West of Scotland Protocol ***Approved September 2023***

COPPER INTRAUTERINE DEVICE CONTRACEPTION GUIDELINE

What's New

This guideline is in keeping with the FSRH Clinical Guideline: Intrauterine contraception (March 2023)]. https://www.fsrh.org/documents/ceuguidanceintrauterinecontraception/

This guideline does not cover immediate post partum intrauterine contraception (IUC) provision.

Information on the following has been updated

- Efficacy
- Duration of use
- Suitability of IUC in specific populations
- Health risks
- Starting Cu-IUD contraception or switching from another hormonal contraceptive method

CONTENTS

12. Cu-IUD removal

i. **Facilitating Safe Removal**
ii. **Timing of Cu-IUD removal or replacement**
iii. **Unexpected findings at Cu-IUD removal**
iv. **Removal of an unusual device**
v. **Difficult removals**

Table 1: Types of copper intrauterine devices

Table 2: Starting Cu-IUD contraception (no recent hormonal contraception)

Table 3: Switching to a Cu-IUD from a hormonal contraceptive method

Table 4: Possible causes if new onset pelvic pain

Table 5: Cu-IUD removal

Abbreviations

IUC intrauterine contraception

IUD intrauterine device

Cu-IUD copper intrauterine device

LNG-IUD levonorgestrel intrauterine device

UKMEC United Kingdom Medical Eligibility Criteria

Other abbreviations have been defined within the body of the document.

Introduction

The Cu-IUDs are non-hormonal and vary in size and shape (Table 1). They consist of copper and plastic and may contain barium for radio-opacity. Some types contain a core of silver or other inert metal, which helps to maintain the integrity of the wire.

In addition to regular contraception, the Cu-IUD can be used for emergency contraception (EC), if inserted within 5 days after the first episode of unprotected sexual intercourse (UPSI) that cycle, or within 5 days of the earliest expected date of ovulation. (see Emergency Contraception Protocol).

A Cu-IUD is effective immediately following insertion.

The main mode of action of a Cu-IUD is inhibition of fertilisation through the effect of copper on the ovum and sperm, but copper in the cervical mucus also inhibits the passage of sperm into the upper reproductive tract.

The Cu-IUD also causes an inflammatory response within the endometrium, which could impair implantation.

2. *Efficacy, duration of action and choice of device*

- The failure rate of Cu-IUD use is very low.
- Cumulative pregnancy rates for Cu-IUDs with 380mm^2 copper are between 0.1 and 1% after the first year of use.
- Pregnancy rates have been found to be lowest for the T-shaped devices which have a copper surface area of 380 mm^2 with copper bracelets on the arms in addition to the coiled copper wire on the stem.
- Cu-IUDs with longest duration of use should ideally be used as they reduce the risk of infection, perforation and expulsion associated with reinsertion (see Table 1).
- For individual clients width of insertion tube and length of device may also have to be considered (see Table 1).
- The LNG-IUD maybe superior in terms of efficacy, although the failure rate is very low for both Cu-IUD and LNG-IUD.
- The contraceptive effectiveness of Cu-IUD is not affected by use of enzyme-inducing drugs or weight/BMI
- The intrauterine ball is not available in the UK at the time of guideline publication

Cu-IUDs can be used for contraception for 5 or 10 years (device dependent). If a Cu-IUD with a copper surface area ≥300 mm^2 is inserted when the individual is ≥40 years old, the FSRH supports extended use of the device, and the Cu-IUD can be used for contraception until menopause. It can be removed 1 year after the final menstrual period if this occurs after age 50 years.

Table 1: Types of copper intrauterine devices listed in the British National Formulary*
(reproduced from https://www.fsrh.org/documents/ceuguidanceintrauterinecontraception/)

Device	Copper content (mm^2)	Uterine length (cm)	Licensed use duration (years)	Frame size (W x L) (mm)	Loading tube width (mm)
Framed, banded copper arms					
Copper T380 A®	380	6.5–9	10	31.9 x 35.9	4.75
T-Safe® 380A QL	380	6.5–9	10	31.9 x 35.9	4.75
T-Safe® 380 A	380	6.6–9	10	31.9 x 35.9	4.5
TT 380® Slimline	380	≥7	10	31.6 x 36.2	4.75
Flexi-T®+ 380	380	≥6	5	28 x 32	3.5
Mini TT380® Slimline	380	5–7	5	23.2 x 29.5	4.75
Framed, copper in stem only					
Nova-T® 380	380	6.5–9	5	32 x 32	3.6
UT380 Standard®	380	6.5–9	5	32 x 32	3.8
Neo-Safe® T380	380	6.5–9	5	31.9 x 31.8	3.7
Novaplus T 380® Cu	380	6.5–9	5	32 x 32	3.6
Novaplus T 380® Cu 'mini'	380	'Mini' size = 5	5	32 x 28.4	3.6
UT380 Short®	380	≥5	5	32 x 27	3.8
Multiload® Cu375	375	6–9	5	19.5 x 32.5	3.6
Multi-Safe® 375	375	6–9	5	19.5 x 34.8	3.6
Ancora® 375 Cu	375	≥6.5	5	20 x 35	3.8
Load® 375	375	≥7	5	19.5 x 32.5	3.6
Flexi-T® 300	300	6.6–9	5	28 x 32	3.5
Frameless					
GyneFix® 330 **GyneFix® 200**	330 200	Suitable for all uterine sizes	5	2.2 x 30	4.75
Silver IUD					
Novaplus T380® Ag	380	'Normal' size = 6.5–9 'Mini' size = 5	5	32 x 32	3.6

L, length; IUD, intrauterine device; W, width.
*See British National Formulary (BNF) (checked on 14/03/2023).

3. Assessing Suitability

Few medical conditions contraindicate use of IUC (see UKMEC (2016 https://www.fsrh.org/documents/ukmec-2016/)

Investigations are not routinely required prior to insertion.

