COR2ED
THE HEART OF MEDICAL EDUCATION

Pain management with IUD placement

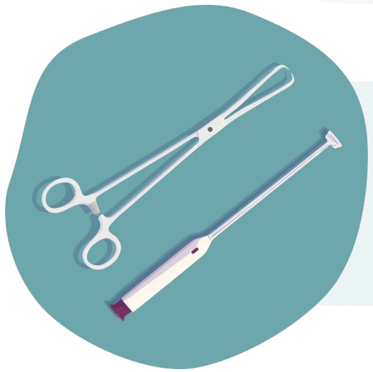
February 2023

Clinical takeaways

Fear of pain is a widespread concern among people considering an **IUD**

With the **right tools** you can address anxiety and pain before, during, and after placement

A **pre-placement conversation** puts the patient in control, and allows you to assess and address concerns and prepare for placement



The way you **choose and use the instruments** needed to place the IUD impacts the pain experienced by the patient

IUD, intrauterine device

DEVELOPED BY OBSTETRICS & GYNECOLOGY CONNECT

This programme is developed by OBSTETRICS & GYNECOLOGY CONNECT, an international group of experts in the field of obstetrics and gynaecology

OBSTETRICS & GYNECOLOGY connect®
POWERED BY COR2ED

Acknowledgement and disclosures

This OBSTETRICS & GYNECOLOGY CONNECT programme is supported through an independent educational grant from Aspivix. The programme is therefore independent, the content is not influenced by the supporter and is under the sole responsibility of the experts.

Please note: The views expressed within this programme are the personal opinions of the experts. They do not necessarily represent the views of the experts' organisations, or the rest of the OBSTETRICS & GYNECOLOGY CONNECT group.

Expert disclaimers:

Dr Carolyn Westhoff has received financial support/sponsorship for research from Sebela Women's Health (Sebela Pharmaceuticals).

Dr Michal Yaron's institution has received financial support/sponsorship for research from Aspivix.

Patty Cason has received financial support/sponsorship for research or consultation from Sebela Women's Health (Sebela Pharmaceuticals), Organon, and Merck.

This programme has been developed by a multidisciplinary panel of experts

Dr Carolyn Westhoff

- Sarah Billinghurst Solomon Professor of Reproductive Health at the Department of Obstetrics and Gynecology, Columbia University, New York, NY, USA
- Editor-in-Chief of Contraception
- Published more than 250 articles on contraception and abortion

Dr Michal Yaron

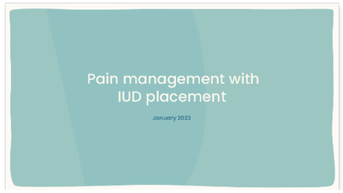
- Head of the Gynaecology Outpatient Clinic at the Department of Woman, Child and Adolescent Medicine at Geneva University Hospitals, Geneva, Switzerland
- Global experience as a practicing obstetrician–gynaecologist working in Israel, Canada, and Switzerland

Patty Cason, RN, MS, FNP-BC

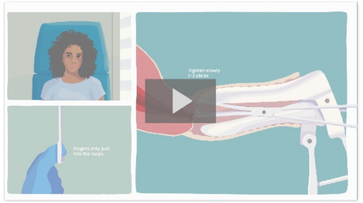
- Assistant Clinical Professor, School of Nursing, University of California, Los Angeles, CA, USA
- Family nurse practitioner, trainer, and educator with a specialty in sexual and reproductive health
- More than 40 years of experience in a wide variety of settings

What will you learn in this programme?

