

# Contraception

- **Male condom**
- **Female condom ('Femidom')**
- **Spermicide**
- **Combined pill**
- **Patch**
- **Progestogen-only pill (POP)**
- **Injection**
- **Intrauterine device (IUD)**
- **Intrauterine system (IUS) or 'Mirena'**
- **Implant**
- **Diaphragm**
- **Emergency pill**

Hormonal and intrauterine contraception is available through dedicated community contraception and sexual health clinics, Departments of Sexual Health within hospitals (sometimes called Genito-Urinary Medicine Services) and general practice surgeries. Hormonal emergency contraception is also available from additional sources such as Accident and Emergency departments, some school nurses, and over the counter at pharmacies. Some pharmacies are involved in schemes in which hormonal emergency contraception can be obtained free of charge. Condoms are available from contraception and sexual health clinics, various commercial outlets (usually pharmacies), some bars and nightclubs, some GPs and various community schemes.

This section aims to provide an overview of the contraceptive methods that are available, describing their efficacy, how they work, and their advantages and disadvantages, contraindications and possible side-effects.

## Male condom

### *Efficacy*

The male condom is 98% effective.

### *How does it work?*

It is put over an erect penis in order to prevent sperm from entering the vagina.

### *Advantages*

- As well as preventing pregnancy, condoms (including the female condom) are the only contraceptive method that also protects against STIs.
- Condoms come in a variety of different types. They are available in different flavours and colours, or may be ribbed, with or without spermicide, made of latex or polyurethane, and may be sensitive or extra strong.

### *Disadvantages*

- Condom use must be negotiated between both partners.
- The use of a condom may be perceived as interrupting sex.

### *Contraindications*

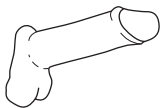
Allergy to latex or spermicide (polyurethane condoms are available).

### *Possible problems*

- Bursting, splitting or slipping of the condom during sexual intercourse.
- Allergy to the condom.
- Loss of sensation.

### *How to use a male condom<sup>1</sup>*

#### **Step 1**

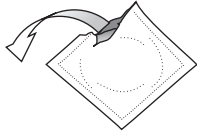


Check for (CE) mark – the European standard mark (indication of quality standard; has been tested).

Check the condom is in date.

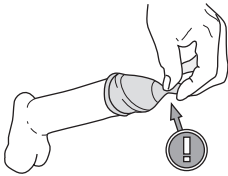
Check for tears and rips in the packet. Any hole in the packet will mean the condom has dried out and may split. It is best to keep condoms in a dry, cool place.

Put the condom on when the penis is erect, before there is any contact between the penis and the partner's body. Fluid released from the penis during the early stages of an erection (pre-ejaculate) can contain sperm.

**Step 2**

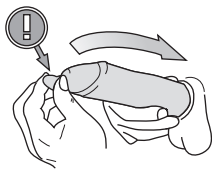
Push the condom down to the bottom of the packet and carefully tear along one side of the foil, being sure not to rip the condom inside. Teeth and nails can make a hole in the condom.

Carefully remove the condom.

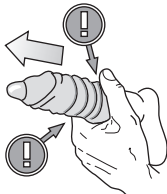
**Step 3**

Air trapped inside a condom can cause it to break. To avoid this, squeeze the closed end of the condom between your forefinger and thumb and place the condom over the erect penis. Be sure that the roll is on the outside.

If you find the condom is on upside down and isn't rolling, throw it away and start again. If you just turn it around there will be sperm on the outside from the pre-ejaculate.

**Step 4**

While still squeezing the closed end, use your other hand to unroll the condom gently down the full length of the penis.

**Step 5**

Soon after ejaculation, withdraw the penis while it is still erect by holding the condom firmly in place. Remove the condom only when the penis is fully withdrawn.

Keep both the penis and condom clear from contact with your partner's body.

**Step 6**

Dispose of the used condom hygienically. Wrap it in a tissue and place it in a bin. (Do not flush it down the toilet.)

## Female condom ('Femidom')

### *Efficacy*

The female condom is 95% effective.

### *How does it work?*

Femidom is a pre-lubricated soft polyurethane sheath that lines the vagina and acts as a barrier to sperm entering the vagina. It has a smaller inner ring and a larger outer ring. The smaller inner ring is used to feed the Femidom into the vagina. Most of the Femidom goes inside the vagina, and the larger ring overlaps the outer area of the vagina.

