complications [9,10].

Removal procedure: IUD removal is a simple outpatient procedure performed by a healthcare provider. Fertility typically returns immediately upon removal, allowing individuals to conceive if desired.

Personal preferences: Factors such as desired contraceptive duration, menstrual preferences, hormonal tolerance, and future fertility plans should be considered when choosing the most suitable type of IUD.

CONCLUSION

Intrauterine Devices (IUDs) offer women a highly effective, convenient, and reversible contraceptive option with several benefits over other methods. With hormonal and non-hormonal options available, individuals can choose the IUD that best aligns with their preferences, lifestyle, and medical needs. While IUDs are generally safe and well-tolerated, careful consideration of the insertion procedure, potential side effects, and individual suitability is important. By understanding the types, benefits, and considerations associated with IUD use, individuals can make informed decisions about their contraceptive options and take proactive steps to protect their reproductive health.

REFERENCES

1. Simpson JL, Elias S, Malinak LR, Buttram Jr VC. Heritable aspects of endometriosis: I. Genetic studies. *Am J Obstet Gynecol.* 1980; 137(3):327-331.
2. Halme J, Becker S, Wing R. Accentuated cyclic activation of peritoneal macrophages in patients with endometriosis. *Am J Obstet Gynecol.* 1984; 148(1):85-90.
3. Jänne O, Kauppila A, Kokko E, Lantto T, Rönnerberg L, Vihko R. Estrogen and progesterone receptors in endometriosis lesions: comparison with endometrial tissue. *Am J Obstet Gynecol.* 1981; 141(6): 562-566.
4. Wu Y, Halverson G, Basir Z, Strawn E, Yan P, Guo SW. Aberrant methylation at HOXA10 may be responsible for its aberrant expression in the endometrium of patients with endometriosis. *Am J Obstet Gynecol.* 2005; 193(2):371-380.
5. Du H, Taylor HS. Contribution of bone marrow-derived stem cells to endometrium and endometriosis. *Stem cells.* 2007; 25(8): 2082-2086.
6. Guo SW, Wu Y, Strawn E, Basir Z, Wang Y, Halverson G, et al. Genomic alterations in the endometrium may be a proximate cause for endometriosis. *Eur J Obstet Gynecol Reprod Biol.* 2004;116(1): 89-99.
7. Anglesio MS, Papadopoulos N, Ayhan A, Nazeran TM, Noë M, Horlings HM, et al. Cancer-associated mutations in endometriosis without cancer. *N Engl J Med.* 2017; 376(19):1835-1848.
8. Quinn MJ. Endometriosis: the consequence of uterine denervation-reinnervation. *Arch Gynecol Obstet.* 2011 284:1423-1429.
9. Bendifallah S, Suisse S, Puchar A, Delbos L, Poilblanc M, Descamps P, et al. Salivary MicroRNA signature for diagnosis of endometriosis. *J Clin Med.* 2022; 11(3):612.
10. Bae SJ, Jo Y, Cho MK, Jin JS, Kim JY, Shim J, et al. Identification and analysis of novel endometriosis biomarkers via integrative bioinformatics. *Front Endocrinol (Lausanne).* 2022; 13:942368.