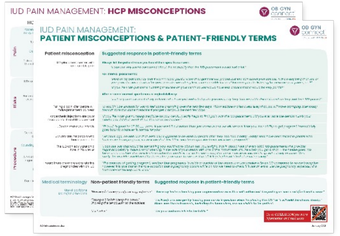
This slide deck is part of a programme consisting of four short educational resources aiming to support HCPs who place IUDs in the reduction of anxiety and pain before, during, and after IUD placement



SLIDE DECK
FULL
OVERVIEW



VIDEO
THE PAIN MANAGEMENT
TOOLBOX



FLASHCARD
COMMON MISCONCEPTIONS

PODCAST
EXPERTS SHARE THEIR
PERSONAL TIPS AND TRICKS

These four educational resources will provide you with tools and information to address anxiety and pain around IUD placement

UPON COMPLETION OF THIS PROGRAMME, YOU WILL:

- Understand the **causes of pain** during and after IUD placement, including the need for cervix stabilisation
- Actively **address pain** and anxiety associated with IUD placement
- Be able to **implement guidelines** on pain management before, during, and after IUD placement
- Know **alternative and innovative solutions** to reduce pain during and after IUD placement
- Understand the **potential for innovation** in procedures similar to IUD placement

HCP, healthcare professional; IUD, intrauterine device

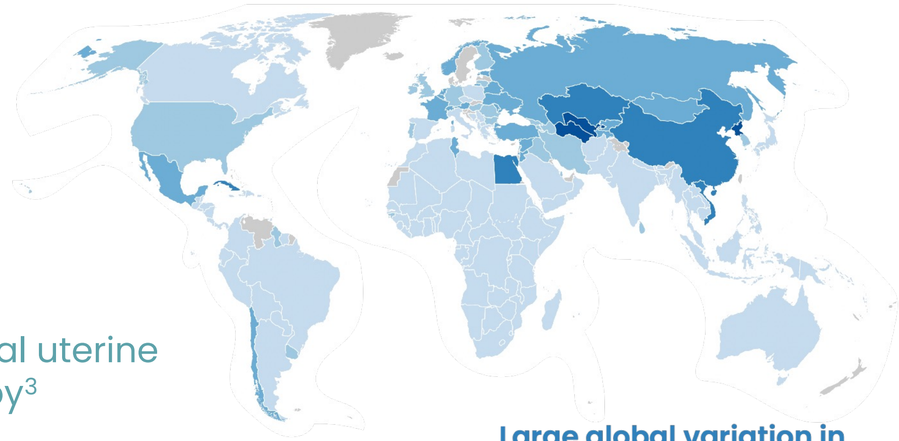
IUDs are associated with high patient satisfaction, but fear of pain is a widespread concern among people considering an IUD

IUDs are one of the most **effective methods of contraception.**[1]

- ~17% of women of reproductive age use an IUD, with 159 million users worldwide in 2019[2]

The **two main types** of IUDs include levonorgestrel-containing and copper devices, both indicated for contraception; **various sizes** are available.

- 52 mg levonorgestrel-containing IUDs are also indicated for the treatment of abnormal uterine bleeding and during menopause, for endometrium protection during hormone therapy[3]
- IUDs are also used (mostly off-label) as emergency contraception[4,5]
- IUD placement is also possible immediately after aspiration abortion (after confirmation of successful procedure) or at the check-up following medication abortion



Key **contraindications** for IUDs are current pelvic infection, pregnancy, certain malignancies (genital tract carcinomas; breast and liver cancer for hormone-containing IUDs), and uterine anomalies.[6]

IUD placement may be **painful** in some people, and **fear of pain** is still one of concerns people have about using an IUD.[7]

BACKGROUND READING
More information on eligibility criteria for IUDs: WHO Medical Eligibility Criteria for Contraceptive Use or US Medical Eligibility Criteria for Contraceptive Use.
More information on advantages and disadvantages of IUDs, as well as adverse events: Guidelines from The Faculty of Sexual and Reproductive Healthcare.

