



Early Menopause Due to Premature and Unexpected Ovarian Failure

Menopause in women younger than 40 years of age is called **premature menopause**. If this happens spontaneously it is called **premature ovarian failure**. Premature ovarian failure affects about 1 in a 100 women. Around 8 per 100 women have premature menopause due to other causes such as chemotherapy or surgery. Menopause occurring between 40-45 years of age is called **early menopause**, affecting approximately 5% of women. Menopause can occur spontaneously or can be a result of chemotherapy (See AMS information sheet:- Early Menopause Due to Chemotherapy) or ovarian surgery. There is no evidence that early menopause is brought on by the use of oral contraceptives, fertility drugs or artificial hormones in the environment. However, smoking or a family history of early menopause is associated with an earlier onset of menopause. Diagnosis of early ovarian failure often has long term physical and psychological consequences, so women may need emotional support and ongoing medical follow-up.

What causes unexpected ovarian failure?

- In the majority of women with spontaneous premature ovarian failure, the cause is unexplained.
- Genetic causes include Turner's syndrome, Fragile X syndrome, and galactosaemia.
- Premature ovarian failure can be associated with autoimmune disorders. In this case, the immune system can attack and destroy the ovaries. Autoimmune thyroid disease is the most common association with early ovarian failure; however, adrenal, parathyroid, type 1 diabetes, pernicious anaemia and connective tissue disorders are also associated.

Diagnosis

- At present there is no specific predictor of early menopause although several biochemical markers are under investigation.
- In women with premature ovarian failure the diagnosis of early menopause may take several months. Evaluation of symptoms and blood tests will be required before a diagnosis of early menopause can be certain.
- Diagnosis can be stressful and difficult decisions have to be made. A woman should be comfortable with her doctor as several consultations may be needed to establish the best management of this condition and plan for the future.

What are the consequences?

- When the ovaries stop functioning, they not only stop producing eggs but also stop producing female hormones – oestrogen and progesterone. This leads to:
- Loss of fertility, which for many women is devastating.
- Loss of menstrual periods. This may be the first indicator of early ovarian failure. Sometimes in the lead-up, the time between periods becomes longer or erratic. However, there is no specific menstrual pattern which signals that early menopause is about to occur.
- Symptoms of oestrogen deficiency. These include hot flushes, mood change, sleep disturbance, dry vagina or poor lubrication during sexual arousal. These symptoms may occur even while the woman is still having menstrual periods. The onset of symptoms may occur gradually or suddenly especially after surgical removal of the ovaries (oophorectomy).
- Emotional turmoil. Women often feel confused, sad, jealous of other women's pregnancies or old before their time. Psychological counseling can ease this distress. Support from the woman's partner, family and friends is important.
- Long-term consequences include osteoporosis and, possibly, accelerated hardening of the arteries. Breast cancer risk may be reduced slightly.



Fertility issues:

- There is still a low chance (1-5% over a lifetime) of becoming pregnant spontaneously (unless a woman has had an oophorectomy) so if a woman does not want a baby she should use contraception even if diagnosed with early ovarian failure.
- Some women decide to opt for a childfree life, others may want to adopt or foster children.
- Some women try IVF or drugs to stimulate egg production but these have a low chance of success
- Most women with early ovarian failure who achieve pregnancy use eggs from another woman donated either anonymously or by a friend or relative. All donors are screened for transmissible diseases which reduces the risk but does not take it away completely. Another option is achieving pregnancy using embryos donated by another couple.

Hormone (replacement) therapy:

- Young women with early menopause are advised to take hormone (replacement) therapy (HT/HRT) to relieve the symptoms of oestrogen deficiency and prevent long term complications, Higher oestrogen doses may be required compared with older women. Current recommendations are to continue HT/HRT until the age of average menopause at 50 years.
- (See AMS information sheets: Menopause – Combined Hormone [Replacement] Therapy and Menopause- Oestrogen Only Therapy)
- Options include tablets, patches, gels or implants of oestrogen. Oestrogen alone therapy is used in women who have had a hysterectomy (see AMS information sheet: Menopause-Oestrogen Only Therapy). Oestrogen combined with a progestogen is required if a woman has not had a hysterectomy (See AMS Information sheet: Menopause – Combined Hormone [Replacement] Therapy). In addition, regular vaginal oestrogen can be used to improve comfort during sexual activity.
- The combined oral contraceptive pill can be used as a replacement hormone up to the age of 50 if the woman has no significant risk factors (such as a clotting tendency, past clots or is a current smoker and older than 34 years)
- Women on HT/HRT who become fatigued and have reduced libido (interest in sex) may have low levels of testosterone. However, low levels of testosterone present on blood testing may not be diagnostic and testosterone treatment in women is still being researched. There are no testosterone products for women approved by the Therapeutic Goods Administration. Women taking supplements of testosterone should be taking HT/HRT as there is very little information on the use of testosterone therapy alone in women. (See AMS information sheet: Low Libido and Testosterone Therapy)

Prevention of bone loss:

- Osteoporosis (thin bones which fracture easily) is common in women who have had oestrogen deficiency at a young age. Measurement of bone density is an important part of managing premature ovarian failure. It is important to check bone mineral density every two to four years, particularly if the woman decides against taking HT/HRT.
- A healthy lifestyle is important to maintain bone health. Women with early menopause should avoid smoking, engage in regular weight-bearing exercise, and ensure adequate dietary intake of calcium and vitamin D.
- If a woman suffers a bone fracture from osteoporosis, there are several proven therapies available to reduce her risk of further fractures



Prevention of cardiovascular disease:

- Years of oestrogen deficiency may accelerate a young woman's chance of developing hardening of the arteries, which may lead to a heart attack or stroke; however this is still controversial.
- Women with early menopause should avoid risk factors for vascular disease by not becoming overweight, by exercising regularly, avoiding smoking, controlling diabetes and high blood pressure, and preventing high levels of cholesterol and triglycerides (fats in the blood).

Further information:

- The Jean Hailes Foundation: <http://www.jeanhailes.org.au>
- ACCESS: Australia's National Infertility Network www.access.org.au
- The International Premature Ovarian Failure Association (IPOFA) website: www.pofsupport.org;
- The Daisy Network Premature Menopause Support Group: www.daisynetwork.org.uk;
- Fertile Hope website: <http://www.fertilehope.org>
- Turner Syndrome Association of Australia www.turnersyndrome.org.au
- Turner Syndrome Society of the United States: <http://www.turnersyndrome.org.au> ;
- <http://www.endocrineonline.org.uk/>

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