



- **There are three main types of IUCDs:**
  - **Metal:** containing copper or zinc.
  - **Those which contain progesterone.**
  - **Inert:** they don't contain any type of metals or progesterone.  
Notice that inert IUCDs are not used nowadays because in 1960s they caused mortality in 20% of cases in US by causing septicemia.
- **IUCDs are mechanical devices which were invented by Arabs who used to place stones in the uterus of female camels to prevent them from conceiving when they travel.**
- **IUCDs prevent pregnancy by preventing implantation of the fertilized egg (how?)**
  - **By releasing progesterone** which makes the cervical mucus thick and the endometrium will not be prepared to receive the fertilized egg.
  - **They cause aseptic inflammatory reaction** in which white blood cells will attack the sperms → preventing fertilization.
  - **Local release of prostaglandins** will increase resulting in increased contractility of the uterus.
  - **Copper/zinc will cause a toxic effect** on sperms and cervical mucus in addition to changes in DNA/RNA of the endometrium.
- **How to diagnose pregnancy?**
  - **β-hCG detection.**
  - **Conformation by ultrasound (vaginal probe ultrasound is preferred).** If a well-defined gestational sac is detected with fetal heart and there is an IUCD inside the uterus → you must counsel the patient:
    - ✓ Telling her that there is 50% risk that she loses her pregnancy (this miscarriage in worst scenarios might result in septicemia).
    - ✓ If the mother doesn't want to remove the IUCD → cut the thread of IUCD as high as possible. Usually the IUCD will come out with the membranes or embedded in placenta during delivery.
    - ✓ If the IUCD doesn't come out → you must suspect that it might be embedded in the uterine wall:
      - ❖ A metal-containing IUCD will be removed from the omentum by mini-laparotomy.
      - ❖ A non-metal IUCD will be removed by (??)