IUD, intrauterine device

1. Cleland K, et al. Hum Reprod. 2012;27:1994-2000; 2. United Nations, Department of Economic and Social Affairs, Population Division. Contraceptive Use by Method 2019: Data Booklet (ST/ESA/SER.A/435); 3. Grandi G, et al. Expert Opin Pharmacother. 2018;19:677-86; 4. Goldstuck ND, et al. Int J Womens Health. 2019;11:471-9; 5. Contraception d'urgence, methode Fiche Memo, April 2013, MAJ July 2019. 6. Faculty of Sexual & Reproductive Healthcare Clinical Effectiveness Unit of the Royal College of Obstetricians and Gynaecologists. Clinical Guidance: Intrauterine Contraception. September 2019; 7. Gemzell-Danielsson K, et al. Acta Obstet Gynecol Scand. 2019;98:1500-13

When placing an IUD, start with a pre-placement conversation

Anticipation or concern around potential pain is a **predictor** for actual pain.[1-3]

Before placement, it is essential to have a conversation with the patient to **address any concerns** around the IUD and the placement, putting the patient in control and allowing the HCPs to assess and address concerns, explain the procedure, and prepare for placement.

- This conversation should take place in the same visit as the placement; if this is not possible, schedule a separate (virtual or in-person) pre-placement visit

1 Assess the patient's **knowledge** and address any **misconceptions**

2 **Explain** the procedure and potential complications in **patient-centred language**

3 **Answer any questions** the patient may have

4 Ask for **consent to proceed**

See the flashcard associated with this programme for suggestions

On the next slide you will find tips for addressing vasovagal syncope

POTENTIAL TOPICS TO EXPLORE

1. Parity, time since last pregnancy, and type of delivery (vaginal or caesarean)
2. History of dysmenorrhea
3. Pain during speculum insertion or pelvic exam
4. Apprehension/anticipation of pain
5. (Negative) perceptions of IUDs
6. Anxiety, stress
7. Sexual trauma
8. Breastfeeding

HCP, healthcare professional; IUD, intrauterine device

1. Gemzell-Danielsson K, et al. Acta Obstet Gynecol Scand. 2019;98:1500-13; 2. Allen RH, et al. J Obstet Gynecol. 2014;34:263-7; 3. Dina B, et al. Am J Obstet Gynecol. 2018;218:236.e1-9

Prevention of vasovagal collapse starts before placement

Up to half of patients have **pre-syncopal symptoms** when they have an IUD placed.[1]

Isometric contractions of the extremities and intense gripping of the arm, hand, leg, and foot muscles can **stop the vasovagal reaction.**[2,3]

As part of the pre-placement conversation, **educate the patient** on the potential for vasovagal reactions, and on what to do if they experience pre-syncopal symptoms immediately after IUD placement.

PRE-SYNCOPAL SIGNS AND SYMPTOMS

- Facial pallor
- Yawning
- Pupillary dilatation
- Nervousness
- Weakness
- Lightheadedness
- Diaphoresis
- Visual blurring
- Headache
- Nausea
- Feeling warm or cold
- Sudden need to go to the bathroom

IUD, intrauterine device

1. Hall AM, Kutler BA. J Fam Plann Reprod Health Care. 2016;42:36-42; 2. van Dijk N, et al. J Am Coll Cardiol. 2006;48:1652-7; 3. Benditt DG, Nguyen JT. J Am Coll Cardiol. 2009;53:1741-51

Predictors of pain experience

Factor	Aspect thought to be associated with more pain[1]
History	**Low or nulliparity**[2-4] **Caesarean delivery;5** significantly less pain with a history of vaginal delivery[6] **Longer interval** between birth and placement (≥13 months)[2] History of **dysmenorrhea**[3,7]
Circumstances at the time of placement	**Not breastfeeding**[2] **Anticipating pain**[4-6]
During placement	Placement **difficulty**[6] Placement of an IUD with a **thicker (4.8 mm) inserter**[4] **Greater cervical resistance**[8] **No difference** in pain with **placement during or outside of menstruation** in parous and nulliparous women[9]