Most Cu-IUD insertions are straightforward and can be undertaken in primary care /community settings. There will be additional considerations for some individuals, for example, pre-insertion investigations, alterations to current medication dosage/timing, discussion with the individual's usual care provider or a requirement to insert the Cu-IUD in a specialist setting.

The use of the Cu-IUD is contraindicated if there is a known or suspected allergy or hypersensitivity to any of the components of the device.

4. Cu-IUD use in specific patient groups

i. Young People, individuals who have never been pregnant and individuals who have never been sexually active can use a cu-IUD.

ii. Transgender and gender-diverse individuals assigned female at birth (TGD-AFB).
The medical indications and contraindications for Cu-IUD are the same for transgender and gender-diverse individuals assigned female at birth (TGD-AFB) and cis-gender women. The Cu-IUD may appeal to TGD-AFB individuals who wish to avoid hormones. The LNG-IUD may help individuals who wish menstrual suppression. Pelvic cramping and bleeding can exacerbate gender dysphoria so clinicians should give adequate pre-procedure counselling about expected side effects and their duration, to improve tolerability. TGD individuals experience varying levels of dysphoria with their anatomy, and genital examination during IUC procedures may cause additional physical or emotional discomfort. Testosterone is teratogenic so TGD-AFB individuals using testosterone therapy and engaging in sex where there is a risk of pregnancy should use effective contraception. Testosterone treatment is not contraceptive, even if the individual is amenorrhoeic. Testosterone can cause vaginal atrophy and dryness, which may add to the physical discomfort of examination- consider pre-procedure treatment with local vaginal estrogen for 2 weeks prior to IUC insertion

iii. After Pregnancy
Immediate postpartum Cu-IUD (within 48 hours of childbirth) is safe, effective, convenient and associated with high continuation rates. When inserted within 48 hours of childbirth, the insertion technique is different to that of standard Cu-IUD insertion and clinicians need to be appropriately trained in this technique

If >48 hours have passed since childbirth, insertion should be delayed until 28 days after childbirth. The risks of insertion from 48 hours until 28 days after childbirth generally outweigh the benefits (UKMEC3).

Cu-IUD insertion after abortion is convenient and acceptable and has been associated with high continuation rates and reduced likelihood of another abortion within the next 2 years.

After medical abortion, or medical or expectant management of miscarriage, Cu-IUD can be inserted any time after expulsion of the pregnancy, providing there is no clinical suspicion of sepsis and no new risk of pregnancy. In addition when there has been early medical discharge (products passed at home) ensure there is no ongoing pregnancy prior to insertion with low sensitivity pregnancy testing done no sooner than 3 weeks post abortion.

A Cu-IUD can be inserted immediately after surgical abortion or surgical management of miscarriage or ectopic pregnancy, providing there is no clinical suspicion of sepsis.

iv. **After gestational trophoblastic disease (GTD.**

A Cu-IUD should not be inserted after gestational trophoblastic disease (GTD) until human chorionic gonadotropin (hCG) levels are normal.

v. **Peri-menopause:**

The Cu-IUD may be associated with heavier, more painful or prolonged bleeding and so may not be appropriate for individuals with heavy menstrual bleeding or perimenopausal individuals who experience problematic menstrual bleeding patterns.

Examination and endometrial assessment/investigation should be considered prior Cu-IUD insertion for perimenopausal individuals who have heavy and/or erratic bleeding or a recent change in bleeding pattern, taking into account any risk factors for gynaecological disease. Requirement for investigation should follow local guidelines.

vi. Breast Cancer

There are no contraindications to use of a Cu-IUD for an individual with current or previous breast cancer (UKMEC1)

vii. Individuals with raised BMI

Cu-IUD insertion could be more challenging in individuals with raised BMI in terms of assessment of uterine position and gaining access to the uterus. Some practicalities may need to be considered in order to maximise the chances of insertion success (e.g. having a range of speculum sizes and an examination couch with an appropriate weight limit). In addition, availability of a large blood pressure cuff for measuring blood pressure is essential.

viii. Individuals at Risk of Infection

Current pelvic inflammatory disease (PID), postpartum or post-abortion sepsis, known gonorrhoea infection, symptomatic Chlamydia infection, and purulent cervicitis are all contraindications to Cu-IUD insertion (UKMEC4). The risks associated with Cu-IUD insertion in the presence of known asymptomatic chlamydia infection are generally considered to outweigh benefits (UKMEC3). Individuals who have symptoms of possible bacterial STI and/or PID should ideally delay IUC insertion until test results are available, until PID or confirmed STI have been treated, and until symptoms have resolved. Offer a bridging contraceptive method if required.

If an individual is considered to be at increased risk for sexually transmitted infections (STIs) but has none of the aforementioned specific conditions and is not a recent contact of gonorrhoea or Chlamydia, benefits of IUC insertion are generally considered to outweigh risks.

Routine STI screening of asymptomatic individuals requesting Cu-IUD is not necessary; however, a sexual history should be taken prior to Cu-IUD insertion and screening offered, to individuals at risk of sexually transmitted infections. Providing the individual is asymptomatic and the individual is not a current or recent contact of gonorrhoea or Chlamydia, screening can be performed at the time of Cu-IUD insertion and the Cu-IUD can be inserted without awaiting results and without prophylactic antibiotic treatment so long as the user can be contacted and treated promptly, if indicated, when the results are known.

Asymptomatic individuals who are a **current or recent contact of gonorrhoea or Chlamydia** should delay Cu-IUD insertion until infection excluded (based on tests done outwith the window period).

Following a positive chlamydia or gonorrhoea result, an intrauterine method can be inserted if the individual has completed antibiotic treatment (and, if applicable, completed any test of cure requirements and / or additional recommended follow-up or imaging, for example, in the case of complicated pelvic infection such as a tubo-ovarian abscess) and is asymptomatic.

Any treatment for confirmed or suspected chlamydia, gonorrhoea or PID should be in line with British Association for Sexual Health and HIV (BASHH) guidance.

