

 $Balancing \\ Act$

There's a major health problem on our radar, and it's one that could explain a whole host of other issues women are experiencing on a daily basis. We decided it's time we figured out what exactly Polcystic Ovarian Syndrome is—and why you need to get tested for it, pronto.

By Yi-Hwa Hanna

Just a quick Google search of the term "Polycystic Ovarian Syndrome" calls forth a list of words that can strike fear into the hearts of most women: Acne. Obesity. Infertility. Irregular periods. Hormonal imbalance. Excessive body hair. Weight gain.

> An endocrine disorder that affects five to 10 percent of women of reproductive age, Polycistic Ovarian Syndrome or PCOS-also known as Polycystic Ovary Syndrome, Hyperandrogenic Anovulation or Stein-Leventhal Syndrome -is also the most common cause of female infertility, with the Middle East appearing to be no exception.

According to a study by the Dubai Gynaecology & Fertility Center, 50 of their attending patients had been diagnosed with the disorder, while a separate study by Conceive Gynaecology & Fertility Hospital found that among their patients, 63 percent had PCOS. Figures from the U.S. Department of Health and Human Services' Office on Women's Health show that in the United States, as many as five million women may be affected by the condition, while the UK National Health Service estimates that one in every five women in the United Kingdom has polycystic ovaries. Infertility is just one of the issues caused by PCOS-it can also affect anything from a woman's menstrual cycle and hormones to her heart, blood vessels and appearance.

So what exactly is Polycystic Ovarian Syndrome? Simply put, it's a condition in which our hormones are out of



balance. Before ovulation occurs-normally once a month, where an egg is released into a Fallopian tube, leading into the uterus—our eggs develop within a follicle. A slight swelling in the ovary, several of these follicles begin to develop each month, with only one resulting in full development and going on to ovulate. In addition to the female hormones of oestrogen and progesterone, our ovaries also produce small amounts of male hormones or androgens. such as testosterone. Women with PCOS produce slightly higher amounts of androgens, altering the regular balance of hormones within the ovaries. As a result of the syndrome, many women with PCOS suffer from numerous cysts in the ovaries-small, pearl-sized cysts that are filled with fluid and immature eggs, from undeveloped follicles.

Not all women with PCOS exhibit ovarian cysts, however, and with the symptoms each woman may experience from the hormonal imbalance potentially varying so much from patient to patient, the condition can be extremely difficult to diagnose. With so many subtleties in both the diagnosis and symptoms exhibited from person to person, it's little wonder that it's so tough to pinpoint exactly how many women suffer from PCOS worldwide.

According to the Rotterdam criteria to diagnose Polycystic Ovarian Syndrome, two of the following three criteria are required: Oligo/anovulation -a menstrual cycle in which the ovaries do not release an egg; Hyperandrogenism-an

excess of androgens, or male sex hormones; or evidence of polycystic ovaries, typically shown via an ultrasound scan. "A woman is diagnosed with polycystic ovaries (as opposed to PCOS) if she has 12 or more follicles in at least one ovary-measuring 2-9mm in diameter—or a total ovarian volume greater than 10cm3," explains Dr. Anselma Ferrao, a Consultant Obstetrician and Gynaecologist, Lactation Consultant, and Medical Director of BrightPoint Women's Hospital.

SYMPTOMS AND SIDE-EFFECTS

The symptoms of PCOS seem to be endless, and include menstrual irregularities; hirsutism (excess body hair) anywhere from the upper lip to chin area, to the skin around our nipples and on the lower abdomen; acne; male-pattern hair loss; oilier skin; dandruff; obesity and weight gain that's typically around the waist; skin tags (excess flaps of skin in the underarm or neck area); anxiety; depression; infertility; increased risk of miscarriage; acanthosis nigricans (a skin pigmentation disorder that results in dark patches of skin with a thick, velvety texture); and sleep apnea (interrupted

or fitful sleep caused by the pause of breath while asleep). Many of the side-effects are related, making them harder to isolate—the physical changes caused by PCOS can lead to increased anxiety, depression and low self-esteem, while the increased weight gain can lead to obesity. Research has also shown a direct link between obesity and sleep apnea, making the symptoms seem like an endless Catch-22 cycle.