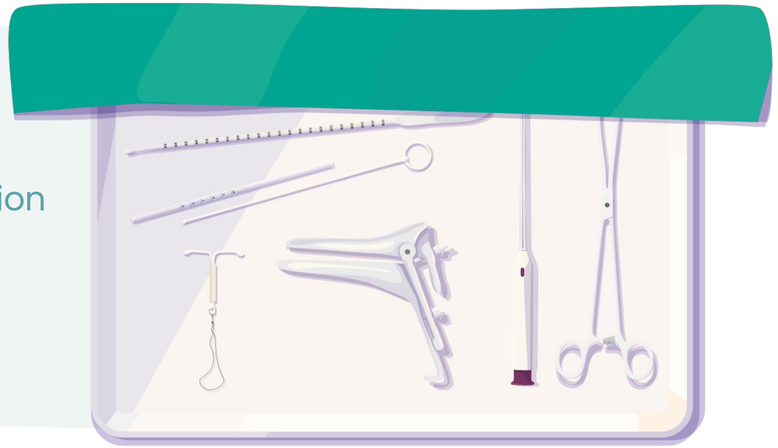
IUD, intrauterine device

1. Gemzell-Danielsson K, et al. Acta Obstet Gynecol Scand. 2019;98:1500-13; 2. Chi IC, et al. Contraception. 1996;34:483-95; 3. Allen RH, et al. Contraception. 2013;88:730-36; 4. Dina B, et al. Am J Obstet Gynecol. 2018;218:236.e1-9; 5. Santos ARG, et al. Contraception. 2013;88:164-8; 6. Allen RH, et al. J Obstet Gynecol. 2014;34:263-7; 7. Kaislasuo J, et al . Obstet Gynecol. 2014;124:345-53; 8. Goldstuck ND, Matthews ML. Clin Reprod Fertil. 1985;3:65-71;9. van der Heijden P, et al. BJOG. 2017;124:299-305

Practical organisation: setup for success

Organisation

- Make sure all instruments and materials are **readily available,** but covered
- Make sure there is sufficient **light,** and that you can work in a comfortable position
- Make sure the space is **comfortable and warm**
- Keep the patient as **clothed** as possible
- **Warm instruments** before use



Preparation

Perform a **bimanual exam** to ascertain size and position of uterus

If available, consider performing an **ultrasound** to exclude malformations and to assess uterine depth

Assess the **depth of the uterus** and **cervical resistance using a sound/hysterometer;** in some cases, this may inform the choice of device (based on the size of the device or the diameter of the insertion tube)

Faculty of Sexual & Reproductive Healthcare Clinical Effectiveness Unit of the Royal College of Obstetricians and Gynaecologists. Clinical Guidance: Intrauterine Contraception. September 2019; Serfaty D, et al. Eur J Contracep Rep Health Care. 2019;24:305-13

Apply trauma-informed care and consider anaesthetic options

Apply **trauma-informed care** throughout the procedure

- **Respect a 'no'** or other signals to stop from the patient
- **Pause** for a moment and allow the patient to make the choice whether to proceed or not

Practical tips

- **Cervical anaesthesia** should be part of informed consent
- Move **gently and slowly** throughout the placement procedure
- Engage the patient in **comfortable conversation,** asking questions to provide distraction

MORE INFORMATION
www.traumainformedcare.chcs.org

VARIOUS ANAESTHETIC OPTIONS ARE AVAILABLE

Paracervical (or intracervical) blocks[1,2]

- Although 2016 ACOG guidelines state that effectiveness is controversial, a RCT from 2018 in nulliparous women showed paracervical blocks decrease pain during and straight after IUD placement
- While administration of the block can be painful, perception of pain for the overall procedure was lower vs no block
- There are various methods for administering the block (Ipasa has practical guidance available: www.ipas.org/resource/paracervical-block-technique)
- Allow sufficient time for the analgesic to work before starting the procedure

Systemic analgesics (e.g. NSAIDs)[2,3]

- Effective in reducing post-placement cramps
- No evidence of reducing pain during placement

[a] Ipas is an international reproductive justice organization focused on expanding access to abortion and contraception. ACOG, American College of Obstetricians and Gynecologists; IUD, intrauterine device; NSAID, non-steroidal anti-inflammatory drug; RCT, randomised controlled trial

1. Mody SK, et al. Obstet Gynecol. 2018;132:575-82; 2. American College of Obstetricians and Gynecologists' Committee on Gynecologic Practice; Long-Acting Reversible Contraceptive Expert Work Group. Obstet Gynecol. 2016;128:e69-77; 3. Lopez LM, et al. Cochrane Database Syst Rev. 2015:CD007373

