This training, available free and exclusively to DDA members, is designed to provide practice dispensary staff with background information on oral contraceptives so you can help your patients better manage their fertility.

Throughout this training, you will find various activities to help reinforce your learning. Ten, multiple choice questions at the end will help you identify any areas needing a quick recap.

The aim of contraception is to prevent pregnancy, and in the UK – where most people can access free contraception – there are 15 methods to choose from. The most popular for women is ‘the pill’, which contains progesterone, or progesterone plus oestrogen. The former is sometimes referred to as ‘the mini-pill’, but it is more accurately termed the progesterone-only pill (POP); the product with two hormones known as the combined oral contraceptive (COC).

Activity one
Look at the relevant sections of the British National Formulary or MIMS on COCs and POPs

Activity two
Can you think of the 15 methods of contraception available in the UK? Visit this FPA website page if you need a hint.

They also make the lining of the uterus thinner which reduces the chance of a fertilised egg implanting and starting to develop.

Activity three
Zoely is a monophasic pill that does not conform to the 21-day norm. If you have a pack available, look at section 1 of the patient information so you can see how it differs

During the pill-free week, the woman will usually experience a withdrawal bleed, which is like a period. Some monophasic COCs tablets in order to minimise the risk of confusion over when to stop and restart tablet taking.

Some COCs are phasic, which means that they include tablets that contain different quantities of hormones that must be taken in a certain order. Again, most are 21 day products, with women needing to take a seven day pill-free (or placebo tablet) interval between packs, during which time they will experience a withdrawal bleed.

Activity four
Using the BNF or MIMS, find a phasic COC on the shelf of your dispensary and look at the strips of tablets to get an idea of how and when each type should be taken. Alternatively, look at this image

COCs
It is difficult to put exact figures on contraception use in the UK, because there are so many places that services can be accessed, but the combined oral contraceptive is certainly one of the most popular. The oestrogen and progesterone contained in a COC stop the ovaries releasing an egg each month, and thicken cervical mucus - which makes it difficult for sperm to get to the womb and fallopian tubes where fertilisation takes place.

Activity four
Using the BNF or MIMS, find a phasic COC on the shelf of your dispensary and look at the strips of tablets to get an idea of how and when each type should be taken. Alternatively, look at this image
COCs are over 99 per cent effective if taken according to instructions, which means that less than one woman in every hundred taking a COC will fall pregnant each year. The fact that the instructions need following seems obvious, but mistakes can and do happen, for example:

**Women assume contraception is effective from the moment it is taken.** In fact, start of cover depends on when the COC is taken relative to the woman’s menstrual cycle. If it is started on the days one to five of women’s cycle (where day one is the first day of the woman’s period) and she has a cycle longer than 23 days, the contraceptive effect is immediate. However, if a woman starts taking a COC on any other day of her cycle or has a short menstrual cycle, she will need to take additional contraception precautions – condoms are the usual recommendation – for the first seven days of use.

**Missing pills.** While taking the odd tablet late or even forgetting altogether isn’t a problem, missing two or more can affect contraceptive cover.

Depending on where in the pack the gap has occurred, it might be necessary to take two tablets together, use additional contraceptive precautions for a week, start the next pack without the usual seven day break, or use emergency contraception. The patient information leaflet is the best place to look for advice.

**Activity five**

*Would you be able to obtain a PIL for someone who had lost or discarded theirs? Help is available from the EMC*

**Being poorly.** COCs may not be absorbed properly if the woman is sick within two hours of taking the product. Taking another one straightaway and then continuing with the normal COC dosing regimen is usually sufficient, but if the woman continues to be sick, she should use another form of contraception while she is unwell and for two days afterwards. The same goes for severe diarrhoea (six to eight watery stools in a 24 hour period).

As convenient as the COC is – just one tiny tablet taken at around the same time each day – it isn’t suitable for everyone.

Women who can’t take it include those aged 35 years or over who smoke or have done until recently, are very overweight, suffer from certain conditions such as severe migraines, breast cancer, longstanding or complicated diabetes, heart, liver or gallbladder disease, or who have experienced a blood clot in the past.

**Activity seven**

*COCs are associated with an increased risk of blood clots. Click here to understand the signs of both a deep vein thrombosis and pulmonary embolism*

COCs can also interact with other drugs, most notably medicines for epilepsy and HIV, the antibiotics rifampicin and rifabutin, and the herbal remedy St John’s wort. There are also risks associated with the COC, such as an increased chance of developing a blood clot and cancer of the cervix, breast and liver.

And of course, as it isn’t a barrier method of contraception, it offers no protection against sexually transmitted infections (STIs).

