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The Pill doesn't work unless it's taken according to the manufacturer's instructions – this information is in the leaflet that comes with every pack. The leaflet also gives advice about what to do if you miss a dose and other factors that might stop the Pill working properly.

## Three generations of the combined Pill

### First-generation Pills

When combined Pills first came out in the early 1960s, they contained high doses of oestrogen plus a progestogen. In the late 1960s, these high doses of oestrogen were blamed for increasing a woman's chances of getting a blood clot in her leg or lungs. Some women still need to take these Pills but, in general, it's best to use another type.

### Second-generation Pills

Because of the health risks with first-generation Pills, a second generation, containing less oestrogen, was introduced. Most of these contain the same types of progestogens as the first-generation Pills.

### Third-generation Pills

In the 1980s, drug manufacturers launched a third generation of Pills. These contain lower doses of oestrogen, like the second generation, but with new forms of progestogen. These progestogens may alter cholesterol levels. The manufacturers hoped this might help to prevent problems such as heart attacks but these benefits have not been seen in practice. Third-generation Pills cost much more than the others. See *Pill box* (right) for the combined Pills available.

### Pill box

Combined Pills currently available:

First generation  
Norinyl-I  
Ovran

Second generation  
BiNovum  
Brevinor  
Cilest  
Eugynon 30  
Loestrin 20  
Loestrin 30  
Logynon  
Logynon ED  
Microgynon 30  
Microgynon 30 ED  
Norimin  
Ovran 30  
Ovranette  
Ovysmen  
Synphase  
Trinordiol  
TriNovum

Third generation  
Femodene  
Femodene ED  
Femodette  
Marvelon  
Mercilon  
Minulet  
Triadene  
Tri-Minulet

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## Heart and circulation problems

With the Pill, like all medicines, there is a chance of side-effects. One important concern is that the combined Pill might increase your chance of getting an illness affecting your heart or circulation, such as a blood clot in a vein, high blood pressure, a stroke or a heart attack. In particular, taking the combined Pill might increase your risk of having a clot which could block a blood vessel (usually in the leg or lungs) and restrict the blood flow.

### Risk of blood clots

The evidence about the risk of blood clots comes from studying the medical records of large groups of women. It suggests that there is more risk with third-generation rather than second-generation Pills.

Over the course of a year, around 5 in 100,000 women will get a blood clot in her leg or lungs, even without taking the combined Pill. This shows that there is no such thing as 'no risk' for blood clots. But if 100,000 women take a second-generation Pill for a year, around 15 of them will get a clot. And of 100,000 woman on a third-generation Pill, about 25 of them will be affected. In other words, women on third-generation Pills are 5 times more likely to get a blood clot than women who aren't on any Pill.

All this may make the Pill sound dangerous, but it's crucial to realise that these risks are still very low. In fact, the risk of a blood clot while taking any Pill is far lower than during pregnancy – of 100,000 women who are pregnant about 60 will get a clot in their leg or lungs.



Swollen leg due to a blood clot

### Risk factors

Examples of other risk factors for heart and circulation illnesses:

A previous blood clot

Smoking

Family history of blood clots

High blood pressure

Being overweight

Certain types of migraine

Reduced mobility

Severe varicose veins

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## Is the Pill safe for you?

Whether or not you are on the Pill, there are other things about your health and lifestyle – called ‘risk factors’ – that might increase your risk of heart or circulation problems (see *Risk factors*, page 4). In general, the more risk factors you have, the greater your chance of getting illnesses such as a blood clot in a vein, a stroke or heart attack. And whatever your level of risk when not on the Pill, taking the combined Pill may increase it. You may be able to reduce your risk factors by, for example, giving up smoking or losing excess weight (see *Treatment Notes* on *When and how to lose weight*, January 2000).

On current evidence, third-generation Pills are more likely to cause blood clots in the leg or lungs than second-generation Pills, particularly if you have other risk factors. A decision about which Pill, if any, is safe for you can only be made once all your risk factors have been considered. If it is too risky for you to take any combined Pill, your GP or nurse can help you find an effective form of contraception that does suit you. For example, this might be a progestogen-only Pill.

## So, which Pill?

Your risk of heart and circulation problems is not the only thing to consider when choosing a Pill. Because some brands have different combinations and doses of hormones, they might have slightly different effects on you. For example, one brand of the Pill might give you headaches or breast tenderness, but another brand might not. You should discuss any concerns you have with your doctor or nurse because it is possible to switch Pills until you find one that suits you best. sign of

## Pill pros and cons

### Some of the effects of the combined Pill:

- ✓ Effective contraception
- ✓ Can make periods less painful and more regular, and may lessen premenstrual tension
- ✓ Reduces risk of cancer of the ovaries or womb lining
- ✗ Can cause headache, breast tenderness or make you feel sick
- ✗ Possible small increase in breast cancer risk, but the risk disappears by 10 years after stopping the Pill
- ✗ No protection from HIV or other infections

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Other pros and cons might be important too (see page 5). For example, the combined Pill protects against cancer of the ovaries or womb lining. Other research suggests that it might increase your chances of getting breast cancer, but more work is needed to confirm this.

## Conclusion

Before you start the combined contraceptive Pill, your doctor or nurse will want to find out about your health – particularly to see if you are at increased risk of heart or circulation illnesses. They may also encourage you to reduce health risks you have some control over – such as being overweight or a smoker.

The newer, third-generation Pills seem to increase the risk of blood clots in the leg or lungs more than the older, second-generation Pills, even in women who do not have other risk factors. Also, any supposed advantages on the heart and circulation of third-generation Pills have not been proved. So, for most women, a second-generation Pill is probably first choice.

## Further information

### Brook Helpline

☎ 020 7617 8000 [www.brook.org.uk](http://www.brook.org.uk)

### Family Planning Association

☎ 020 7837 4044 [www.fpa.org.uk](http://www.fpa.org.uk)

### NHS Direct

☎ 0845 46 47 [www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk)



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*Treatment Notes* contains general medical information that will not always apply to your child. Don't start, or stop, prescribed medicines without speaking to your doctor or pharmacist first.

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