GUIDELINES
FOR
IUD INSERTION
FOR
MEDICAL OFFICERS

Issued by
Technical Operations Division
Ministry of Health & Family Welfare
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Nirman Bhavan, New Delhi-11.

PREFACE

This booklet on 'Guidelines for IUD insertion for the Medical Officers' will serve as a basic document for the trainers as well as reference material for trainees.

It has been well illustrated. It includes guidelines for sterilisation of equipment, follow up, treatment of complications etc.

I hope this booklet will be of use to the trainers as well as the trainees.

Sd./-
USHA VOHRA
Secretary(FW)

New Delhi-110011
Dated: 31st March, 1994

ACKNOWLEDGEMENT

The 'Guidelines for IUD insertion' have been framed to assist in training the medical officers, female health assistants and health workers in IUD insertion and in their day to day work.

I thank the gynaecologists and obstetricians who have participated and helped in the formulation of these guidelines.

My thanks are also due to Dr. K.N. Srivastava, Dr. V.K. Behal and Dr. S. Sarkar, Assistant Commissioners of this Ministry and to Shri B.L. Manocha, my Private Secretary, who have rendered all help and assistance in formulating these guidelines.

I am also thankful to Prof. S.K. Guha, Director and Dr. G.L. Jain, Principal Scientific Officer of the Bio-Medical Engineering Unit, IIT and Shri Rajiv Gupta of Computer Section of IIT for assistance in this regard.

Sd./-

Dr.(Mrs.) K. Kehar

Deputy Commissioner (TO)

New Delhi-110011

Dated:

1. OBJECTIVE

The objective of this module is to enable you to have necessary knowledge and technical skills in IUD (Cu T 200 B) insertion.

2. INTRODUCTION - WHAT IS COPPER T

Copper T 200 B is a "T" shaped plastic device made of polyethylene and impregnated with Barium Sulphate to make it visible in an X Ray. It is 3.6 cm in length and 3.2 cm in width. Copper is wound round its vertical stem. The surface area of copper wire is 200 Sq. Mm and a nylon thread is attached to the lower end of the vertical stem. Figure 1 shows Cu T 200 B with insertion tube, flange and plunger.

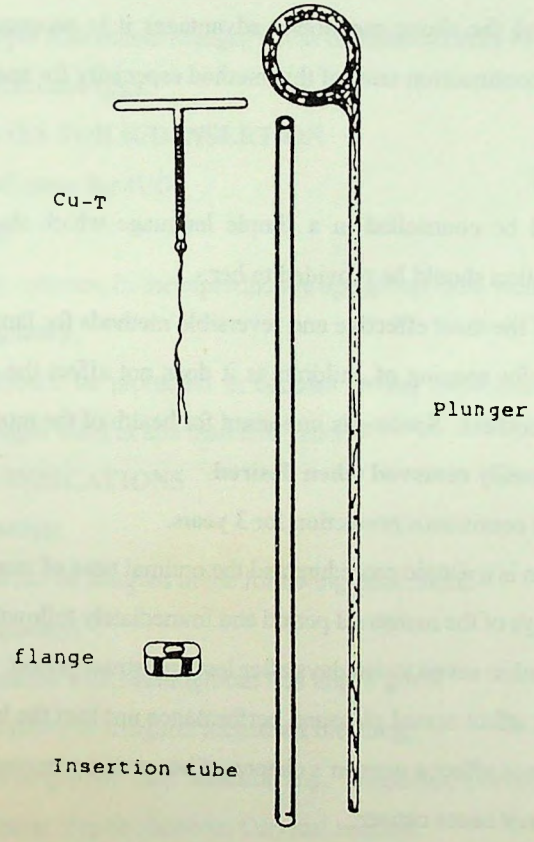

Fig. 1. Copper T 200 B with insertion tube, Flange and plunger.

