

Intra Uterine Catheter

Description

An **Intra Uterine Catheter (IUC)** is a medical device used for a variety of procedures related to the uterus. It's primarily used in **gynaecology** for the administration of treatments, such as medication, fluids, or diagnostic fluids, directly into the uterine cavity. It is also used during assisted reproductive technologies (ART), such as **Intrauterine Insemination (IUI)** or **embryo transfer** in IVF. The catheter is designed to be flexible, sterile, and smooth to minimize discomfort and risk of injury.

Specifications

- **Material:** Medical-grade silicone, PVC (Polyvinyl chloride), or polyethylene
- **Size:** Typically ranging from 5 Fr to 8 Fr (French gauge measurement)
- **Length:** Varies from 20 cm to 50 cm
- **Flexibility:** Flexible shaft to navigate the cervix easily
- **Sterility:** Usually pre-sterilized and single-use for medical procedures
- **Packaging:** Comes in sterile packaging, ready for immediate use

Sizes

- **Small (5 Fr – 6 Fr):** Suitable for women with smaller uterine cavities or those requiring gentler insertion.
- **Medium (7 Fr):** Standard size for most procedures and patients.
- **Large (8 Fr):** Used for cases that require a larger diameter for fluid or medication delivery.

Shapes

- **Straight Catheters:** Most common, used for diagnostic purposes or fluid delivery.
- **Curved Catheters:** Used when a more precise approach is needed, like in intrauterine insemination (IUI) or embryo transfer.
- **Flexible Catheters:** Designed to be more adaptable to the cervix and uterus shape.

Types

- **Single Lumen Catheters:** One channel for the delivery of fluids or medications.
- **Multi-Lumen Catheters:** Multiple channels used for simultaneous fluid delivery, irrigation, or sampling.
- **Embryo Transfer Catheters:** Designed specifically for the gentle transfer of embryos during IVF treatments.

Material

- **Medical-Grade Silicone or PVC:** Preferred for their flexibility, non-toxicity, and ease of sterilization.
- **Polyethylene:** Also used for catheters that are slightly more rigid but effective for certain procedures.

Category

- **Gynaecological Tools**
- **Assisted Reproductive Technologies (ART) Equipment**
- **Medical Devices for Uterine Procedures**

Product Form

- **Physical Device (Flexible, Sterile Catheter)**
- **Single-Use (Typically)**
- **Pre-Sterilized Packaging**

Usage

- **Intrauterine Insemination (IUI):** Used for the direct placement of sperm into the uterus.
- **Embryo Transfer:** For transferring embryos into the uterus during IVF procedures.
- **Diagnostic Procedures:** Used to administer fluids or dyes for diagnostic purposes, like hysterosalpingography (HSG) or son hystero-graphy.
- **Medication Delivery:** For direct drug delivery to the uterine cavity, like for uterine infection treatment or hormonal treatments.

✔ Advantages

- **Minimizes Discomfort:** Soft, flexible, and smooth design reduces irritation.
- **Precision Delivery:** Ensures that fluids, medication, or sperm are delivered accurately to the uterine cavity.
- **Versatility:** Can be used for diagnostic purposes or reproductive procedures like IUI and IVF.
- **Easy Insertion:** Designed to navigate through the cervix without causing harm or discomfort to the patient.

✘ Disadvantages

- **Risk of Infection:** If not properly sterilized, it can lead to infections.
- **Patient Discomfort:** Some patients may feel discomfort or mild cramping during the procedure.
- **Single-Use:** The need for disposal after a single use increases medical waste.

⚠ Precautions

- **Sterilization:** Ensure that the catheter is pre-sterilized and properly stored until use.
- **Proper Handling:** Handle with care to prevent contamination and injury.
- **Insertion:** Only trained healthcare professionals should perform the insertion to avoid injury.
- **Avoiding Overuse:** For non-sterile versions, ensure proper sterilization between uses to prevent infection.

📄 HS/HSN Code

- **HS Code:** 9018 (For medical devices such as catheters)
- **HSN Code:** 9018.39.00 (For intrauterine catheters)

👐 Handling

- **Sterile Handling:** Always ensure sterile gloves and instruments are used during insertion.
- **Storage:** Keep in a sterile, dry, and clean environment until ready to use.
- **Disposal:** After single use, dispose of the catheter according to medical waste disposal guidelines.

Sterilization Details

- **Pre-Sterilized:** Most IUCs come pre-sterilized in sterile packaging, ready for immediate use.
- **Reusable Options:** If reusable, they should be autoclaved or sterilized using chemical sterilant to ensure safety and hygiene.

Veterinary Application

- **Animal Reproductive Care:** Used in veterinary practice, particularly in **equine (horse)** or **cattle breeding** for insemination or embryo transfer.
- **Uterine Health Monitoring:** In some animals, these catheters are used for diagnostic purposes or the administration of treatments like antibiotics for uterine infections.

Human Application

- **Intrauterine Insemination (IUI):** Direct placement of sperm into the uterus for fertility treatments.
- **Embryo Transfer (IVF):** Used for the gentle transfer of embryos into the uterus during IVF procedures.
- **Diagnostic Use:** To introduce contrast agents or fluids for diagnostic tests like hysterosalpingography (HSG).
- **Medication Administration:** Delivery of hormones, fluids, or other necessary medications directly to the uterine cavity.

FAQs

Q1: Can an intrauterine catheter be used for any medical procedure?

A: Yes, it can be used for various purposes such as IUI, IVF embryo transfers, diagnostic procedures, and medication delivery.

Q2: Is an intrauterine catheter painful to use?

A: While the insertion may cause mild discomfort or cramping, it is generally well-tolerated with proper technique.

Q3: How do I sterilize a reusable intrauterine catheter?

A: It can be sterilized using autoclaving or chemical sterilization methods before every use.

Q4: Is an intrauterine catheter safe?

A: Yes, as long as proper sterilization procedures are followed, and it is used by trained professionals, it is safe and effective.

Q5: Can it be used in animals?

A: Yes, intrauterine catheters are used in veterinary practice, especially for breeding purposes or uterine health diagnostics.