

Prevention of Infertility

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For most couples, who experience difficulty in getting pregnant, there is nothing that could have been done differently to prevent the circumstance arising. However for a small number there may be preventable factors that could be contributing to the problem.

Age

In the early 21st century, age is rapidly becoming the biggest preventable cause of failure to conceive. While at the age of 35, over 95 per cent of healthy couples will conceive within three years of trying, by the age of 38, that figure has dropped to 77 per cent. By the age of 41 less than half the healthy couples will conceive after three years of trying.

Pelvic infection

Past pelvic infection is commonly a factor that may be associated with ongoing difficulties in conceiving. Unfortunately severe tubal damage can sometimes result from slight infections with no apparent symptoms for the woman herself. While repeated exposure to sexually-transmissible infection increases this risk, many women with tubal damage have no history, of which they are aware, of exposure to risk of transmissible disease. Research has shown that in most cases of diagnosed infections, prompt treatment with effective antibiotics can be curative. However, the more episodes of infection, the greater the risk of subsequent problems.

Previous surgery

An important but probably uncommon cause of tubal damage is previous abdominal surgery. The diagnosis of acute appendicitis is the reason for exploratory surgery in the young female. Sometimes the symptoms are due to accidents of ovarian pathophysiology such as simple ovarian cysts. There can be a surgical temptation to remove such innocent cysts. However, this may result in long-term adhesions. This risk is now widely appreciated by surgeons and the more frequent use of minimally invasive surgery should substantially reduce this risk in the future.

Further important surgical aspects are the management of ectopic pregnancy and other conditions such as endometriosis which may demand emergency surgery with consideration of fertility prospects being a secondary condition to the safe management of the patient. Nowadays, many early ectopic pregnancies can be safely treated with a single dose of a drug, methotrexate, which can dissolve the ectopic with consequently less scarring. With the greater opportunities for treatment of infertility, there

has been a greater awareness of the risk of surgery and a greater appreciation by gynaecological surgeons of the importance of the long-term implications of the immediate surgery.

Previous pregnancies

Terminations of pregnancy are common as is a later difficulty in getting pregnant. Thus, both can often happen to the same woman by simple chance alone. Research findings are now quite clear that, in developed countries at least, an uncomplicated procedure of termination of pregnancy does NOT carry an increased increase in risk of subsequent infertility. This does again reflect the experience of trained surgeons and improved methods of instrumentation and technique at the termination procedure. Termination of pregnancy is unfortunately still a cause of tubal damage in women in countries where termination is still clandestine and performed under adverse conditions.

It is also relevant to note here that childbirth under the usual circumstances is rarely associated with infective consequences nor is the normal management of miscarriage.

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Both are times when the female genital tract is vulnerable to infection, but fortunately sequential conditions are uncommon although caesarean section is associated with a slight increase in subsequent difficulties in conceiving.

Diet and weight change

Many women with variation in their weight (either up or down) can experience problems with ovulation (release of the eggs). Excess weight is probably the most important induced cause of disturbed cycles and, as a consequence, ovulation disorders. Many women are quite sensitive to relatively minor gains or losses of weight. Fortunately, these conditions are able to be improved by the correct combination of diet and exercise. Women with abnormal bodyweight should normally ensure that the bodyweight is brought back to the normal range before starting medical fertility treatment.

Alcohol intake and other drugs

No association has been demonstrated between excessive female alcohol intake (considered as more than one to two drinks per day) and infertility although excessive alcohol consumption is known to

have adverse effects on the foetus. In contrast, excessive alcohol consumption in men is associated with diminished sperm function. Use of recreational drugs can affect ovarian and fallopian tube function but (perhaps, not surprisingly) there are very few data available about the effects on pregnancy rates in general.

Cigarette smoking

Both active and passive cigarette smoking are known to have a significant effect on both pregnancy rates and long-term ovarian function. Smokers are more likely to have a premature menopause and smoking is thus an important preventable cause of difficulty in conceiving. While cigarette smoking is known to have an adverse effect on sperm quality, there are no clear data on the effect of male smoking on conception rates in the partner.

Diet

Diet has only limited effect on fertility. However women who are significantly (>15 per cent) below their ideal body weight will have significant disruption of ovulation and consequently menstruation. Women who are obese with a body mass of more than 29 will take longer to conceive.

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