With specific regard to emergency IUD insertion that cannot be delayed:

- An individual with known asymptomatic chlamydia infection who requires an emergency Cu-IUD could consider insertion on the same day that chlamydia treatment is commenced. (UKMEC indicates that asymptomatic untreated gonorrhoea infection would contraindicate Cu-IUD insertion).
- Where results of CT (chlamydia) and GC (gonorrhoea) tests are not yet available, antibiotic prophylaxis for CT and/or GC could be considered for an individual who requires emergency IUD insertion and has no symptoms relevant to CT or GC infection but has a current or recent partner who is known to have CT or GC infection.
- Where results of CT and GC tests are not yet available, antibiotic prophylaxis for chlamydia and/or gonorrhoea could be considered on a case-by-case basis for individuals who require emergency Cu- IUD insertion but have symptoms for which CT or GC infection cannot be excluded as a cause.

In the absence of robust evidence to guide practice and until a formal recommendation is made by UKMEC update, it is suggested that IUC insertion should, where possible, be delayed until known *Mycoplasma genitalium* has been adequately treated and any associated symptoms have resolved.

Other infections (and bacterial vaginosis)
There is no indication to screen for other lower genital tract organisms in asymptomatic individuals considering IUC. If bacterial vaginosis, Trichomonas vaginalis or candida infection is diagnosed or suspected, these should be treated but the Cu-IUD can be inserted without delay.

There is no need to delay Cu-IUD insertion or treat asymptomatic individuals who have been identified as having Group B Streptococcus.

Group A streptococcus (GAS) is a rare but serious infection that can cause life-threatening septicaemia, invasive GAS (e.g. necrotising fasciitis) and streptococcal toxic shock syndrome. Therefore, if GAS is incidentally detected it is important that it is treated urgently. Cu-IUD insertion should be delayed until treatment is complete.

ix. Wilson's disease
This is a rare genetic disorder of copper metabolism, resulting in accumulation of copper in the individual's organs and tissues. It is established practice that use of the Cu-IUD is avoided in those with Wilson's disease because of any potential risk that it could contribute further to the excessive accumulation of copper in the body.

Refer to a senior clinician if

- **Uterine cavity distortion**
- **Previous endometrial ablation**
- **After large loop excision of the transformation zone (LLETZ) procedure**
- **Under follow up for gestational trophoblastic disease**
- **Immunosuppression/ taking immunosuppressants including patients with adrenal insufficiency and / or taking corticosteroids**
- **History of postural orthostatic tachycardia syndrome (PoTS)**
- **Known to have inherited bleeding disorders**
- **Anticoagulants**
- **Cardiac disease**

Contraception choice for individuals with cardiac disease will often require a multidisciplinary approach and discussion with the individual's cardiologist is recommended. See also FSRH Clinical Guideline: Contraceptive Choices for Women with Cardiac Disease (June 2014) https://www.fsrh.org/standards-and-guidance/documents/ceuguidanceintrauterinecontraception

5. Health Risks associated with Cu-IUD use

i. Ovarian cysts
Presence of (or history of) ovarian cysts or polycystic ovary syndrome is not a contraindication to Cu-IUD use.

i. Bone mineral density
As the Cu-IUD has no effect on the hypothalamic-pituitary-ovarian axis, no effect on BMD would be expected

6. Side effects

i. Bleeding

Ensure potential Cu-IUD users are informed about possible bleeding pattern changes, to inform decision-making and improve satisfaction rates.

The Cu-IUD has been associated with an increase in menstrual blood loss and intermenstrual bleeding, secondary to increased release of prostaglandin and other vasoactive agents within the endometrium as part of an inflammatory response.
Bleeding may be heavier, longer or more painful than prior to Cu-IUD insertion and users may experience intermenstrual bleeding.
Increased menstrual bleeding will often decrease over time; however, intermenstrual bleeding is less likely to do so.
As with other LARC methods, increased bleeding is often cited as the most common reason for discontinuation of a Cu-IUD. However, continuation rates for Cu-IUDs are high, suggesting that in spite of this the method is often highly acceptable.

Other Side effects
For most users a Cu-IUD has either no impact or a positive impact on sexual experiences.

7. Cu-IUD insertion

i. Discussion

Discussion and assessment is essential to ensure the method and procedure will be safe for the individual, that they make an informed choice about their contraception options and are able to give informed consent. Discussion may be at the time of the procedure, or at a prior appointment, depending on local service pathways and the urgency of the Cu-IUD insertion. Discussion and assessment may be undertaken face-to-face, via telephone or virtual appointment, or by self-assessment and signposting to patient resources. Women can be encouraged to watch an eight minute information film produced by Lothian Sexual Health available at https://www.lothiansexualhealth.scot/contraception/iud-ius/

ii. When can a Cu-IUD be inserted

A Cu-IUD can be inserted at any time during the menstrual cycle providing that pregnancy can be reasonably excluded (see Box 1). Recommendations for starting or switching to a Cu-IUD can be found in Table 2 and Table 3.

The Cu-IUD can be used for EC if inserted within 5 days of the first episode of UPSI that cycle, or within 5 days of the earliest expected date of ovulation (see emergency contraception protocol)

Box 1: Critieria for reasonably excluding pregnancy

Healthcare practitioners can be ***reasonably certain*** that an individual is ***not currently pregnant*** if any one or more of the following criteria are met ***and*** there are no symptoms or signs of pregnancy:

- They have not had intercourse since the start of their last normal (natural) menstrual period, since childbirth, abortion, miscarriage, ectopic pregnancy or uterine evacuation for gestational trophoblastic disease.
- They have been correctly and consistently using a reliable method of contraception. (For the purposes of being reasonably certain that an individual is not currently pregnant, barrier methods of contraception can be considered reliable providing that they have been used consistently and correctly for every episode of intercourse.)
- They are within the first 5 days of the onset of a normal (natural) menstrual period. They are less than 21 days postpartum (non-breastfeeding individuals).*
- They are fully breastfeeding, amenorrhoeic ***and*** less than 6 months' postpartum.*
- They are within the first 5 days after abortion, miscarriage, ectopic pregnancy or uterine evacuation for gestational trophoblastic disease.
- They have not had intercourse for >21 days ***and*** have a negative high-sensitivity urine pregnancy test (able to detect human chorionic gonadotrophin (hCG) levels around 20 mIU/ml).

