

Embryotomy Knife

Description:

An **Embryotomy Knife** is a surgical instrument specifically designed for performing **embryotomy** procedures, commonly used during labour or in veterinary surgeries. **Embryotomy** refers to the procedure of cutting the fetus in cases of **dystocia** (difficult labour) when the fetus cannot be delivered naturally. This tool is crucial in **obstetrics** to help facilitate the safe delivery of the baby, particularly when the fetus is too large, or abnormal, for a natural vaginal delivery.

Specifications:

- **Material:** Medical-grade stainless steel
- **Finish:** High-polish or satin finish for rust resistance
- **Handle Type:** Ergonomic design for a secure and comfortable grip
- **Blade Type:** Curved, sharp blade for controlled cutting
- **Size:** Available in various lengths and blade sizes

Sizes:

- **6" (Medium):** Most commonly used size for general obstetric procedures.
- **7" (Large):** Suitable for larger animals or more complex cases.
- **8" (Extra Large):** For difficult cases requiring more reach.

Shapes:

- **Curved Blade:** Designed to follow the natural contours of the fetus or surrounding tissue for easier dissection and removal.
- **Straight Blade:** Used in some cases for a more direct incision.

Types:

1. **Single Blade Embryotomy Knife:** Standard knife with one curved or straight blade.
2. **Double Blade Embryotomy Knife:** Features two blades to allow for more flexibility during surgery.

Material:

- **Stainless Steel:** Durable, resistant to corrosion, and ensures the knife maintains its sharpness.
- **Titanium Coating:** Provides additional durability and corrosion resistance.

Category:

- **Obstetric Surgical Instruments**
- **Veterinary Instruments**
- **Surgical Cutting Tools**

Product Form:

- Surgical Knife (Manual)

Usage:

- **Human Applications:** Primarily used in obstetrics during difficult labour to perform embryotomy, especially in cases where a Caesarean section is not possible.
- **Veterinary Applications:** Commonly used in large animal veterinary surgeries, especially in cases of dystocia in livestock.

Advantages:

- **Precision Cutting:** The blade's sharpness ensures a clean, controlled incision to minimize damage.
- **Ergonomic Handle:** Provides comfort during prolonged surgeries.
- **Multiple Sizes:** Offers different sizes to cater to different surgical requirements.
- **Sterilizable:** Easily sterilized for repeated use.

Disadvantages:

- **Requires Skill:** A high degree of skill is needed to use this knife effectively, especially to avoid unnecessary injury to the mother or fetus.
- **Limited Use:** Used specifically for **embryotomy** and not applicable in other general surgeries.
- **Cost:** Depending on the material and brand, it can be a more expensive tool.

Precautions:

- Always ensure the knife is sterile before use.
- Handle with care to avoid accidental cuts during the procedure.
- Inspect for any dullness or corrosion before each use.
- Regularly check for any structural issues with the handle or blade.

HS / HSN Code:

- **HS Code:** 9018.90.30 (Surgical Instruments)
- **HSN Code:** 9018.90 (Surgical instruments for obstetrics and gynaecology)

Handling Instructions:

- Clean thoroughly after each use with medical-grade disinfectants.
- Ensure the knife is sterilized after every use.
- Store in a dry, clean, and safe location to avoid corrosion.

Sterilization Details:

- Can be sterilized using autoclave (steam sterilization) or chemical sterilization.
- Autoclave settings: **121°C to 134°C** for 15-20 minutes.
- Ensure that the knife is completely dry before storing.

Human Applications:

- **Obstetric Surgeries:** Used during difficult deliveries, particularly in cases of fetal death or mispositioning, where embryotomy becomes necessary.

Veterinary Applications:

- **Large Animal Surgeries:** Frequently used in livestock (e.g., cows, horses) when there is a case of **dystocia** that cannot be resolved through normal birth methods.

? Frequently Asked Questions (FAQs)

1. **What is an Embryotomy Knife used for?**

ANS: An **Embryotomy Knife** is used to perform **embryotomy** during difficult deliveries (**dystocia**) in both humans and animals. It helps to cut the fetus when it cannot be delivered naturally.

2. **Can an Embryotomy Knife be used in all types of deliveries?**

ANS: No, the **Embryotomy Knife** is specifically for **difficult deliveries (dystocia)**. It's not used in normal, uncomplicated births.

3. **How do I sterilize the Embryotomy Knife?**

ANS: The **Embryotomy Knife** can be sterilized using **autoclaving** at **121°C to 134°C** for 15-20 minutes, or through chemical sterilization methods.

4. **What sizes are available for the Embryotomy Knife?**

ANS: Embryotomy knives typically come in **6" (medium)**, **7" (large)**, and **8" (extra large)** sizes, depending on the complexity of the procedure.

5. **Is the Embryotomy Knife used in veterinary medicine?**

ANS: Yes, it is frequently used in **veterinary procedures**, particularly during **dystocia** in large animals such as **cows** or **horses**.

