



# AMERICAN SOCIETY FOR REPRODUCTIVE MEDICINE

*Formerly The American Fertility Society*

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## PATIENT'S FACT SHEET EXERCISE, WEIGHT, AND FERTILITY

Couples with infertility often wonder if lifestyle habits might compromise their fertility. Two important lifestyle factors, **weight and exercise**, can affect fertility.

**Low weight or weight loss** can lead to a decrease in an important hormonal “message” that the brain sends to the ovaries in women and testes in men. This hormone, gonadotropin releasing hormone (GnRH), is produced in the part of the brain called the hypothalamus. The release of GnRH leads to the release of the hormonal messengers LH and FSH (the gonadotropins) by the pituitary gland. LH and FSH are critical for the development of eggs in the ovaries and sperm in the testes. The degree to which weight loss affects fertility will vary. In mild cases the ovaries may still produce and release eggs, but the lining of the uterus may not be ready to receive a fertilized egg because of inadequate ovarian hormone production. In more severe cases, ovulation does not occur, and menstrual cycles are irregular or absent. In men, low weight or weight loss may lead to decreased sperm function or sperm count. If low weight or weight loss has been identified as the cause of one’s infertility, the preferred treatment would be to stop losing weight or even to gain weight if needed. An alternate treatment is the use of medications. Drugs such as GnRH (Lutrepulse®, Factrel®) or gonadotropins (Pergonal®, Metrodin®, Humegon™) replace or eliminate the need for the missing message from the hypothalamus or pituitary and may restore fertility. However, the use of these drugs can be complicated, expensive, and can cause multiple pregnancies.

**Being overweight or obese** can affect the hormonal signals to the ovaries or testes. Increased weight can also increase insulin levels in women, which may cause the ovaries to overproduce male hormones and stop releasing eggs. Weight loss is the best plan of action, but drugs such as clomiphene (brand name) or gonadotropins can be used in overweight patients. It is important to make sure that glucose (blood sugar) levels in overweight patients are normal prior to attempting pregnancy and that specific metabolic causes of obesity are not present.

**Proper exercise** and diet are important for maintaining good health and proper weight. Extreme exercise can, however, lead to reduced sperm production in men and the cessation of ovulation in women by decreasing the brain message to the ovaries and testes. However, the amount of exercise must be very extensive; normal exercise will not affect fertility in most couples. It is impossible to know how much exercise for any one person is too much. Generally, running more than 10 miles per week is considered too much when trying to conceive. The most effective way to treat reproductive problems associated with excessive exercise is to decrease or modify the amount of exercise.