The right use of the speculum can limit pain during IUD placement

- Select the **right size:** smaller if possible; avoid a long speculum
- Select the **right shape** based on patient anatomy
- **Warm** the speculum before use
- **Time:** don’t keep it in the vagina for longer than needed

IUD, intrauterine device

Stabilising the cervix correctly can limit pain during IUD placement

When using a **tenaculum**

- Take a **bite of 1–1.5 cm**

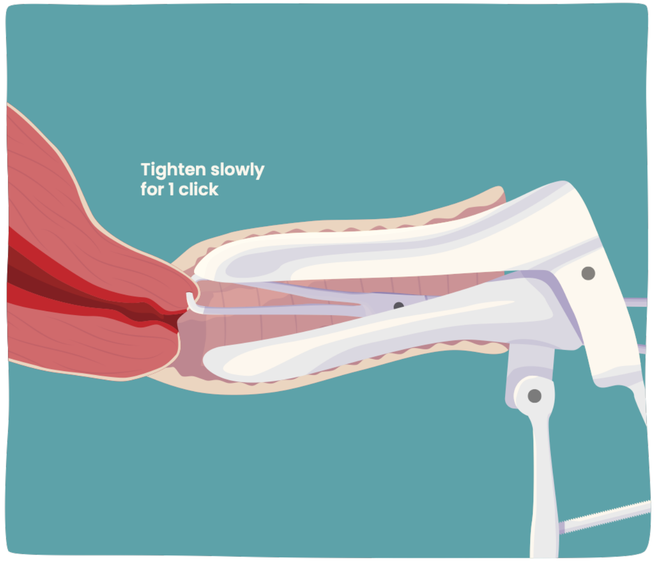
  Too small a bite will risk a tear, too big a bite may make it more difficult to close the tenaculum, can obstruct the cervical canal, and may inflict more pain

- **Tighten slowly** for one click

  Some clinicians ask the patient to cough, quickly placing the tenaculum timed to the cough; if you do this, hold the speculum during the cough and let the patient practice once before taking the actual bite

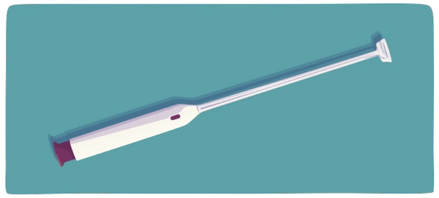
- **Take care not to unnecessarily move the tenaculum** after tightening it; each movement can be felt by the patient

  Avoid hooking fingers through the rings to avoid inadvertent movement



Use of a **vulsellum** or a single-tooth tenaculum does not seem to be associated with different levels of pain.[1]

Alternative devices are becoming available, including a **suction cervical stabiliser,** which is associated with lower rates of pain than a tenaculum throughout the procedure.[2]



IUD, intrauterine device

1. Doty N, MacIsaac L. Contraception. 2015;92:567-71; 2. Yaron M, et al. ESC 2022. Abstract #P105

The right use of the sound can limit pain during IUD placement

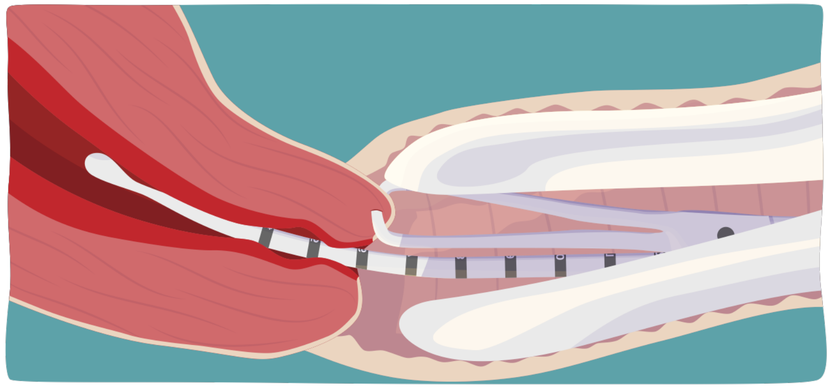
When sounding and placing the IUD, **place traction on the tenaculum** but take care not to move it when not necessary.