### *Advantages*

- The woman has control over the use of this method.
- It protects against STIs.

### *Disadvantages*

- Some people find the female condom noisy.
- Use of the female condom may be perceived as interrupting sex.

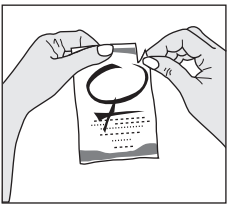
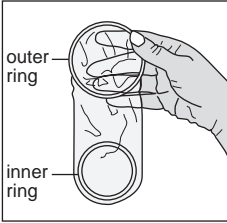
### *Contraindications*

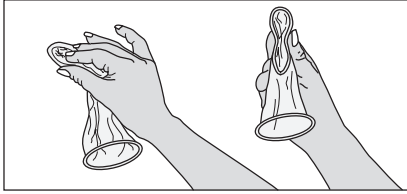
Allergy to spermicide.

### *Possible problems*

- The penis may be inserted outside the female condom.
- Some users have commented that the female condom makes a rustling noise.

### *How to use a female condom<sup>2</sup>*

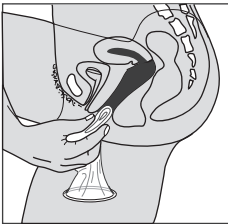
<p><b>Step 1</b></p> 	<p>Open the package carefully; tear at the notch on the top right of the package. Do not use scissors or a knife to open.</p>
<p><b>Step 2</b></p> 	<p>The outer ring covers the area around the opening of the vagina. The inner ring is used for insertion and to help hold the sheath in place during intercourse.</p>

**Step 3**

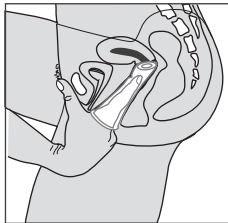
While holding the sheath at the closed end, grasp the flexible inner ring and squeeze it with the thumb and second or middle finger so it becomes long and narrow.

**Step 4**

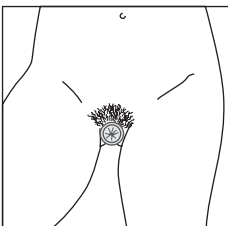
Choose a position that is comfortable for insertion – squat, raise one leg, sit or lie down.

**Step 5**

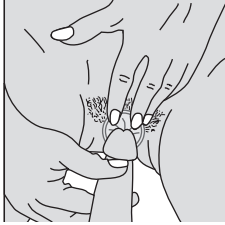
Gently insert the inner ring into the vagina. Feel the inner ring go up and move into place.

**Step 6**

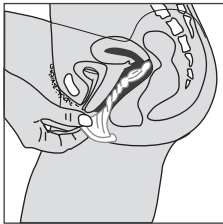
Place the index finger on the inside of the condom and push the inner ring up as far as it will go. Be sure the sheath is not twisted. The outer ring should remain on the outside of the vagina.

**Step 7**

The female condom is now in place and ready for use with your partner.

**Step 8**

When you are ready, gently guide your partner's penis into the sheath's opening with your hand to make sure that it enters properly – be sure that the penis is not entering on the side, between the sheath and the vaginal wall.

**Step 9**

To remove the condom, twist the outer ring and gently pull the condom out.

**Step 10**

Dispose of the used condom hygienically. Wrap it in the package or in tissue and throw it in the bin. (Do not flush it down the toilet.)

## Spermicide

### *Efficacy*

When this method is used alone its efficacy is poor.

### *How does it work?*

It consists of a foam, cream or jelly that kills sperm.

Because it is not very effective in preventing pregnancy when used on its own, it is usually combined with another method, as a lubricant and back-up to the main barrier method (e.g. diaphragm).

### *Advantages*

- It provides lubrication.
- Spermicide is readily available.
- It can be used with barrier methods of contraception.

## *Disadvantages*

- Some users find it messy.
- It is not very effective when used alone.

## *Contraindications*

Allergy to spermicide.

## *Side-effects*

Local irritation.

*Note:* Condoms do not generally have spermicide on them, as there has been a reported association with increased transmission of STIs. Spermicide can irritate the epithelium and cause small cracks and cuts, which provide channels by which pathogens can enter the skin and bloodstream. The World Health Organization has recommended that condoms should have a non-spermicidal lubricant.

## **Combined pill**

### *Efficacy*

The combined pill is over 99% effective if taken according to instructions.