However, for most women, the advantages of taking the COC – which include the fact that it doesn’t interrupt sex and it usually makes periods lighter, more regular and less painful – far outweigh the risks. It can also have some health benefits, from reducing the risk of ovarian, uterine and colon cancer, fibroids, ovarian cysts and noncancerous breast disease, to protecting against pelvic inflammatory disease and reducing pre-menstrual symptoms and sometimes acne.

**Activity six**

*Women taking a COC might ask if they can take two packs without the usual break in order to skip a period, for example, if they are going on holiday. Is this OK? To check your understanding, look at the section entitled: Taking pill packs back-to-back*

The progesterone-only pill exerts its contraceptive effect by thickening cervical mucus and making the lining of the womb thinner. POPs containing progesterone in the form of desogestrel also inhibit ovulation. Many women who use POPs do so because they cannot take COCs, for example because they are over 35 years old and smoke, are
breastfeeding, have a history of blood clots, or experience side effects from oestrogen-containing medicines.

Much like COCs, POPs are over 99 per cent effective if taken correctly. However, there is less room for error: taking it more than three hours late (12 hours for desogestrel preparations) can affect the contraceptive effect.

Unlike most COCs, POPs are taken every day without a break between packs, and this can mean that periods become irregular – albeit often lighter – and many women experience spotting.

**Activity eight**

How would you counsel someone on POP dosing if it was the first time they had been prescribed it? Hint: think about setting up prompts such as a mobile phone reminder, or tying it into a routine daily activity, for example, brushing teeth.

Contraceptive cover is in place straightaway for women who start taking a POP on days one to five of their menstrual cycle, unless they have a very short cycle. Anyone who starts taking it on any other day of their cycle needs to take additional precautions for two days.

If a POP is taken more than three hours late, another form of contraception should be used for the following two days. For desogestrel-containing POPs, which have a 12-hour dosing window, additional precautions are required for seven days. The same rules apply for vomiting within two hours of taking a POP, and cases of severe diarrhoea.

Risks associated with POP use include an increased risk of ovarian cysts, though these are usually symptomless and resolve without treatment, a slightly higher chance of being diagnosed with breast cancer, and a lack of protection against STIs. POPs also interact with the same drugs as COCs.

**EHC**

In cases of unprotected sex and contraceptive failure, emergency contraception can help prevent pregnancy.

The most widely used is the morning-after pill, more accurately called emergency hormonal contraception as it contains progesterone or a progesterone inhibitor, both of which work by preventing or delaying ovulation.

There are two products available: one has to be taken within 72 hours of unprotected sex; the other within 120-hours. However, the sooner EHC is taken, the more effective it will be, though it is important to note that it is not as effective as taking a regular form of contraception. Side effects are not usually serious, but most commonly include abdominal pain, headache, irregular menstrual bleeding, nausea and tiredness.

**Activity nine**

Visit this [website](#) to find out about the effectiveness of EHC, including what to do if a woman is sick soon after taking it.

Much like other oral contraceptives, there are some individuals for whom EHC is not recommended and others in whom it is less likely to be effective.

It is also not suitable as a regular form of contraception, and taking it does not offer protection against pregnancy if the woman has unprotected intercourse on another occasion, even during the same menstrual cycle.
Tick the correct answer. If you need help, why not re-read the training?

Put your Knowledge To the test

1. The aim of contraception is to prevent pregnancy:
   a) True
   b) False?

2. Which of the following is true about combined oral contraceptives:
   a) They are sometimes known as the mini-pill
   b) They contain progesterone and
   c) Oestrogen
   d) They are all taken for 28 days?

3. Some COC preparations contain placebo tablets:
   a) True
   b) False?

4. Which of the following is not a mode of action for COCs:
   a) Makes the lining of the uterus thicker
   b) Prevents ovulation
   c) Thickens cervical mucus?

5. Which of the following patients should not take a COC:
   a) A 37-year-old woman with IBS
   b) A 25-year-old woman with a body mass index of 32
   c) A 34-year-old woman who quit smoking a decade ago?

6. COCs usually make periods heavier, more regular and less painful:
   a) True
   b) False?

7. The main mode of action of a POP is to inhibit ovulation:
   a) True
   b) False?

8. Contraceptive cover may be reduced if a woman on a POP:
   a) takes her tablet two hours later than usual
   b) starts taking the product on day four of her cycle
   c) has severe diarrhoea

9. Which of the following is not over 99 per cent effective if used correctly:
   a) COCs
   b) POPs
   c) EHC

10. EHC contains a synthetic form of the hormone oestrogen:
    a) True
    b) False

If you get at least eight questions right, you can download a CPD portfolio certificate for your line manager to sign.

Return to the main menu for this DEM to access the links to the answers and your downloadable certificate