*See UKMEC 2016[2] and FSRH Guideline Contraception after Pregnancy[103] for recommendations regarding use of combined hormonal contraception after childbirth.

Table 2: Starting intrauterine contraception (no recent hormonal contraception) [from FSRH Clinical Guideline: Intrauterine contraception (March 2023)]

Current Situation	Timing of insertion of LNG-IUD	Additional Precautions required
No recent hormonal contraception and no recent pregnancy	Any time in a natural menstrual cycle if reasonable certain the individual is not pregnant* or at risk of pregnancy (unless qualifies for pregnancy use as EC)	No
Cu-IUD within licensed duration of use	Any time	Ideally abstain/use condoms for 7 days prior to change in case new device cannot be inserted unless criteria for EC insertion are met
Cu-IUD past licensed duration of use	Any time in a natural menstrual if reasonably certain the individual is not pregnant* or at risk of pregnancy (unless qualifies for use as EC)	No
Post partum (vaginal birth or Caesarian section, breastfeeding or non-breast feeding)	Within 48 hours after childbirth or from 4 weeks after childbirth if it is reasonably certain the individual is not pregnant* or at risk of pregnancy (unless criteria for use as EC apply)	No
Following abortion of miscarriage	Post-surgical abortion or surgical management of miscarriage: ideally insert at the time of the procedure Post-medical abortion or miscarriage: IUC can be inserted any time after expulsion of pregnancy	No
Following use of oral emergency contraception	Within the first 5 days (120 hours) following first UPSI in a natural menstrual cycle or within 5 days after the earliest estimated day of ovulation	No additional precautions required
	If there has been UPSI in this natural menstrual cycle that occurred >5 days ago AND it is >5 days after the earliest estimated date of ovulation (or date of ovulation cannot be estimated), a Cu-IUD cannot be inserted until pregnancy can be excluded by a high-sensitivity pregnancy test taken ≥21 days after last UPSI	Condoms or bridging contraception until Cu-IUD can be inserted

UPSI (unprotected sexual intercourse)
*See Box 1 for how to exclude pregnancy.

Table 3: Switching to intrauterine contraception from a hormonal contraceptive method

Current Situation	Timing of insertion	Additional Precautions required
CHC use	At any time if CHC has been used correctly (or criteria for use as EC are met)	No
POP (traditional)	At any time if CHC has been used correctly (or criteria for use as EC are met)	No
POP (desogestrel)	At any time if CHC has been used correctly (or criteria for use as EC are met)	No
POP – drospirenone	At any time if CHC has been used correctly (or criteria for use as EC are met)	No
ENG implant within 3 years after insertion	Any time	No
ENG implant in situ for 3-4 years	Any time if PT negative	No Repeat PT 21days after last UPSI
ENG implant in situ for >4 years and no UPSI in the last 21 days	Any time if PT negative	No
ENG implant in situ for >4 years and UPSI in the last 21 days	If PT negative AND all UPSI that has taken place in the last 21 days was within the last 5 days, Cu-IUD can be inserted as EC	No
	Cu-IUD cannot be inserted if any UPSI occurred between 5 and 21 days ago	Consider PT and EC. Bridge with alternative contraception until pregnancy can be excluded by a high sensitivity PT taken ≥21 days after last UPSI

Table 3: Switching to intrauterine contraception from a hormonal contraceptive method (contd)

Current Situation	Timing of insertion	Additional Precautions required
Progestogen-only injectable (DMPA) ≤14 weeks post-injection	Any time	No
Progestogen-only injectable (DMPA) >14 weeks post-injection and no UPSI since 14 weeks	Any time	No
Progestogen-only injectable (DMPA) >14 weeks post-injection AND UPSI since 14 weeks post-injection, all of which took place ≥21 days ago	Any time if PT negative	No
Progestogen-only injectable (DMPA) >14 weeks post-injection AND UPSI since 14 weeks post-injection, some of which took place within the last 21 day	If PT negative AND all UPSI that has taken place in the last 21 days was within the last 5 days, Cu-IUD can be inserted as EC	No
	Cu-IUD cannot be inserted if any UPSI occurred between 5 and 21 days ago	Consider PT and EC. Bridge with alternative contraception until pregnancy can be excluded by a high-sensitivity PT taken ≥21 days after last UPSI

Table 3: Switching to intrauterine contraception from a hormonal contraceptive method (contd)

Current Situation	Timing of insertion	Additional Precautions required
52 mg LNG-IUD in situ for < 6 years OR 19.5 mg LNG-IUD in situ for < 5 years OR 13.5 mg LNG-IUD in situ for < 3 years	Any time	No Ideally abstain/use condoms for 7 days prior to change in case new device can't be inserted
52 mg LNG-IUD in situ for 6–7 years†	Any time if PT negative on day of replacement	Ideally abstain/use condoms for 7 days prior to change. Repeat PT 21 days after last UPSI
52 mg LNG-IUD in situ for >7 years† AND no UPSI within the last 21 days OR 19.5 mg LNG-IUD in situ for >5 years AND no UPSI within the last 21 days OR 13.5 mg LNG-IUD in situ for >3 years AND no UPSI within the last 21 days	Any time if PT negative on day of replacement	No
52 mg LNG-IUD in situ for >7 years† AND UPSI within the last 21 days OR 19.5 mg LNG-IUD in situ for >5 years AND UPSI within the last 21 days OR 13.5 mg LNG-IUD in situ for >3 years AND UPSI within the last 21 days	If PT negative AND all UPSI that has taken place in the last 21 days was within the last 5 days, Cu-IUD can be inserted as EC	No

CHC, combined hormonal contraception; Cu-IUD, copper intrauterine device; DMPA, depot medroxyprogesterone acetate; DRSP, drospirenone; EC, emergency contraception; ENG, etonogestrel; HFI, hormone-free interval; IUC, intrauterine contraception; LNG-IUD, levonorgestrel intrauterine device; POP, progestogen-only pill; PT, pregnancy test; UPSI, unprotected sexual intercourse. *See Box 1 for how to exclude pregnancy. †Recommendations for the 52 mg LNG-IUD insertion relate to devices inserted before age 45 years.

iii. Insertion checklist

x. Intrauterine contraception pre-insertion checklist for the minimum criteria that should be met prior to insertion.