Hormonal imbalances can mess with our bodies in more ways than the physical or psychological discomfort, too -if left untreated, PCOS can lead to a range of other lifethreatening health concerns, such as increased risk of developing diabetes, heart attacks, high blood pressure and higher levels of LDL cholesterol (aka "bad" cholesterol). "PCOS makes it more difficult for the body to use the hormone insulin, which normally helps convert sugars and starches from foods in to energy. This conditioncalled insulin resistance-can cause insulin and sugar to build up in the bloodstream. High insulin levels increase the production of male hormones called androgens. Because the weight gain is triggered by male hormones,

it is typically in the abdomen; that is where men tend to carry weight, and that is why women with PCOS carry more weight around the abdomen," explains Dr. Hiam Ahmed Harfoush, a Specialist of Obstetrics and Gynaecology at Burjeel Hospital.

"Women with PCOS are also at risk for endometrial cancer. Irregular menstrual periods and the lack of ovulation can cause women to produce the hormone oestrogen, but not the hormone progesterone. Progesterone causes the endometrium—the lining of the womb-to shed each month as a menstrual period. Without progesterone, the endometrium becomes thick, which can cause heavy or irregular bleeding. Over time, this can lead to endometrial hyperplasia—when the lining grows too much-and cancer," adds Dr. Maria Nikolopoulou. a Specialist Obstetrician and Gynaecologist at AMC Medical Center, Dubai. Recent studies have found that more than 50 percent of women with PCOS will have either diabetes or pre-diabetes (impaired glucose tolerance) before the age of 40, while the risk of heart attack is four to seven times higher in women with PCOS than women of the same age who don't suffer from the condition.



TRYING TO CONCEIVE

When it comes to fertility, it's these very same male hormones that are throwing our periods out of whack that can also affect our ability to ovulate regularly and, in turn, have children as easily. "When you have PCOS, the excessive male hormones that your body is creating can interfere with the production of the female hormones that your body needs in order to ovulate. Because your body is not ovulating, progesterone is not being produced," says Dr. Harfoush. PCOS doesn't necessarily have to stop you from conceiving a child,

Healthy Dose

though: "While untreated PCOS will definitely have an impact on your ability to become pregnant, there are steps you can take to help your body conceive," he adds, explaining that for starters, weight loss—even by five percent—can help you improve your hormone imbalances and have a significant impact on your body's ability to conceive.

INTIMATE ISSUES

Another unfortunate potential side-effect of PCOS? A poor sex life. "One little-mentioned issue that can affect women with PCOS is poor sexual health and sexual dysfunction. [Many] women with PCOS have reported that this condition impacts their sexual relationships and creates less satisfaction," Dr. Nikolopoulou says, explaining that the aesthetic side-effects of PCOS can create diminished self-esteem, which in turn lessens sexual confidence and ease of arousal, while poor cardiovascular health can also cause sexual dysfunction.

"[Another] issue [that can be] associated with PCOS is painful intercourse. Called dyspareunia, it can be very distressing to have pain during intercourse. Most women will experience painful sex at some time in their life, and it is safe to ignore an isolated incidence. But if you start having painful intercourse on a regular basis, you need to pursue relief because it could indicate that there is a more serious underlying concern," she adds. In other words, if your sex life is starting to go pear-shaped, it's in both yours and your hubby's interests to find out why—for both your own health and the health of your intimate relationship.

A REGIONAL CONCERN

In recent years, studies have found a prevalence of PCOS in the Middle East—and the GCC in particular—and worryingly, it seems to be on the rise.

