key points

SELECTED BY
Dr Peter Saul
GP, Wrexham and Associate GP Dean for North Wales

The main causes of infertility are female factor (anovulation, tubal damage, endometriosis and ovarian failure), male factor (low or absent numbers of motile sperm in the ejaculate, and erectile dysfunction), or unexplained infertility. More than 80% of couples will conceive within one year if the woman is aged under 40 and they have regular sexual intercourse. Of those who fail to conceive in the first year, around half will do so in the second year, giving a cumulative pregnancy rate > 90%.

A woman of reproductive age who has not conceived after a year of regular sexual intercourse, and has no known cause of infertility, should be offered referral for further clinical assessment and investigation with her partner. Women intending to become pregnant should be informed that dietary supplementation with folic acid 0.4 mg/day before conception and up to 12 weeks gestation reduces the risk of neural tube defects.

Women who have a BMI $\geq$ 30 are likely to take longer to conceive. Those with a BMI < 19 who have irregular or absent menstruation should be advised that putting on weight is likely to improve their chance of conception. The best test of ovulation is an appropriately timed mid-luteal serum progesterone level. Women with irregular or absent menstrual cycles should be offered a blood test to measure serum gonadotrophin levels (FSH and LH). Women with no known comorbidities should be screened for tubal occlusion. Those who are thought to have comorbidities should be offered laparoscopy and dye testing.

Unstimulated intrauterine insemination can be considered as a treatment option where people are unable, or would find it very difficult, to have vaginal intercourse. If the tubes are patent, but endometriosis is present in the pelvis, then surgical laparoscopic ablation or resection should be offered. If tubal damage or intra-uterine adhesions are diagnosed surgery to open the tube may be effective for mild tubal disease. Women with PCOS who have a BMI > 30 should be advised to lose weight since this alone may restore ovulation. Clomifene citrate or metformin can be used as first-line therapy, second-line treatments include combined treatment, laparoscopic ovarian drilling, or injected gonadotrophins. Women under 40, who have not conceived after two years of regular intercourse or 12 cycles of artificial insemination, where six or more are by IUI, should be offered three full cycles of IVF.

Sperm cryopreservation should be offered to men and adolescent boys who are preparing for medical treatment for cancer which is likely to make them infertile. Similarly, oocyte or embryo cryopreservation as appropriate during IVF should be offered to affected women or adolescent girls.