The clinician inserting the intrauterine contraception (IUC) should ensure that (as a minimum) the following criteria are met prior to insertion:

- ☐ Individual assessed as medically eligible
- ☐ Checked there are no indications for IUC to be inserted in an alternative setting/service
- ☐ Checked there are no allergies to IUC content or local anaesthetic
- ☐ Checked it is a suitable time to insert and any requirement for additional contraception/follow-up pregnancy testing
- ☐ Considered and offered sexually transmitted infection (STI) testing and/or cervical screening as appropriate
- ☐ Individual advised about:
- ☐ Different IUC types available
- ☐ Contraceptive effectiveness and time to effect (including need for additional contraception and/or follow-up pregnancy test)
- ☐ Duration of use (for contraception and other indications)
- ☐ Potential bleeding patterns
- ☐ Other potential side effects and risks
- ☐ Insertion procedure and associated risks including: pain, infection, expulsion, perforation, failure, ectopic pregnancy, non-visible threads
- ☐ Analgesia options and option to stop at any time during the procedure
- ☐ Signs/symptoms that require review
- ☐ How and when to check threads
- ☐ Removal procedure
- ☐ Individual given opportunity to ask questions and to reflect on new information and return for procedure or alternative at another time if they wish
- ☐ Type of IUC device confirmed with patient and assistant
- ☐ Expiry date on IUC and analgesia checked
- ☐ Suitably trained assistant present
- ☐ Appropriate equipment available (e.g. resuscitation equipment, appropriate examination couch/lighting, range of speculum sizes, analgesia options)

iv. Safe Cu-IUD Insertion

Training: Clinicians offering Cu-IUD insertion should hold the appropriate FSRH Letter of Competence in Intrauterine Techniques or have achieved equivalent recognised competencies and show evidence of recertification/reaccreditation.

Immediate postpartum intrauterine contraception (PPIUC) technique is different to standard Cu-IUD insertion and should only be performed by those who have trained in this technique.

All staff involved with Cu-IUD insertion should undergo training and regular updates in resuscitation.

Informed consent: Informed consent for undertaking a Cu-IUD procedure should be obtained in line with local policy

Assistants and Chaperones: A chaperone should be offered for all intimate examinations. The chaperone's role is to support the patient. An appropriately trained assistant should be present during all cervical instrumentation procedures. The assistant can also fill the role of a chaperone if trained. The assistant should support the individual during the Cu-IUD procedure and monitor the patient for any signs of pain or distress.

Check the device has not expired: Prior to inserting a Cu-IUD, check it has not expired. If an expired device is inadvertently inserted, inform the individual of the error and offer the option of retaining the device or having it removed and replaced. The expiry date relates to the microbiological sterility of the device. Risk of infection from loss of microbiological sterility could well be lower than the risk of infection if the device is replaced again when Intrauterine contraception. Manage the error according to local clinical governance policies and for more information refer to FSRH Clinical Guideline: Intrauterine contraception (March 2023) https://www.fsrh.org/standards-and-guidance/documents/ceuguidanceintrauterinecontraception

iv. Practical aspects of IUC insertion

Examination: A bimanual pelvic examination should be performed on all individuals prior to inserting IUC to allow the clinician to assess the position, size, shape and mobility of the uterus.

Measurement of pulse rate and blood pressure: Routine measurement of pulse rate and/or blood pressure before, during and/or after Cu-IUD procedures is not required but can be considered on a case-by-case basis, guided by the clinical picture.

Cervical cleansing: Cleansing the vulva, vagina or cervix prior to Cu-IUD insertion is not required.

Sterile gloves: There is no requirement to use sterile gloves when inserting Cu-IUD if a 'no touch' technique is used.

vi. Pain associated with Cu-IUD insertion

Individuals should be advised that most Cu-IUD insertions are associated with mild-to-moderate pain or discomfort, but that pain can range from none too severe. Analgesia options should be discussed and offered to individuals having a Cu-IUD inserted. Referral processes should be in place for circumstances where an individual requests an analgesia option that the clinician is unable to provide.

Clinicians should support and encourage users to tell them if they are experiencing pain or discomfort and reassure them that the procedure can be paused or stopped at any time.

Post-procedure analgesia NSAIDs such as ibuprofen can reduce pain after Cu-IUD insertion and can be offered to individuals who experience pain after insertion of an intrauterine method.

8. Emergency management for problems at IUC insertion

Cu-IUD insertion can trigger a vasovagal response. Drugs and equipment required for resuscitation must be available, accessible, clearly labelled, adequately maintained and their location known to all staff. Recommended drugs required for resuscitation are:

- Adrenaline 500mcg IM (0.5ml of 1:1000) (two doses if needed)
- Atropine 500 or 600 mcg IV/IM (two doses if needed) for the treatment of symptomatic bradycardia
- Oxygen.

Locally agreed risk management policies for the treatment of emergencies should be in place and take into account national recommendations.

9. Documentation

Clinicians inserting or removing Cu-IUDs should document the procedure and consultation in line with local policy and protocol and notify (where applicable and with consent) other relevant healthcare providers (e.g. primary care) of the type of device, date of insertion and recommended duration of use.

10. Aftercare advice and follow-up

After Cu-IUD insertion, individuals should be given information on the device inserted, including the name of the device, its mode of action, duration of use and that it will become effective immediately. The manufacturer's booklet/card will usually be given to the patient.