### *How does it work?*

The combined pill contains hormones that mimic the body's natural hormones (oestrogen and progestogen). The pills stop ovulation while they are being taken. The combined pill also makes cervical mucus thicker, which prevents sperm from reaching an egg. Pills are taken for 3 weeks, and there is then a 7-day break. During this break there is usually a short, light bleed. This is not an actual period, but a 'withdrawal bleed' caused by the level of hormones dropping while the pill is not being taken. The next packet should be started on day 8, regardless of whether there is bleeding or not, in order to ensure continued protection.

This pill should be taken at the same time every day, but if forgotten can be taken up to 12 hours later. If more than 12 hours have elapsed, the pill should be taken as soon as remembered, and no extra protection is needed. If two or more pills are missed, depending on where they are in the packet, emergency contraception may be required, so consultation with a contraception specialist is recommended.

Family Planning Association  
Tel: 0845 310 1334

NHS Direct  
Tel: 0845 4647

If the forgotten pills are in the third week of the pack, start the next packet straight away without a break. Research has shown that after 9 days of not taking the combined pill, the ovaries can release an egg. Running on to the next packet avoids this.

Some medicines can prevent the pill from working properly. Most commonly antibiotics may interfere with the efficacy of the pill. If antibiotics are being taken, the pill should be continued, but extra precautions should be taken while the woman is on antibiotics and for 7 days after the antibiotics have finished. If the doctor prescribes any medication or if the woman obtains any herbal remedies over the counter it is important to make sure that these do not prevent the pill from working properly.

Diarrhoea and vomiting can prevent the pill from working by reducing the absorption of the pill in the gut. Extra precautions should be used while the woman is ill and for 7 days afterwards.

### *Advantages*

- The user is in control of the method.
- There is a quick return of fertility after stopping use of the combined pill.
- It often makes bleeds lighter and less painful.
- The combined pill is protective against womb and ovarian cancer.

### *Disadvantages*

- It needs to be taken regularly in order to be effective.
- Rare side-effects may include blood clots, increased risk of breast cancer and cervical cancer.

### *Contraindications*

- Pregnancy.
- Breastfeeding.
- Undiagnosed vaginal or uterine bleeding.
- Past or present venous or arterial thrombosis.
- Cardiovascular and ischaemic heart disease.
- Lipid disorders.
- Focal migraines.
- Cerebral haemorrhage.
- Active liver disease.
- Oestrogen-dependent neoplasms.
- Obesity (BMI greater than 35 kg/m<sup>2</sup>).
- Severe diabetes mellitus with complications.
- Smokers over the age of 35 years.
- Family history of arterial or venous disease in a first-degree relative (mother, father or sibling) under 45 years of age.
- Acute episodes of Crohn's disease and ulcerative colitis.

### *Relative contraindications*

- Sickle-cell disease.
- Severe depression.
- Inflammatory bowel disease in remission.
- Diseases in which high-density lipoprotein is reduced (e.g. diabetes).
- Splenectomy.
- Diseases in which drug treatment may affect the efficacy of the combined pill (e.g. tuberculosis, epilepsy).
- Diabetes mellitus.
- Obesity (BMI in the range 30–35 kg/m<sup>2</sup>).

### *Possible side-effects*

- Nausea (often short term).
- Breast tenderness and swelling (often short term).
- Breakthrough bleeding.
- Depression.
- Changes in libido.

### *A note on two specific combined oral contraceptive pills*

- **Yasmin** contains the progestogen drospirenone. Drospirenone differs from other progestogens in COCs in that it has diuretic properties due to anti-mineralocorticoid activity. This may help to counteract the salt- and fluid-retaining effects of oestrogen and thus reduce fluid retention symptoms. It has also been associated in a small trial with a very small lowering of blood pressure. In addition, drospirenone is an anti-androgen, so may be an option for conditions such as PCOS.
- **Dianette** contains cyproterone acetate, an anti-androgenic progestogen, which is beneficial for women with androgenic symptoms such as hirsutism, obesity, acne, irregular periods or amenorrhoea. Dianette has an increased risk of inducing deep vein thrombosis, and is not suitable for long-term use.

## Patch

### *Efficacy*

The contraceptive patch is 99% effective.

### *How does it work?*

The patches contain oestrogen and progestogen. These hormones are absorbed through the skin and prevent ovulation. The patch can be put on the woman's arm, thigh, back, shoulder or buttock. One patch is worn each week for 3 weeks, followed by a patch-free week.

