

Polycystic ovarian syndrome: diagnosis and treatment

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INTRODUCTION

Poly-cystic Ovarian Syndrome is the most common endocrine disorder in women during their childbearing years [1]. It is also known as hyperandrogenic anovulation or Stein-Leventhal syndrome. It is a lifelong health condition which continues after the reproductive age as well. It is caused by an imbalance of reproductive hormones. The imbalance in these hormones creates problems in the ovaries which result either in the non development of the egg or the non ovulation of the egg. Women with poly cystic ovarian syndrome may have excess androgen levels or prolonged/infrequent menstrual cycle [2]. This irregular menstrual cycle can lead to infertility (inability to get pregnant) or development of cysts in the ovaries. To be diagnosed with poly cystic ovarian syndrome, one should have at least two of these features. The features are as following:

- Irregular period: This means irregular ovulation
- Increase level of androgen (male reproductive hormone), which leads to physical signs such as excess body or facial hair
- Poly-cystic ovaries: In this, the ovaries become large and contain underdeveloped sacs in which eggs develop

After that the doctor might recommend a pelvic exam, some blood tests and an ultrasound. In case one is diagnosed with Poly-Cystic Ovarian Syndrome (PCOS), doctor might recommend additional tests such as screening for depression and anxiety, obstructive sleep apnea etc.

Some of the most common polycystic ovarian syndrome symptoms are [3]

- Irregular periods: This include infrequent period, heavy period, absent period or unpredictable periods
- Heavy bleeding: This is caused because of the building up of uterine lining for a long period of time
- Acne: Caused because of the excess of male hormone which makes the skin oily leading to breakouts
- Male pattern baldness: Causes thinning of hair and hair fall
- Weight gain: Most of the women with polycystic ovarian syndrome are either overweight or have obesity
- Hair growth: Growth of facial and body hair happens because of the male hormone

The exact cause of PCOS is unknown. But if left untreated, will lead to various complications in the body. Those can be,

- Infertility: 80% of anovulatory infertility cases is due to PCOS [4]
- Nonalcoholic steatohepatitis: Obesity and insulin resistance are the main factors of NAFLD in PCOS [5]
- Type 2 diabetes: PCOS is linked with high level of insulin in blood, which results in type 2 diabetes
- Sleep apnea: A respiratory disorder in which a person experiences

pauses in breathing [6]

- Depression, anxiety and eating disorders
- Abnormal uterine bleeding
- Cancer of the uterine lining: PCOS increases a woman's chances of developing endometrial cancer [7]

Although there is no cure for PCOS, treatment aims to manage the symptoms that a person is experiencing. There are various therapy alternatives that are indicated, including:

- Hormones and menstruation can be regulated with birth control tablets
- Diabetes medication: If necessary, these aids in the management of diabetes
- Fertility drugs such clomiphene (clomid), a combination of clomiphene and metformin or injectable gonadotropins treatments, may be used if pregnancy is desired
- Fertility treatment: In this, inseminations or IVF are included
- Spironolactone/eflornithine for reduction in excessive hair growth

Because of the reproductive, metabolic and oncological issues that are likely related with PCOS, it should be recognised and treated as early as puberty. The best way to prevent PCOS is to eat well and have a healthy lifestyle.

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