For metal sounds, **bend the distal 6-9cm** to be consistent with the shape of the uterus[1]

- Plastic sounds may be less likely to perforate[2]

Initiate the movement of the sound with **wrist or finger action**

- Avoid applying elbow or shoulder strength



Prevent perforation

- Only proceed if the depth and direction of the sound are compatible with bimanual exam findings
- Apply steady pressure to advance gently through the internal os without force
- If you encounter resistance at the internal os, evaluate the position and consider using a graduated plastic 'os-finder' to open the os before advancing the sound
- Once the sound is passed through the internal os, pause, and then advance slowly and intentionally to the fundus

Prevent discomfort by **avoiding repeat tapping** of the fundus

Some clinicians prefer to not use a sound, but measure the length of the uterine cavity with ultrasound instead

IUD, intrauterine device

1. Cason P and Goodman S. Protocol for Provision of Intrauterine Contraception. San Francisco: UCSF Bixby Center Beyond the Pill, 2016; 2. Duncan J, et al. BMC Womens Health. 2021;21:141

After IUD placement

Some clinicians **verify** IUD placement by ultrasound

Prevent vasovagal syncope

- Use anticipatory guidance so the patient can make isometric contractions of the extremities in case of pre-syncopal signs/symptoms
- Advise the patient to slowly change position, from the chair to standing up

Inform the patient that

- It’s normal to have cramps for up to a week after IUD placement, and that these can be treated with NSAIDs if they are painful or uncomfortable
- It’s normal to have changes in the menstrual bleeding pattern, and educate the patients on what these changes may be
- They may wish to regularly self-check if they can feel the threads

IUD, intrauterine device; NSAID, non-steroidal anti-inflammatory drug

Future developments and innovation

Analgesics

Anaesthetic gels

- Although a 2015 Cochrane review found no evidence that lidocaine 2% gel reduced pain associated with insertion, in 2016 a small RCT (N=59) showed **self-administered lidocaine 2% did not lead to less pain on placement** of the IUD in nulliparous people, but it **did reduce pain with tenaculum placement**[1,2]
- Studies are ongoing to assess whether intravaginal lidocaine in **higher concentrations** (5% or 10%) is effective in reducing pain
- In clinical practice, intravaginal lidocaine can be helpful (e.g. in patients with **vaginismus or genitourinary syndrome of menopause**)

In **select cases,** inhaled anxiolytics or a combination of oral medications and nitrous oxide are used.

- Studies are ongoing to assess the effect of hypnosis and virtual reality

Devices

Novel IUDs are in development or becoming available

- Smaller, thinner IUDs
- Different materials (e.g. nitinol)
- Different shapes (e.g. round IUDs)

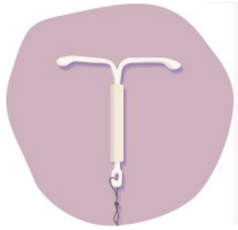
Reusable IUD inserters are in development.

Alternatives for the tenaculum are becoming available, such as a suction cervical stabiliser, which is associated with lower rates of pain and bleeding than a tenaculum throughout the procedure.[3]

IUD, intrauterine device; RCT, randomised controlled trial

1. Lopez LM, et al. Cochrane Database Syst Rev. 2015:CD007373; 2. Rapkin RB, et al. Obstet Gynecol. 2016;128:621-8; 3. Yaron M, et al. ESC 2022. Abstract #P105

Key learnings



IUDs have high level of patient satisfaction, but **fear of pain is a widespread concern** among people considering this type of contraception