The patch is very sticky and unlikely to become detached. However, if it does, or a new patch is not put on, advice should be sought at a clinic and condoms used until the woman is advised that it is safe to continue without a back-up method.

The manufacturer has provided the following advice.

- If the patch change day is delayed by less than 48 hours, the patch should be changed and the patch change day remains the same.
- If the patch change day is delayed by more than 48 hours, a new patch should be put on, and a new 4-week cycle begun, with a new patch change day. Extra precautions should be used for the next 7 days. A delay of 3 days or more may require emergency contraception.
- If the third patch in a cycle is left on into the patch-free week, the patch should be removed as soon as it has been remembered and a new cycle started at the normal time.
- If the patch-free interval is extended beyond 7 days, similarly to the combined pill, it is assumed that an egg may have been released after 9 days and emergency contraception is needed.

### *Advantages*

- Some side-effects may be less than with the combined pill, as the hormones are released directly into the bloodstream.
- Only three patch changes are needed per cycle.
- The user is in control of the method.
- There is a quick return of fertility after stopping use of the pill.
- The patch often makes bleeds lighter and less painful.
- As it is similar to the combined pill, the patch may be protective against uterine and ovarian cancer.
- Daily activities such as bathing, showering, swimming and exercise can all be continued as normal without the patch coming off.

### *Disadvantages*

- The patch needs to be changed at weekly intervals in order to be effective.
- As the hormones are similar to those in the combined pill, risks such as blood clots and cancers may be similar.

### *Contraindications*

These are the same as for the combined oral contraceptive pill (*see* page 166).

### *Possible side-effects*

These are the same as for the combined oral contraceptive pill (*see* page 167).

In addition, there may be application site reactions.

## **Progestogen-only pill (POP)**

### *Efficacy*

The progestogen-only pill (POP) is 99% effective if taken according to the manufacturer's instructions.

### *How does it work?*

The hormone progestogen thickens the cervical mucus, thereby preventing the sperm from reaching an egg. In some women it stops ovulation.

The POP is taken every day without a break. It must be taken at the same time every day, and will not be effective if it is taken over 3 hours late. After this time the mucus plug at the cervix comes away and does not prevent sperm from entering the uterus. If a pill is forgotten and it is more than 3 hours late, it should be taken as soon as remembered and condoms used for the next 7 days in addition to taking the pill, until a protective level of hormone is reached.

*Note:* the relatively new POP Cerazette is primarily an anovulant (stops egg production), and will not be effective if it is taken over 12 hours late.

Some drugs may interfere with the efficacy of the POP. Therefore if the doctor prescribes medication it is always best to check that it doesn't interfere with this pill.

Vomiting within 3 hours of taking the pill may make it ineffective. Extra precautions should be taken for the following 7 days as well as taking the pill.

### *Advantages*

- The user is in control of the method.
- There is a quick return of fertility after stopping use of the pill.
- It can be used while breastfeeding.
- It is suitable for women who are unable to use the combined pill.

### *Disadvantages*

- It needs to be taken carefully at the same time each day.
- Periods may be irregular.

### *Contraindications*

- Pregnancy.
- Undiagnosed bleeding from the genital tract.
- Previous or current severe arterial disease.
- Severe lipid abnormalities.
- Recent trophoblastic disease.
- Previous ectopic pregnancy.
- Current liver condition.

### *Possible side-effects*

- Functional ovarian cysts.
- Breast tenderness.
- Feeling bloated.
- Depression.

- Fluctuations in weight.
- Nausea.
- Irregular bleeding or absence of bleeding.

## Injection

### *Efficacy*

The Depo-Provera injection is over 99% effective.

### *How does it work?*

An injection is given once every 3 months, usually in the buttock (although it can be given in the arm or thigh). It uses one hormone, progestogen, which stops ovulation while the hormone is in the system.

Some drugs can reduce the efficacy of the injection, so it is always best to check with the doctor whether a prescribed medication will interfere with the injection.

### *Advantages*

- Only one injection every 12 weeks is needed.
- The user is not involved (i.e. they are not responsible for the effectiveness of contraception).
- It usually stops periods. As it keeps the womb lining at the same thickness, there is no build-up of blood.

### *Disadvantages*

- There may be some irregular bleeding or spotting initially.
- Once the hormone injection has been given it cannot be withdrawn.
- After stopping the injection it can take up to a year for ovulation to reoccur (but in some cases fertility returns as soon as an injection is due).

