



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

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Benefits of combined hormonal contraceptives (CHCs) continue to outweigh risks

Product information updated to help women make informed decisions about their choice of contraception

On 21 November 2013, the European Medicines Agency completed its review of combined hormonal contraceptives (CHCs), particularly of the risk of venous thromboembolism (VTE or blood clots in veins) associated with their use. The European Medicines Agency's Committee for Medicinal Products for Human Use (CHMP) concluded that the benefits of CHCs in preventing unwanted pregnancies continue to outweigh their risks, and that the well-known risk of VTE with all CHCs is small.

The review has reinforced the importance of ensuring that clear and up-to-date information is provided to women who use these medicines and to the healthcare professionals giving advice and clinical care.

The product information of CHCs has been updated to help women make informed decisions about their choice of contraception together with their healthcare professional. It is important that women are made aware of the risk of VTE and its signs and symptoms, and that doctors take into consideration a woman's individual risk factors when prescribing a contraceptive. Doctors should also consider how the risk of VTE with a particular CHC compares with other CHCs (see table below).

The review also looked at the risk of arterial thromboembolism (ATE, blood clots in arteries, which can potentially cause a stroke or heart attack). This risk is very low and there is no evidence for a difference in the level of risk between products depending on the type of progestogen.

The CHMP opinion, in agreement with the previous recommendation by the Pharmacovigilance Risk Assessment Committee (PRAC), was sent to the European Commission, which adopted on 16 January 2014 a legally binding decision to update the product information of all CHCs throughout the EU.

Information to patients

- This Europe-wide review looked at the benefits and risks of combined hormonal contraceptives (CHCs), particularly the risk of blood clots associated with these medicines. It confirmed that the benefits of CHCs outweigh the risk of blood clots, which has been known for many years and is very low.



- If you have been taking CHCs without any problem, there is no reason for you to stop taking them on the basis of this review. But it is important that you are aware of the risk of blood clots associated with these medicines, even though it is very low.
- The risk of blood clots in the veins varies between CHCs, depending on the type of progestogen (a hormone) they contain, and ranges from 5 to 12 cases of blood clots per 10,000 women who use them for a year (see table below). This compares with 2 cases of blood clots in the veins each year per 10,000 women who are not using CHCs.
- You should also be aware of the factors that increase your risk of a clot and be aware of how these may change over time. Risk factors include being very overweight, increasing age, having a member of your family who has had a blood clot at a relatively young age (e.g. below 50), having migraine or being immobilised for a long time (e.g. because of an illness or injury). Your risk of a blood clot is also higher in the first year of using a CHC.
- You should discuss with your doctor or nurse what is the most appropriate type of contraception for you.
- When taking CHCs, you should be alert for the signs and symptoms of blood clots, which may include severe pain or swelling in the legs, sudden unexplained breathlessness, rapid breathing or cough, chest pain, and weakness or numbness of the face, arm or leg. If you develop any of these signs and symptoms you should seek medical advice immediately.
- If you have any questions or concerns, speak with your doctor, pharmacist or nurse.

Information to healthcare professionals

- The EU-wide review of combined hormonal contraceptives (CHCs) has confirmed that the known risk of venous thromboembolism (VTE) with all low-dose CHCs (ethinylestradiol < 50 mcg) is small.
- Differences exist between CHCs in their risk of VTE depending on the type of progestogen they contain. Currently available data indicate that CHCs containing the progestogens levonorgestrel, norethisterone or norgestimate have the lowest risk of VTE (see table below).
- When prescribing a CHC, careful consideration should be given to the individual woman's current risk factors, particularly those for VTE, and the difference in risk of VTE between products. CHCs are contraindicated if a woman has one serious or multiple risk factors that put her at high risk of blood clots.
- There is no evidence for differences between low-dose CHCs in their risk of arterial thromboembolism (ATE).
- Because a woman's individual risk factors will change over time, there is a need to regularly re-assess the suitability of her contraceptive.
- It is also important to raise awareness of the signs and symptoms of VTE and ATE when prescribing a CHC.
- Healthcare professionals should always consider the possibility of a CHC-associated thromboembolism when presented with a woman who has symptoms.

Risk of developing a blood clot (VTE) in a year	
Women not using a combined hormonal pill/patch/ring and are not pregnant	About 2 out of 10,000 women
Women using a CHC containing levonorgestrel, norethisterone or norgestimate	About 5-7 out of 10,000 women
Women using a CHC containing etonogestrel or norelgestromin	About 6-12 out of 10,000 women
Women using a CHC containing drospirenone, gestodene or desogestrel	About 9-12 out of 10,000 women
Women using a CHC containing chlormadinone, dienogest or nomegestrol	Not yet known ¹

¹ Further studies are ongoing or planned to collect sufficient data to estimate the risk for these products.

More about the medicine

CHCs contain two types of hormones, an oestrogen and a progestogen. The review included all contraceptives containing low-dose oestrogen and the following progestogens: chlormadinone, desogestrel, dienogest, drospirenone, etonogestrel, gestodene, nomegestrol, norelgestromin and norgestimate. These are sometimes referred to as 'third generation' or 'fourth generation' contraceptives and are available as pills, skin patches and vaginal rings. During the review, the risk of VTE with these medicines was compared with that of CHCs containing levonorgestrel and norethisterone (also known as 'second generation' contraceptives).

The classification as 'second, third or fourth generation' is however not science-based and not standardised, and may differ between institutions and publications.

With the exception of Zoely (nomegestrol acetate/estradiol), Ioa (nomegestrol acetate/estradiol) and Evra (norelgestromin/ethinylestradiol), which have been authorised centrally through the EMA, all other combined contraceptives in the EU have been authorised via national procedures.

More about the procedure

The review of combined hormonal contraceptives was initiated in February 2013 at the request of France, under Article 31 of Directive 2001/83/EC.

A review of the data was first conducted by the Pharmacovigilance Risk Assessment Committee (PRAC), the Committee responsible for the evaluation of safety issues for human medicines, which made a set of recommendations. The PRAC recommendations were sent to the Committee for Medicinal Products for Human Use (CHMP), responsible for all questions concerning medicines for human use, which adopted the Agency's final opinion.

The CHMP opinion was forwarded to the European Commission, which issued a final decision on 16 January 2014.

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