- Take a patient history to **identify predictors of pain**

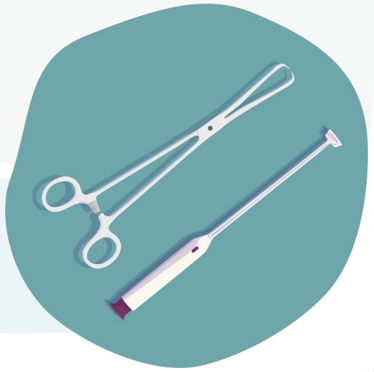
Develop your own **'toolbox'** to address anxiety and pain before, during, and after IUD placement

- Have a **conversation** with the patient **before placement** to assess knowledge; address any misconceptions; explain the procedure, prevention of vasovagal collapse, and potential complications; answer questions

  Consider and discuss **cervical anaesthetic options**

  End with asking for **consent** to proceed and apply **trauma-informed care** throughout the procedure

- Proper **preparation** sets you up for success
- The **right use of instruments and devices** can limit pain during IUD placement, including the choice and use of the speculum, cervix stabilisation, and the use of the sound
- **Prevent vasovagal syncope** during and after placement by isometric contractions of the extremities in case of pre-syncopal symptoms
- **Inform the patient** on what to expect after placement



Many new approaches and devices are becoming available to reduce pain around IUD placement, including anaesthetic options and novel IUDs, inserters, and cervical stabilisers

Further reading

Allen RH, et al. Contraception. 2013;88:730-36

Allen RH, et al. J Obstet Gynecol. 2014;34:263-7

American College of Obstetricians and Gynecologists' Committee on Gynecologic Practice; Long-Acting Reversible Contraceptive Expert Work Group. Obstet Gynecol. 2016;128:e69-77

Benditt DG, Nguyen JT. J Am Coll Cardiol. 2009;53:1741-51

Cason P and Goodman S. Protocol for Provision of Intrauterine Contraception. San Francisco: UCSF Bixby Center Beyond the Pill, 2016

Chi IC, et al. Contraception. 1996;34:483-95

Cleland K, et al. Hum Reprod. 2012;27:1994-2000

Dina B, et al. Am J Obstet Gynecol. 2018;218:236.e1-9

Duncan J, et al. BMC Womens Health. 2021;21:141

Faculty of Sexual & Reproductive Healthcare Clinical Effectiveness Unit of the Royal College of Obstetricians and Gynaecologists. Clinical Guidance: Intrauterine Contraception. September 2019

FSRH Clinical Guidance. Intrauterine Contraception. September 2019

Gemzell-Danielsson K, et al. Acta Obstet Gynecol Scand. 2019;98:1500-13

Goldstuck ND, et al. Int J Womens Health. 2019;11:471-9

Goldstuck ND, Matthews ML. Clin Reprod Fertil. 1985;3:65-71

Grandi G, et al. Expert Opin Pharmacother. 2018;19:677-86

Hall AM, Kutler BA. J Fam Plann Reprod Health Care. 2016;42:36-42

Kaislasuo J, et al . Obstet Gynecol. 2014;124:345-53

Lopez LM, et al. Cochrane Database Syst Rev. 2015:CD007373

Mody SK, et al. Obstet Gynecol. 2018;132:575-82

Rapkin RB, et al. Obstet Gynecol. 2016;128:621-8

Santos ARG, et al. Contraception. 2013;88:164-8

Serfaty D, et al. Eur J Contracep Rep Health Care. 2019;24:305-13

United Nations, Department of Economic and Social Affairs, Population Division. Contraceptive Use by Method 2019: Data Booklet (ST/ESA/SER.A/435)

van der Heijden P, et al. BJOG. 2017;124:299-305

van Dijk N, et al. J Am Coll Cardiol. 2006;48:1652-7

COR2ED

THE HEART OF MEDICAL EDUCATION

For more information visit

OBSTETRICS & GYNECOLOGY connect®

POWERED BY COR2ED

Connect on
LinkedIn @OBGYN CONNECT

Watch on
YouTube @COR2ED

Email
info@cor2ed.com

Visit us at
https://cor2ed.com/

Follow us on
Twitter @OBGynConnect

Heading to the heart of Independent Medical Education Since 2012