It is a safe and reliable method of contraception and it offers several advantages, namely -

i) One time insertion procedure

ii) It is readily reversible

iii) It is coitus independent

iv) Effective for 3 years

v) It is cost effective

Despite all this, it is disappointing to note that the continuation rate of less than 30% at the end of one year has not improved over the years. This may be due to improper selection of cases who may develop side effects and demand its removal. It may also be due to poor counselling and motivation by the medical and paramedical staff.

In view of this and the above mentioned advantages it is necessary to increase the acceptability and continuation rates of this method especially for spacing of children.

3. COUNSELLING

The client should be counselled in a simple language which she understands and following information should be provided to her:-

i) It is one of the most effective and reversible methods for family planning.

ii) It is ideal for spacing of children as it does not affect the quality of milk in lactating mothers. Spacing is important for health of the mother and children.

iii) **It can be easily removed when desired.**

iv) It provides continuous protection for 3 years.

v) Its insertion is a simple procedure and the optimal time of insertion is during the last two days of the menstrual period and immediately following MTP but can be inserted within seven to ten days after last menstrual period.

vi) It does not affect sexual pleasure, performance nor hurt the husband.

vii) IUD does not affect a women's chance of becoming pregnant after its removal.

viii) IUD does not cause cancer.

ix) It has 1-3% chance of failure.

SPACING OF CHILDREN ENSURES HEALTH OF THE MOTHER, ENABLES HER TO CARE AND BREAST FEED HER CHILD AND PREVENTS LOW BIRTH WEIGHT OF THE NEXT INFANT

4. MECHANISM OF ACTION

Cu T 200 B exerts multiple anti-fertility effects on the reproductive tract -

i) It inhibits sperm migration in the upper genital tract.

ii) It stimulates foreign body reaction in the endometrium and releases macrophages which prevent implantation.

iii) Copper also causes changes in the endometrial cells which prevents implantation of fertilized eggs.

5. GUIDELINES FOR IUD INSERTION

5.1 Selection of cases for IUD

Indications

i) Any women, in the reproductive age group, who would want to space or avoid pregnancy;

ii) It should be promoted in couples having two children when the age of the younger child is less than five years.

5.1.1 CONTRA INDICATIONS

a) Absolute

IUD should not be inserted in the following conditions:-

i) Pregnancy;

ii) Anaemia with haemoglobin less than 8 gm%

iii) Excessive or irregular menstrual bleeding;

iv) Active genital tract infection e.g. Vaginitis, Cervicitis, Pelvic inflammatory diseases, Septic abortion, Cervical erosion.

v) Enlarged uterus;

vi) Previous history of ectopic pregnancy;

b) **Relative**

i) Previous history of caesarean section;

ii) Medical disorders like heart disease, diabetes, etc. In both these conditions refer to specialists.

5.2 **Timing of insertion**

i) The safest and optimum time for insertion is the last two days of the menstruation but can be inserted within 7-10 days of the LMP.

ii) Immediately after MTP is performed.

iii) After the first period following spontaneous abortion.

iv) In lactating mothers after excluding pregnancy.

5.3 **Venue of insertion**

IUD should be inserted only at the sub-centre, primary health centre, community health centre or hospital.

IUD MUST NOT BE INSERTED AT RESIDENCE OF THE WOMAN

5.4 **Equipment and Supplies required for IUD insertion.**

Copper T insertion kit containing the following instruments

i) Copper T with inserter and plunger in a presterilised packet.

ii) Sim's/Cusco's speculum

iii) Anterior vaginal wall retractor

iv) Allis forceps/volsellum (small toothed)

v) Sponge holding forceps

vi) Uterine Sound

vii) Scissors

viii) Toothed forceps

ix) Cheatle's Forceps in jar containing an antiseptic solution.

x) Gloves

xi) Sterilised cotton swabs and swab stick in a jar with lid.

xii) Kidney tray for keeping used instruments

xiii) Bowl for antiseptic solution

xiv) Antiseptic solution (any one of the following):-

a) Savlon 1%

b) Cetavlon 2%

5.5 **Sterilisation of instruments**

- Cu T is available in a pre-sterilised pack.
- Instruments and gloves.