Where a Cu-IUD has been inserted outside of product licence information about how and when to perform a pregnancy test should be given.

With the exception of PPIUC, routine post-insertion check-ups with a clinician are not required. However, individuals who have had a Cu-IUD inserted should be advised they can seek review at any time if they have concerns, cannot locate their threads, or wish to change their method of contraception. They should be given information on who to contact and how.

Due to the increased risk of expulsion or long or non-visible threads with PPIUC, a routine Cu-IUD check-up is recommended when a Cu-IUD has been inserted within 48 hours of a vaginal or caesarean birth. These check-ups are undertaken 4–6 weeks post-insertion and Cu-IUD users should be advised where this will take place, in line with local PPIUC pathways.

Cu-IUD users should be advised to feel for their threads within the first 4–6 weeks after insertion and then at regular intervals (e.g. monthly or after menses) and if they have any concerns suggestive of Cu-IUD displacement (e.g. change in bleeding pattern, new-onset pelvic pain). Clinicians should explain how to feel for Cu-IUD threads and that users should seek review if threads are not palpable, thread length becomes shorter or longer, or the stem of the device is felt. Clinicians should explain that any of these changes could mean the Cu-IUD is incorrectly sited and therefore effectiveness cannot be guaranteed. The individual should be advised to abstain or use an alternative method of contraception until the Cu-IUD position is confirmed, and if there has been any recent, condomless sex they should seek advice as emergency contraception may be required.

In addition to seeking review if there are concerns when they check their threads, individuals should be advised to seek urgent review if they have:

- Symptoms of pelvic infection (e.g. change in vaginal discharge, pelvic pain and intermenstrual/ postcoital bleeding)
- Concerns regarding their bleeding pattern
- A positive pregnancy test.

Women can be encouraged to watch a 4 minute video produced by The West of Scotland Managed Clinical Network for Sexual Health for women who have recently had a Cu-IUD inserted which gives advice on what to expect, how to check for threads and when to seek advice.
https://sexualhealthdg.co.uk/iuc.php

11. Advice about use of menstrual cups, discs and tampons

Evidence suggests that there could be increased risk of expulsion associated with menstrual cup use. With many different brands available, users should be advised to follow the manufacturer's instructions, including any special considerations for Cu-IUD users. Care should be taken not to dislodge the Cu-IUD by accidently pulling the Cu-IUD threads when removing the menstrual device and, where applicable, users should be advised to ensure they release any suction from the menstrual device prior to removal.

Some clinicians advise avoiding tampons and menstrual cups for up to several weeks after Cu-IUD insertion, citing increased risk of expulsion or infection. There are not robust studies to inform effect of use of tampons on risk of expulsion.

There is no clear evidence of increased risk of infection associated with use of tampons, menstrual cups/discs or intercourse in the days or weeks after Cu-IUD insertion.

12. Advice for individuals requiring magnetic resonance imaging

Individuals requiring magnetic resonance imaging (MRI) with a device containing a metallic component should inform their MRI department so that local guidelines can be followed. The limited published evidence suggests that it is safe for an individual with a Cu-IUD to undergo MRI at a strength of 1.5 Tesla (T) or 3 T and therefore removal of the device would not normally be necessary unless the area of interest is very close to the position of the device (this could result in some imaging artefacts). Cu-IUD inserted outside of the UK may contain different metals and might not be MRI safe. Advice should be sought from the local radiology department. Devices containing stainless steel (e.g. the Chinese ring) are not MRI safe and should be removed prior to MRI.

13. Managing problems associated with IUC

i. Bleeding

Tranexamic acid or NSAIDs can be offered for management of HMB during use of a Cu-IUD. A 3-month trial of COC can be offered to medically eligible individuals with problematic bleeding during use of Cu-IUD. Medically eligible individuals could have their Cu-IUD removed and an LNG-IUD inserted (or other suitable contraception initiated)

As bleeding patterns will often change with Cu-IUD, provision of information about expected bleeding patterns is important. Although unscheduled bleeding may be caused by the Cu-IUD itself, other causes (e.g. pregnancy, infection, pathology) should be considered and investigated in line with FSRH Clinical Guideline Problematic Bleeding with Hormonal Contraception. Risk factors for endometrial cancer include older age, raised BMI, early menarche, nulliparity, use of HRT, use of tamoxifen, history of polycystic ovary syndrome, diabetes and a family history of endometrial cancer.

ii. New Onset Pelvic Pain

New-onset pelvic pain in a Cu-IUD user should be assessed, and pregnancy should be excluded. There are a number of possible causes for new-onset pelvic pain in a Cu-IUD user, many of which are not related to the Cu-IUD. A clinical history and physical examination will identify the differential diagnoses and guide the investigation and management. The history will determine the examination and investigations required; however, an abdominal and pelvic examination (speculum ± bimanual examination) and a pregnancy test would usually be required. Due to the potential serious consequences of an ectopic pregnancy, pregnancy should be excluded in all Cu-IUD users with new-onset pelvic pain. Other investigations/examinations that may be indicated would be urinalysis, STI screening, measurement of temperature/blood pressure/heart rate, pelvic ultrasound, rectal examination, blood tests. Where alternative causes have been excluded and the individual wishes Cu-IUD removal and replacement, clinicians could consider offering replacement with an alternative device (e.g. switching to a device with a smaller or different-shaped frame). There is, however, insufficient evidence to suggest one particular device over another.

Table Three: Possible causes if new onset pelvic pain [from FSRH Clinical Guideline: Intrauterine contraception (March 2023)]

Gynaecological causes	Other causes
IUC malposition/partial expulsion/expulsion	Appendicitis (± sepsis)
IUC perforation	Diverticulitis (± sepsis)
Pregnancy (ectopic, miscarriage, labour)	Irritable bowel syndrome/constipation
Pelvic inflammatory disease (± abscess/sepsis)	GI infection (± sepsis)
Ovarian cyst accident	GI obstruction/perforation/necrosis
	Urinary tract infection/pyelonephritis (± sepsis)
	Hernia

iii. Pregnancy

The risk of any pregnancy, including ectopic pregnancy, during use of Cu-IUD and after insertion of a Cu-IUD for EC is very low. However, among pregnancies that occur with a Cu-IUD in situ, the proportion that is ectopic is greater than among pregnancies occurring without IUC in situ.

