Hormone Contraception and breast cancer

A guide for patients

Introduction

Over the past few years there has been considerable publicity about combined oral contraceptives (‘the pill’) and the risk of developing breast cancer. This has understandably caused concern among women taking the pill. This leaflet has been written to help women assess these risks.

‘The Pill’ – uses, benefits and risks

The combined oral contraceptive pill is a widely used and highly effective method of contraception. It is also used very successfully to treat both heavy periods and period pain.

In addition, use of the pill is known to reduce the risk of developing ovarian and endometrial cancers.

However, the pill is known to be associated with a number of side-effects and risks, including an increased risk of blood clots in the legs (deep venous thrombosis) and an increased risk of developing cervical cancer.

Breast cancer risk and ‘the pill’

All women are at risk of developing breast cancer.
Breast cancer is rare under the age of 40 but the risk of getting breast cancer increases as a woman gets older.
The evidence as to whether taking the pill increases the risk of breast cancer is confusing and contradictory.

A large study published in 1996 (Reference 1) found that users of the pill had a slightly increased risk of developing breast cancer compared with women who had never taken the pill. The study results showed that this increased risk was related to the length of time women took the pill. The increased risk decreased after stopping the pill and disappeared 10 years after stopping the pill. This means that if a woman takes the pill up to the age of 30 and then stops, her possible increased risk of developing breast cancer will have disappeared by the time she becomes 40. Her risk of developing breast cancer will then be the same as other 40 year old women who have never taken the pill.

This study also found that women who developed breast cancer while taking the pill tended to have smaller, less advanced cancers than those women who were not taking the pill.

This was a huge study (looking at data on 53,297 women with breast cancer and 100,239 women without breast cancer), which makes its findings more likely to be reliable. However, the total amount of hormones in ‘the pill’ at the time the study was conducted was considerably higher than the doses found in modern ‘pills’.

For this reason we cannot be sure that the risks found in this study would apply to women taking the pill now.

In addition, three further large studies (References 2, 3, & 4) have found no increased risk of developing breast cancer in women who were taking the pill or who had taken the pill in the past.

Although the results from these studies are reassuring, we are still unsure whether taking the pill increases a woman’s risk of developing breast cancer, although it seems likely that any increased risk is likely to be small.

The combined patch and ring have similar risks to the pill.

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### Family history of breast cancer and ‘The Pill’

For women with a strong family history of breast cancer, the limited information available suggests that using the pill may further increase their risk of developing breast cancer.

Two small studies (References 5 & 6), which looked at pill use by women known to carry a mutation of the breast cancer genes BRCA1 or BRCA2, have shown that pill
use in these women is associated with an increased risk of developing breast cancer.

We would therefore encourage women with a strong family history of breast cancer to discuss the risks and benefits of the pill with their doctor before starting it.

Progestogen - only contraception

Progestogen-only contraceptive methods comprise:

- The progestogen-only pill (the ‘mini’ pill)
- Progestogen-containing implants (Nexplanon)
- The contraceptive injection (Depo-Provera)
- The intra-uterine system (Mirena)

These methods of contraception are becoming increasingly popular as we encourage women to use long acting methods but we have less information about any possible increased risk of breast cancer associated with their use.

However, the 1996 study - which found an increased risk of breast cancer associated with use of the combined pill - found a similar increased risk of breast cancer with use of the progestogen-only pill or injectable contraception although numbers in the study were very small. As with the combined pill, this possible increased risk decreased after stopping the pill, disappearing 10 years after stopping the pill.

No information is available on the possible risk of breast cancer and use of contraceptive implants. However, the hormones used in the implants are similar to those found in the progestogen-only pill and the contraceptive injection, so any possible increased risk is likely to be similar.

We do have some evidence looking at use of the progestogen-containing intrauterine system ‘Mirena’ and this is reassuring that breast cancer risk is not increased. The dose of hormone within the Mirena is very low and it offers many other benefits. If a woman wishes to avoid hormones altogether she should consider using a copper intra-uterine device for contraception.

Conclusion

To summarise, we remain unsure whether using hormonal contraception increases a woman’s risk of developing breast cancer, but we can be reasonably confident that if there is an increased risk, this will have disappeared 10 years after stopping the hormonal contraception.
This is very reassuring for women without a strong family history of breast cancer taking hormonal contraception in their teens and twenties. This is because if they stop hormonal contraception in their early 30’s, their risk of developing breast cancer will have returned to normal when they reach their early 40’s, when breast cancer becomes more common.

For women who have a strong family history of breast cancer, the information available suggests that ‘pill’ use may further increase their risk of developing breast cancer.

All women, but especially those with a strong family history of breast cancer, should therefore carefully consider whether the benefits of taking the pill, such as reliable contraception and lighter, less painful periods, outweigh the possible risks.

References