The Medical Officer must instruct the LHV/ANM to ensure that all instruments/gloves are preferably autoclaved. In case autoclaving is not possible she must see that the instruments are fully immersed in water and boil for at least 20 minutes.

IN ORDER TO PREVENT ANY INFECTION IT IS ESSENTIAL, THAT INSTRUMENTS ARE AUTOCLAVED OR SHOULD BE FULLY IMMERSED IN WATER AND BOIL FOR ATLEAST 20 MINUTES AFTER THE WATER STARTS BOILING

6. EXAMINATION OF CLIENT

6.1 History taking

History should be taken very carefully and should include age of the client, medical, surgical and gynaecological history. Last menstrual period must invariably be noted.

6.2 Menstrual and obstetric history need to be carefully taken.

- Periods - regular or irregular, flow excessive or normal.
- Date of last menstrual period.
- No. of deliveries and abortions, MTP/ previous history of caesarian section/ectopic pregnancy.
- Recent history of Post Partum/Post Abortal infections.

6.3 **General Examination**

Particular attention has to be paid to detect whether the client has severe anaemia, diabetes or heart disease.

6.4 **Preparation of client**

i) Ask the woman to empty her bladder and lie down on the table on her back with knees flexed.

ii) Protect her privacy.

iii) Wash and scrub your hands. Wear sterile gloves taking care that the outer side of gloves does not get contaminated.

iv) Clean the vulva with antiseptic solution.

v) Conduct bimanual examination as follows:-

a) Introduce two fingers of the gloved hand into the vagina and feel for the cervix. Place one finger on either side of the cervix. Move the cervix from side to side with the two fingers. If this produces pain, do not insert the IUD.

b) Put both the examining fingers in front of the cervix and gently bring them towards the public bone. Meanwhile the other hand is placed over the lower abdomen above the public hone. Gently try to bring together the finger tips of both the hands. If the uterus is anteverted i.e. lies to the front, the entire uterus will be felt with both the hands as show in figure 2.

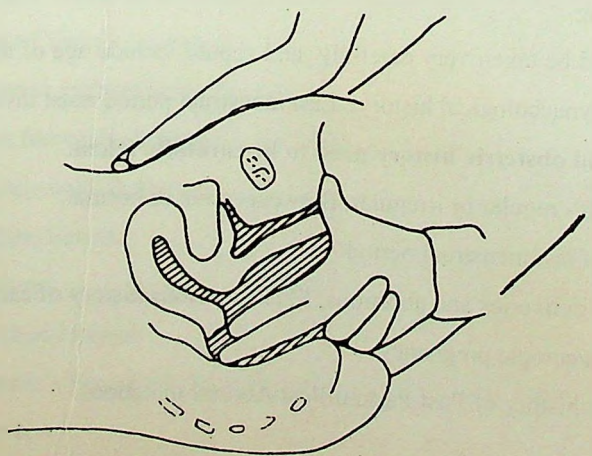

Fig. 2 Anteverted uterus

c) Now put the fingers behind the cervix and repeat the procedure as shown in figure 3. If the uterus is retroverted, that is, lies to the back only the cervix will be felt between both the hands.

In case the uterus is enlarged or irregular in shape, there may be pregnancy or tumor; do not insert an IUD and refer the client to specialist for advice. If the uterus is normal in size change the gloves and proceed for inserting IUD.