A previous ectopic pregnancy is not a contraindication to use of Cu-IUD.

If someone with a Cu-IUD in situ has a positive pregnancy test, follow local assessment pathways. Explain that the risk of adverse pregnancy outcomes (including miscarriage, preterm delivery and septic abortion) is greater than that for pregnancies without a Cu-IUD in situ. Removal of the device may improve pregnancy outcomes and is advised when pregnancy is less than 12 weeks' gestation, as long as the threads are visible or can be easily removed from the endocervical canal. After 12 weeks' gestation or if threads are not visible, the decision to remove or retain the device should be considered on an individual basis in conjunction with the obstetric team. When a Cu-IUD is in situ in pregnancy, the individual's obstetric/maternity team should be made aware of the presence of the device.

iv. Infection

Pelvic inflammatory disease (PID) occurs as a result of upper genital tract infection, often due to ascending infection from the vagina or endocervix. Chlamydia trachomatis is the commonest causative organism (35% of PID cases). Instrumentation of the uterus for gynaecological procedures, including Cu-IUD insertion, can facilitate upward ascent of infection and therefore purulent cervicitis, gonorrhoea and symptomatic chlamydia infection are considered contraindications to Cu-IUD (UKMEC4). A sexual history should be taken prior to Cu-IUD insertion and screening offered to any individual at risk of an STI. For asymptomatic individuals, testing can be undertaken at the time of Cu-IUD insertion. The risk of PID appears to increase in the first 3 weeks after Cu-IUD insertion but overall the risk is very low and (<1% of all IUC users)

Cu-IUD users with a clinical presentation suggestive of PID should be given antibiotic treatment, managed in accordance with BASHH guidance, and reviewed after 48–72 hours. For individuals with mild-to-moderate PID, whose clinical condition is improving over the first 48–72 hours, the Cu-IUD can remain in situ. For individuals whose clinical condition does not improve after 48–72 hours of antibiotics, removal of Cu-IUD is normally recommended but should be considered alongside any potential risk of pregnancy if there has been unprotected vaginal sex within the preceding 7 days. An alternative method of contraception should be offered for ongoing contraception, and the need for EC and follow-up pregnancy testing considered. Insertion of a Cu-IUD when an individual has PID is a UKMEC4. Therefore, for individuals with PID that have their Cu-IUD removed but wish another IUC inserted, it is recommended that IUC insertion is delayed until antibiotic treatment has been completed and all signs and symptoms have resolved.

Candida & Bacterial vaginosis (BV):; Cu-IUD users with symptomatic, recurrent, confirmed VVC/BV not controlled by standard management may wish to switch to an alternative method of contraception.

Actinomycosis and presence of actinomyces-like organisms (ALO): Incidental findings of ALO are rare now that liquid-based cytology (LBC) and/or primary human papillomavirus (HPV) testing is now used for cervical screening. For more information refer to FSRH Clinical Guideline: Intrauterine contraception (March 2023)
https://www.fsrh.org/standards-and-guidance/documents/ceuguidanceintrauterinecontraception

v. Malposition

If malposition is suspected clinically or detected on a scan refer to senior clinician
Advise use of an alternative method of contraception meantime.

vi. Perforation

The rate of uterine perforation associated with IUC use is very low, with an overall risk of perforation in the general population of approximately 1–2 per 1000.

Perforation risk is greater if breastfeeding and postpartum at the time of insertion.

Perforation identified at the time of insertion. Stop procedure: remove Cu-IUD; monitor blood pressure and pulse rate and level of discomfort monitored until stable. Consider broad-spectrum antibiotics reduce the risk of peritonitis. Offer alternative contraception and advise to seek review if significant pain or signs/symptoms of infection develop.

Delayed identification of perforation. Lower abdominal pain, non-visible threads or changes in bleeding could indicate uterine perforation but are non- specific.

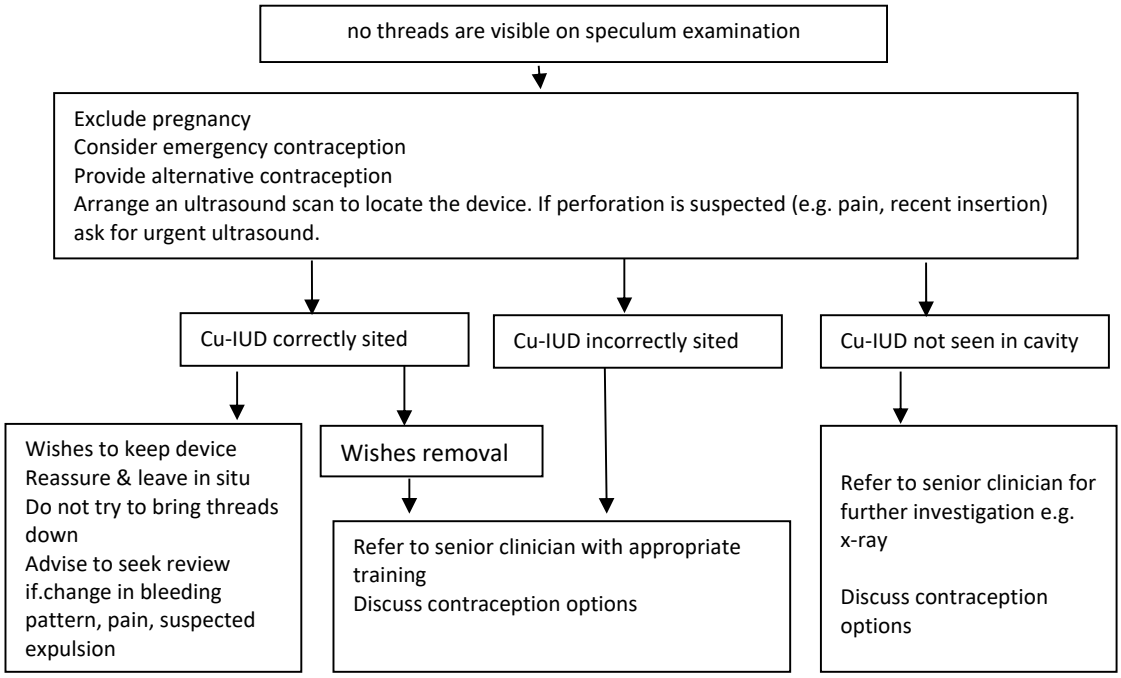
The presence of threads does not exclude perforation as the Cu-IUD could have breached the myometrium/other surrounding tissue or perforated the cervix.