### *Contraindications*

- Pregnancy.
- Undiagnosed bleeding from the genital tract.
- Previous or current severe arterial disease.
- Severe lipid abnormalities.
- Recent trophoblastic disease.
- Current liver condition.
- Severe depression.

### *Possible side-effects*

- Headache.
- Feeling bloated.

- Depression.
- Weight gain.
- Mood swings.
- Irregular bleeding or absence of bleeding.
- Changes in libido.

## Intrauterine device (IUD)

### *Efficacy*

The IUD is 98% to over 99% effective.

### *How does it work?*

The IUD is a small plastic T-shaped device with thin copper wire wrapped around it. It remains in the womb and is fitted by a clinician. The copper is noxious to sperm and eggs and prevents them meeting. An IUD lasts for up to 10 years (depending on the licence of the particular device), although it can be removed at any time.

The IUD is a contraceptive choice for women who have not had children. It can also be fitted as a form of emergency contraception up to 5 days after unprotected sex (or 5 days after earliest ovulation). It may be more difficult to fit an IUD in a cervix that has not been stretched through childbirth.

### *Advantages*

- It is effective immediately.
- No hormones are involved.
- It is immediately reversible.
- The user is not involved (i.e. they are not responsible for the effectiveness of contraception).

### *Disadvantages*

- It can make periods heavier and longer.
- It needs to be inserted and removed by a clinician.

### *Contraindications*

- Pregnancy.
- Undiagnosed bleeding from the genital tract.
- Previous ectopic pregnancy.
- Pelvic or vaginal infection.
- Abnormalities of the uterus.
- Allergy to components of the IUD.

- Wilson's disease.
- Heavy painful periods.
- Fibroids/endometriosis.

### *Possible side-effects*

- Heavier and more painful periods.
- Increased (but minimal) risk of ectopic pregnancy if the IUD fails.
- Wrong positioning or expulsion of the IUD.
- Pregnancy due to wrong positioning or expulsion of the IUD.

## **Intrauterine system (IUS) or 'Mirena'**

### *Efficacy*

The IUS is over 99% effective.

### *How does it work?*

It is a small plastic device with a slow-release preparation of hormone in the stem. It sits in the womb, and is inserted and removed by a clinician. The hormone is progestogen, which works by thickening the cervical mucus, thereby preventing sperm from reaching an egg. It also makes the lining of the womb unfavourable for implantation. The Mirena lasts for up to 5 years. As it works in a different way to the IUD, it is not effective as emergency contraception.

### *Advantages*

- It is effective immediately.
- The user is not involved (i.e. they are not responsible for the effectiveness of contraception).
- Periods will be much lighter, shorter and less painful.
- Periods may stop.

### *Disadvantages*

- There may be some irregular bleeding.
- The IUS needs to be inserted and removed by a clinician.
- There is a risk of expulsion or wrong positioning.
- Pregnancy may occur if there is expulsion or wrong positioning of the IUS.

### *Contraindications*

- Pregnancy.
- Undiagnosed bleeding from the genital tract.

- Abnormalities of the uterus.
- Uterine or cervical malignancy.
- Current liver condition.

### *Possible side-effects*

- Breast tenderness.
- Acne.
- Headache.
- Feeling bloated.
- Mood changes.
- Nausea.
- Irregular bleeding or no bleeding.

## **Implant**

### *Efficacy*

- The implant is over 99% effective.

### *How does it work?*

It is a small soft tube the size of a matchstick, and is inserted beneath the skin of the upper arm by a doctor or nurse. It is not visible but can be felt beneath the skin. Like the injection, it releases a small amount of progestogen every day and stops ovulation. It also makes the cervical mucus thicker, thus presenting a barrier that prevents sperm from reaching the egg. It lasts for 3 years.

### *Advantages*

- It is effective immediately.
- The user is not involved (i.e. they are not responsible for the effectiveness of contraception).

### *Disadvantages*

- The bleeding pattern can be unpredictable.
- The implant requires insertion and removal by a doctor or nurse.

### *Contraindications*

- Pregnancy.
- Undiagnosed vaginal bleeding.
- Severe arterial disease.
- Liver adenoma.

### *Possible side-effects*

- Irregular bleeding or no bleeding.
- Nausea.
- Vomiting.
- Headache.
- Dizziness.
- Breast discomfort.
- Depression.
- Skin disorders.
- Disturbance of appetite and/or weight changes.
- Changes in libido.