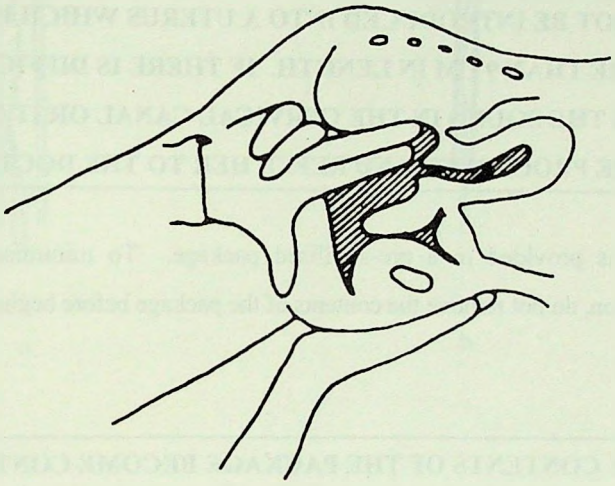

Fig. 3 Retroverted uterus

vi) A speculum should be inserted sideways gently into the vagina to inspect the cervix. In case of difficulty in inspecting the cervix, use anterious vaginal wall retractor. Clean the cervix with antiseptic solution and then grasp the anterior lip of the cervix with a Volsellum/Allis forceps, while telling her that she feel slight discomfort.

vii) Gentle traction of the cervix with the Volsellum/Allis forceps should be maintained continuously downward and backward to correct the position of the uterus. This will help in introduction of the uterine sound and Cu T.

viii) Introduce the uterine sound into the uterus gently till a slight resistance is felt which indicates that the tip of the uterine sound has reached fundus. During the process gentle traction of the cervix with the volsellum/Allis forceps should be maintained. Care should be taken to introduce the sound according to the position of the uterus and direction of the uterine cavity as detected during the bimanual pelvic examination.

ix) The length of the uterus is determined and varies between 6 to 9 cm.

IUD SHOULD NOT BE INTRODUCED INTO A UTERUS WHICH IS LESS THAN 6 CM AND MORE THAN 9 CM IN LENGTH. IF THERE IS DIFFICULTY IN INTRODUCING THE SOUND IN THE CERVICAL CANAL OR IT CAUSES PAIN, STOP THE PROCEDURE AND REFER HER TO THE DOCTOR

Copper T is provided in a pre-sterilised package. To minimise the chances of contamination, do not remove the contents of the package before beginning the insertion procedure.

IF ANY OF THE CONTENTS OF THE PACKAGE BECOME CONTAMINATED PRIOR TO INSERTION, DISCARD THE PACKAGE AND COPPER T

7. TECHNIQUE OF INSERTION

i) The package should be opened approximately halfway holding the open end up towards ceiling, by the helper, so that the contents do not fall out.

ii) Take sterile inserted with Cu T out of the packet. Be careful not to touch the outside of the packet after wearing the gloves.

iii) Grasp the tips of the transverse arms lying out of the insertion tube with the thumb and index fingers. Bend the tips downwards and push them easily into the insertion tube, beside the vertical arm. Take care that the tips of the transverse arms are not more than 6 mm within the tube as shown in figure 4.

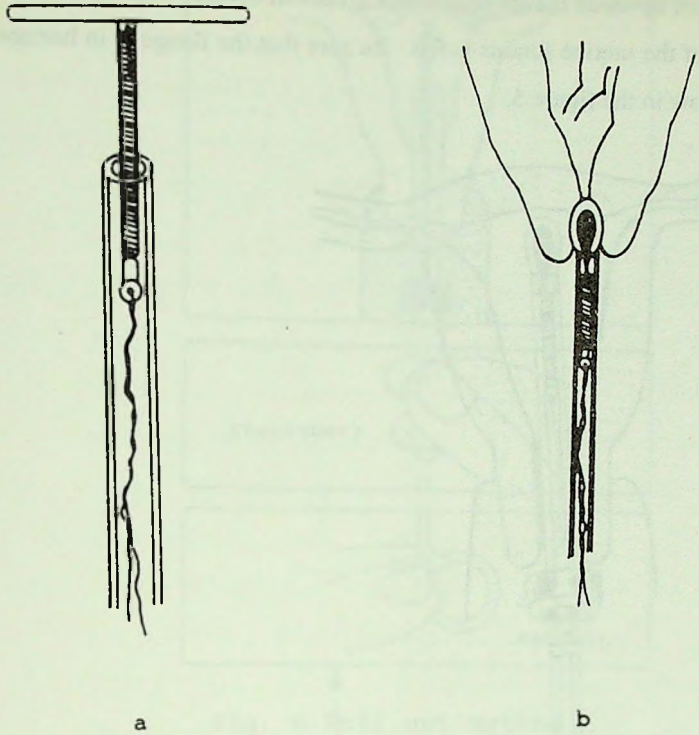

Fig.4 (a: CuT 200 B in the Inserter, b: Pressing tips of the horizontal arms into the inserter)

iv) Take out the plunger from the packet and introduce it from the free end of the inserter tube (opposite Cu T) until it just touches the lower most portion of the vertical arm of the 'T'.