"The incidence of Polycystic Ovarian Syndrome in a multitude of studies has ranged from as low as 10 percent or as high as 21 percent of the female population in the UAE and the Middle East. Reasons for this may be attributed to the often luxurious, over-indulgent and

sedentary lifestyle that dominates in the region. The relationship between PCOS and insulin resistance is particularly important here in the UAE, where one in five of the female population suffers from Type 2 Diabetes and other metabolic syndromes," Dr. Ferrao says. Dr. Pankaj Shrivastav, Director and Founder of Conceive, the Gynaecology & Fertility Hospital, agrees, suggesting the large expatriate population as another potential explanation: "Of [the UAE's expat population], a majority is occupied by Gulf Arab women and South Asian women, in whom there is already a high genetic

predisposition of Diabetes and insulin resistance. To some extent, PCOS is a misnomer because the basic problem is not present in the ovary; it's the insulin resistance predominantly, which starts off a chain of events that leads to the typical ovarian picture and the symptoms of excessive androgens, which are a hallmark of PCOS. Add to that the fact that many women [here] are working long hours and often grab easily-available and largely unhealthy fast food, in contrast to healthy wholesome meals, all in all [we have a recipe] for developing Polycystic Ovarian Syndrome," Dr. Shrivastav explains.

Genetics also play their role
—while there isn't yet one set
of predetermined causes, it's
largely seen as a hereditary
problem. "No one is quite sure

what causes PCOS, and it's likely to be the result of a number of both genetic (inherited) as well as environmental factors.

Women with PCOS often have a mother or sister with this condition," says Dr. Harfoush. Without a cause to target, it only makes sense then that there is, unfortunately, no cure for the condition as yet.

SIMPLE SOLUTIONS

Yet not all is lost: "While there is no cure for PCOS, controlling it lowers your risks of infertility, miscarriages, diabetes, heart disease and uterine cancers. You can help manage it by eating healthily and exercising to keep your weight at a healthy level. Even a 10 percent loss in body weight can restore a normal period and make your cycle





more regular," Dr. Ferrao says. She also advises considering quitting, if you're a smoker: "Women who smoke have higher levels of androgens than women who don't. It also increases your risk of heart disease," she explains.

HELP AT HAND

In addition to leading a healthy lifestyle, there are a number of other steps we can take to help control some of the sideeffects of Polycystic Ovarian Syndrome, According to Dr. Nikolopoulou, for women who actively don't want to become pregnant, birth control pills can help control menstrual cycles, reduce male hormone levels and help to clear acne-although it's important to remember that if the pill is stopped, the cycle will once again become abnormal.

"Women may also think about taking a pill that only has progesterone to control the menstrual cycle and reduce the risk of endometrial cancer. But progesterone alone does not help reduce acne and hair growth," she says. While the



prescription drug Metformin (Glucophage)-which is used to treat Type 2 Diabetes by affecting the way insulin controls blood glucose and lowering testosterone production-has been found to help with some symptoms of PCOS, it hasn't been approved by the United States Food and Drug Administration (FDA) for this use.

It doesn't, however, cause a person to become diabetic, and recent research has shown it to have other positive effects, such as lowered body mass and

improved cholesterol levels, Dr. Nikopoulou says. If pregnancy is a concern, since lack of ovulation is usually the reason for fertility problems in PCOS, some fertility medications that stimulate ovulation can help women with the condition to become pregnant. Anti-androgen medication-often combined with birth control pills - may help reduce hair growth and clear acne, but should not be taken by women hoping to become pregnant, she adds. As with any medication, it's

always wise to discuss this with your doctor and rule out other options before embarking on any programme, even if it's suggested by a professional.

KNOWLEDGE IS KEY

Ultimately, the first step in being able to treat PCOS is getting tested. "The important thing is to make a diagnosis, and once that's done, it's very important to then educate the woman so that she understands the condition from the inside out, and is aware of the risks that come with it. If a woman suspects she has PCOS, don't leave it to Dr. Google," Dr. Shrivastav says. If you have at least two of the symptoms, Dr. Nikopoulou advises seeing your GP or Gynaecologist straight away, since initial testing can be easy and inexpensive—and can save you from facing more serious health issues down the line. If you're still unsure, Dr. Shrivastav advises seeing a Reproductive Endocrinologist and/or a Fertility Specialist.

"The good thing about Polycystic Ovarian Syndrome is that it can easily be managed a woman herself. [While] as of now there isn't [a cure], the disorder can definitely be controlled and I keep reinforcing this to my patients in the hope that that the knowledge will empower them and help them to turn their lives around from a health perspective," he says. ■