Arrange urgent USS ± plain abdominal and pelvic X-ray should be arranged to locate the device. In the interim, consider EC, and offer alternative contraception.

Morbidity associated with detection and removal of an intraabdominal Cu-IUD appears to be low but uterine perforation can involve damage to the abdominal or pelvic viscera, bladder or bowel. If confirmed perforation liaise with gynaecology to consider laparoscopy

Wait at least 6 weeks after a known or suspected uterine perforation before inserting a subsequent IUD. Refer to a specialist service, where ultrasound is available.

vii. Non-visible threads



Thread problems after immediate PPIUC insertion – FSRH Clinical Guideline: Intrauterine contraception (March 2023)
https://www.fsrh.org/standards-and-guidance/documents/ceuguidanceintrauterinecontraception

viii. Expulsion

The overall risk of IUC expulsion is approximately 1 in 20 and expulsion appears to be most common in the first year of use, particularly within 3 months of insertion.

Expulsion rates are higher

- in immediate postpartum insertion compared with interval postpartum insertion
- in adolescents
- insertion after late first-trimester or second-trimester surgical abortions,
- in individuals with fibroids and HMB
- with use of a menstrual cup with IUC
- those who have had a previous expulsion

If the individual wishes to have another Cu-IUD this can be inserted once expulsion is confirmed. Users should be advised that the risk of expulsion appears to be higher in those who have had a previous expulsion. There is no evidence to suggest that switching to a different IUD may reduce the risk of a further expulsion.

If there have been ≥2 IUC expulsions, a pelvic ultrasound to assess the uterine cavity may be helpful prior to insertion of a further IUC.

Post-insertion USS is not predictive of the likelihood of further expulsion but can provide immediate confirmation of correct positioning.

14. IUC removal

i. Facilitating Safe Removal

There is no formal FSRH training for IUC removal: follow local pathways for developing and maintaining competence. FSRH resources to support clinicians removing IUC:

- IUC removal consultation video, IUC removal procedure video, IUC removal 'Top tips' (requires FSRH log-in)
- E-lfh eSRH Module 15, Section 10 "Removal of IUC".

Clinicians removing Cu-IUDs should be:

- Able to discuss ongoing contraception needs and provide this or signpost to another provider.
- Able to provide preconception counselling or signpost to another provider.
- Able to recognise pregnancy risk and the need for Emergency Contraception
- Competent at speculum examination
- Able to recognise an abnormal cervix and know how to refer for further examination.
- Aware of how to manage non-routine findings (e.g. non-visible threads).
- Up to date with basic life support training.

ii. Timing of Cu-IUD removal or replacement

- Individuals who do not wish to become pregnant should be advised to avoid UPSI for 7 days prior to Cu-IUD removal.
- Individuals should be advised to avoid UPSI for 7 days prior to Cu-IUD removal and replacement in case it is not possible to insert the new device.

Table5: Cu-IUD removal [from FSRH Clinical Guideline: Intrauterine contraception (March 2023)]

Situation	Advice
Removal for a planned pregnancy	• Offer preconception advice • Cu-IUD can be removed at any time • User should be advised that pregnancy is possible as soon as IUC removed
Removal – not for planned pregnancy and not switching to an alternative	• Abstain/use condoms in the 7 days prior to removal • If there has been UPSI in the 7 days prior to removal, ideally defer Cu-IUD removal until no UPSI for 7 days • Where this is not possible, consider EC AND Recommend a PT 21 days after the last episode of UPSI
Removal – menopause	• Contraception is no longer required when an individual Is aged 55 years or is aged >50 years and their LMP was >12 months ago • Cu-IUD should normally be removed when it is no longer required and not left in situ indefinitely
Removal and replacement	*See section* When can a Cu-IUD be inserted
Removal – switching to an alternative method of contraception	See FSRH Guidance Switching or Starting Methods of Contraception

iii. Unexpected findings at IUC removal

On removal of a Cu-IUD check the device is intact and that it is the expected device and the correct information about duration of use/follow-up/ongoing contraception has been given.

For advice with regards to broken or /incomplete device refer to FSRH Clinical Guideline: Intrauterine contraception (March 2023)
https://www.fsrh.org/standards-and-guidance/documents/ceuguidanceintrauterinecontraception

iv. Removal of an unusual device

For advice with regards to Cu-IUDs inserted abroad where the clinician is not familiar with the device refer to FSRH Clinical Guideline: Intrauterine contraception (March 2023)
https://www.fsrh.org/standards-and-guidance/documents/ceuguidanceintrauterinecontraception

v. Difficult removals:

Most Cu-IUD removals are straightforward. Difficult Cu-IUD removals may be due to a number of factors including anatomical variations, Cu-IUD malposition (including perforation), clinician experience and/or the level of pain or discomfort experienced. When there is difficulty in removing a Cu-IUD, a referral should be made to an experienced provider.

References

FSRH Clinical Guideline: Intrauterine contraception (March 2023)
https://www.fsrh.org/documents/ceuguidanceintrauterinecontraception/