v) Adjust the movable blue flange on the inserter tube according to the length of the uterus so that the Cu T within the tube will just reach the upper end of the uterine cavity.

vi) For inserting the IUD grasp the Allis forceps/Volsellum and pull firmly downwards and backwards to bring the uterine cavity in line with the cervical canal.

vii) The loaded inserted with the plunger is than gently introduced through the cervical canal upwards till the blue flange comes in contact with the cervix and resistance of the uterine fundus is felt. Be sure that the flange is in horizontal plane as show in the figure 5.

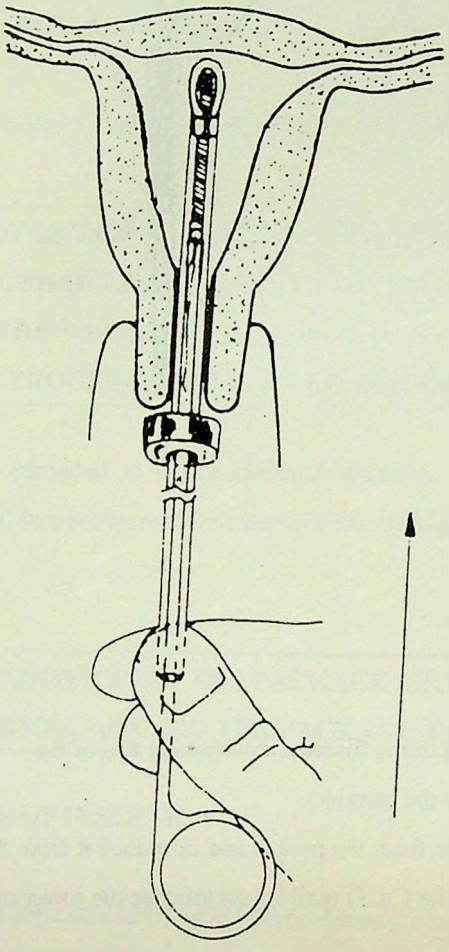

Fig. 5 Introducing the inserter into the uterus

viii) When the loaded inserter reaches the upper end of the uterine cavity hold the plunger in a fixed position and withdraw the inserter tube downwards till it touches the base of the plunger. This will release the arms of the Cu T in the uterine cavity at the fundus. This is the pull out method to minimise perforation as shown in figure 6.

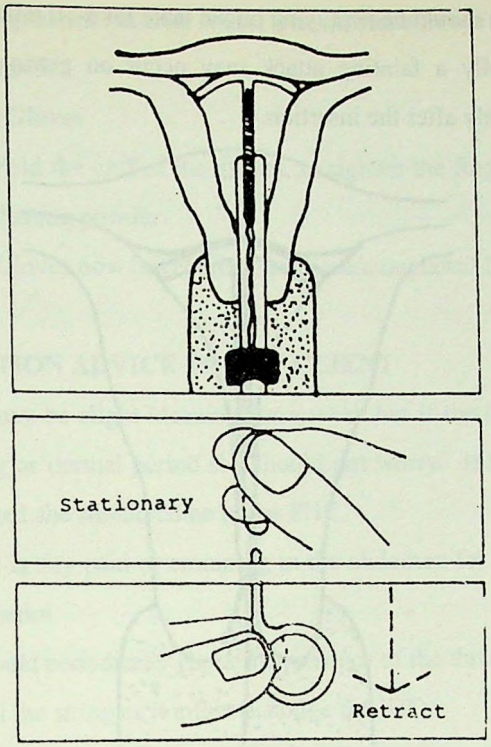

Fig. 6 Pull out method

ix) Hold the inserter tube firmly, while removing the plunger. The plunger should be removed before the inserter tube is pulled out, otherwise the threads may be caught between the tube and plunger resulting in downward displacement of Cu T or expulsion of Cu T from uterine cavity.