## **Diaphragm**

### *Efficacy*

The diaphragm is 92–96% effective if used according to the manufacturer's instructions.

### *How does it work?*

The diaphragm is a round dome made of rubber that is used together with spermicide. It is inserted inside the vagina and covers the cervix. It provides a barrier that prevents sperm entering the cervix and reaching an egg.

### *Advantages*

- The woman is in control of the method.
- No hormones are involved.
- It provides lubrication.

### *Disadvantages*

- Some users find this method messy.
- The woman needs to be motivated to use it.
- The woman needs to be able to find her own cervix in order to check that the diaphragm is in the correct position.
- It is less effective than other methods.

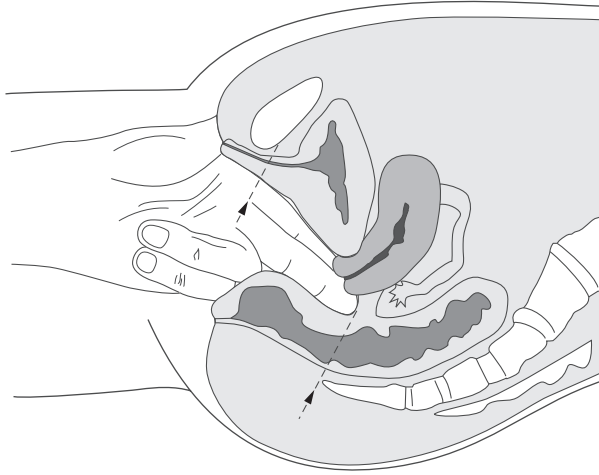
### *Contraindications*

Allergic reaction to spermicide.

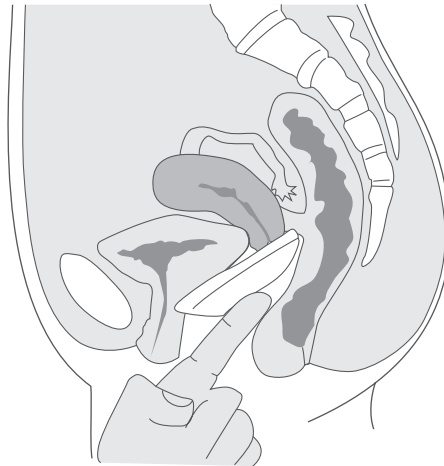
### *Side-effects*

- Local irritation.

## How to use a diaphragm



**Figure 7** Diaphragm: assessing the size.



**Figure 8** Checking the position of the diaphragm.

## Emergency pill

### *Efficacy*

The sooner the emergency pill is taken, the more effective it is. It can be taken up to 3 days (72 hours) after unprotected sexual intercourse.

### *How does it work?*

The emergency pill contains the hormone progestogen. Depending on the stage in the woman's cycle at which it is taken, it either delays ovulation so that there

is no egg for the sperm to fertilise or, if the egg has already been fertilised, it prevents it from implanting in the uterus.

### *Advantages*

- It is effective in preventing pregnancy.
- The woman is in control of the method.
- It can be used after unprotected sexual intercourse.

### *Disadvantages*

- It does not provide future contraception.
- It may disrupt the next menstrual period.
- The later it is taken, the less effective it is, and it is only 95% effective at best.

### *Contraindications*

The effectiveness of the emergency pill can be reduced by some drugs.

### *Possible side-effects*

- Nausea and vomiting.
- Breast tenderness.
- Headache.
- Dizziness.
- Fatigue.
- Bleeding patterns may be temporarily disturbed.

### **Useful resources**

Faculty of Family Planning and Reproductive Health Care; [www.ffprhc.org.uk](http://www.ffprhc.org.uk)  
Family Planning Association; [www.fpa.org.uk/guide/contracep/index.htm](http://www.fpa.org.uk/guide/contracep/index.htm)

### **References**

- 1 [www.feelconfident.co.uk/condoms/how\\_to\\_put\\_on\\_a\\_condom.htm](http://www.feelconfident.co.uk/condoms/how_to_put_on_a_condom.htm)
- 2 [www.eros.shop.co.uk/how\\_to\\_use\\_a\\_femidom\\_guide.html](http://www.eros.shop.co.uk/how_to_use_a_femidom_guide.html)