x) Gently and slowly pull the inserter tube from the cervical canal. The strings may be cut so that they may protrude only 2-3 cm into the vagina. At the completion of the procedure the CuT remains within the uterine cavity. The horizontal (transverse) arms will have slight downwards curve due.to their flexibility as shown in figure 7.

xi) Remove the Allis forceps/Volsellum and see if there is excessive bleeding from the Allis forceps/Volsellum site. This can be controlled by pressing on the bleeding point with a cotton swab using a clean sponge holding forceps until the bleeding stops. Then remove the speculum.

xii) The client should be kept lying on the table for 5-10 minutes after insertion since occasionally a fainting attack may occur on getting down from the table immediately after the insertion.

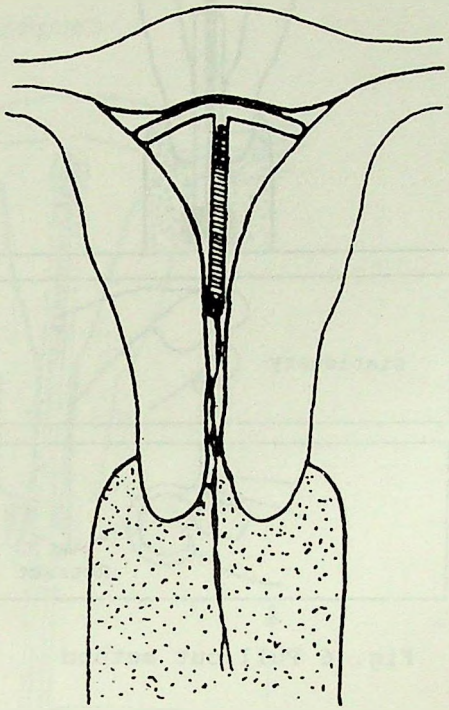

Fig. 7 Cu T in uterus

8. CARE OF INSTRUMENTS AFTER COMPLETING THE INSERTION PROCEDURE

Health assistant (female)/health worker (female) should be instructed to take proper care of the instruments after insertion of IUD as follows:-

i) **Instruments**

- With the gloves on wash all the instruments in water to remove the blood.
- scrub with brush in hot soapy water to clean the joints and screws of the instruments.

- Again rinse in clear water. The instruments are now ready to be sterilized again.

ii) **Rubber Gloves**

- Fold the cuff of the gloves, straighten the fingers, wash, dry and apply dusting powder.
- Gloves now be reboiled/sterilised/autoclaved before being used again.

9. POST INSERTION ADVICE TO THE CLIENT

i) There may be slight bleeding for a week but if the bleeding is not more than spotting or normal period she should not worry. If the bleeding is profuse or prolonged she should come to the PHC.

ii) If there is any pain or cramping in the abdomen for the first few days, advice paracetamol.

iii) She should periodically check the presence of the thread by feeling it but should not pull the string as it might dislodge the IUD.

iv) If the device is expelled, or thread cannot be felt or she misses her period, she must report immediately to the PHC.

v) There may be spotting or increased bleeding during menstrual period for the first 3-4 months or so but they tend to become normal thereafter.

vi) In case of any problem she must report to the Medical Officer/ANM.

10. FOLLOW UP SCHEDULE

The under-mentioned follow-up schedule is proposed:

- First Visit — Immediately after the first menstrual period
- Second Visit — After one year

The medical officer should instruct the ANM that during her routine field visits she should advice her client to come for follow-up.

11. SIDE EFFECTS AND COMPLICATIONS AFTER IUD INSERTION AND THEIR MANAGEMENT

11.1 Bleeding

The most common and important side-effect of IUD insertion is bleeding per vagina :-

i) Spotting in few cases.

ii) In case of bleeding, do a PV examination to ascertain the cause which may be

a) Infection - Treat the infection,

b) Displacement of Copper T - remove the IUD and call for reinsertion during the next period.

iii) In case no cause is found, reassure the client and prescribe haematinics.

11.2 Pain

i) In case of cramps in lower abdomen / low backache give tablet paracetamol.

ii) In case of severe pain - Remove the IUD immediately.

11.3 Infection

i) In case of vaginal discharge, pain and fever; give a course of antibiotics.

ii) If there is no relief - remove the IUD.

11.4 Perforation

This is rare following Cu T insertion and is likely in the post abortive/postpartum uteri. Cu T should not be inserted if the uterine size measures less than 6 cm. When string are not seen and Cu T not felt on uterine sounding, perforation of uterus and intraperitoneal migration of IUD should be suspected. The client should referred to a specialist at the earliest.

11.5 Pregnancy

It is a rare occurrence. In case the client becomes pregnant with Cu T in situ. she may be offered MTP if so desired. In case she wants to continue pregnancy there is no need to remove copper T.

11.6 Expulsion

This occurs mostly if the Cu T is inserted in the immediate post partum period and soon after spontaneous abortion. Avoid inserting IUD at this time. Expulsion occurs mostly in the first year of use (6%) but the incidence decreases to 2% in the subsequent years.

11.7 Missing IUD String

When the threat can't be felt by the client and cannot be visualised by a doctor, further investigation is necessary and the client should be referred to a specialist.

11.8 Ectopic pregnancy

Ectopic pregnancy is rare and if suspected the client should be referred to the specialist.

12. REMOVAL OF IUD

The general steps are to be followed as at the time of insertion.

12.1 Indication for removal

i) Moderate to severe bleeding if no relief with treatment.
ii) Moderate to severe pain
iii) Foul smelling vaginal discharge
iv) Pelvic infection not responding to treatment
v) The client's desire to have another child
vi) Menopause

12.2 Techniques for removal of IUDs

i) Client is positioned as for the insertion of IUD
ii) Wear sterile gloves;
iii) Clean the vulva and vagina with antiseptic solution (savlon 1%)
iv) Put the sterile speculum into the vagina, locate the thread; grasp the thread close

to the cervix with the sponge holding forceps and pull it out by steady gentle traction.

v) Show the IUD to the client and discard it.

vi) If the thread is not seen, refer the client for specialist's attention.

vii) If the removal requires more than a gentle traction, do not try to remove it but refer her to the specialist.

13. DO'S AND DON'TS ABOUT Cu T INSERTION

13.1 DO's

I) Explain the safety of the Cu T.

ii) Explain the reversibility of Cu T.

iii) Insert the Cu T preferably during the last two days of the menstrual period but can be inserted within 7 - 10 days of L.M.P.

iv) Use aseptic technique when inserting the Cu T.

v) Uterine sound should be used to measure the length of the cavity of the uterus and the blue flange must be adjusted accordingly.

vi) Pull the plunger completely out of the inserter tube before removing the tube from the uterus.

vii) Tell the client what to expect and what to do in case of bleeding, pain or expulsion of the Cu T.

viii) Reassure the client about mild side effects.

ix) Schedule the return visit as per point 10.

x) Attend sympathetically to every complaint.

xi) Maintain complete records.

xii) Remove the Cu T after 3 years of continuous use and reinsert a new one.

13.2 **Don'ts**

i) Do not insert the Cu T if:-

a) there is a suspicion of pregnancy.

b) menstrual periods are excessive or very irregular.

c) there is any sign of pelvic infection.

d) history of septic abortion in the last 3 months.

e) there is suspicion of tumour.

f) the uterus is less than 6 cm and more than 9 cms.

g) Any of the contents of the package become contaminated prior to insertion, discard the package and use a new Copper T.

ii) Do not keep the Cu T in the inserter for more than five minutes before insertion.

iii) Do not push the plunger to insert the Cu T.

iv) Do not remove the plunger and inserter tube together.

v) Counteract false rumours.

vi) Do not insist on retention of IUD if it is unacceptable to the client.