THE PCOS SOCIETY INDIA

PANDORA

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Welcoming....

Our Fellows



Dr. Rama Vaidya
India



Prof. Anuja Dokras
PENN University,USA



Prof. Robert Norman
Monash University, Australia



Prof. Joop Laven
Erasmus MC,Netherlands

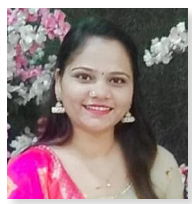
Our Team



Rochelle Lobo
Administrative Assistant



Dr Priyanka Gawai
Manager
CSR Project, Vijayeta



Komal Bhekre
Accounts & Finance Executive
The PCOS Society



Sneha Choksi
Accountant & Compliance Manager

Our New Patrons



Dr. Rajini Muthinen
Gynaecologist



Dr Sameera Aluri
Gynaecologist

Our New Life Members

Dr. Pravinkumar Dudhat	Gynaecologist
Dr. Rachana Deshpande (Shah)	Gynaecologist
Dr. Soni Kumari	Gynaecologist
Dr. Puja Kumari	Gynaecologist
Dr. Ranjit Inamdar	Gynaecologist
Dr. Uthra Duraikannan	Gynaecologist
Dr. Sumeetkaur Mehta	Gynaecologist
Dr. Salila Kumari M S	Gynaecologist
Ms. Apoorva Jain	Biotechnologist

Our New Associate Members

Ms. Nirusha Boddeda	Home Science Graduate
Mr. Raghu Nataraj	Molecular Biologist



Readers Feedback

We value your feedback on our Pandora newsletter and are eager to hear your thoughts and suggestions. Your insights are essential as we strive to enhance our content and engagement. Please take a moment to share your feedback. Your input is greatly appreciated!

Feedback Link: https://bit.ly/4gpxzpF

Scan to give your Feedback

JOIN THE PCOS SOCIETY OF INDIA: ELEVATE YOUR PROFESSIONAL JOURNEY!

Calling all Doctors! Enhance your expertise and make a significant impact in the field of PCOS management by joining the PCOS Society of India. Our membership offers numerous benefits to support your professional growth and connect you with leading experts.

Why Become a Member?

Reduced Fees: Enjoy discounts on all academic activities and conferences.

Certification Opportunities: Receive certificates for specialized courses on our website.

Fabulous Prizes: Win amazing prizes in our Live Quiz.

Free Access: Complimentary access to all recorded webinars and latest conference lectures.

Faculty Participation: Opportunity to present at our Annual Conference.

Newsletter Contributions: Share your insights and research.

Leadership Roles: Join the Managing Committee of the Society.

Networking: Connect with national and international speakers at our events.

Don't Miss Out!

Join Us Today and be part of a community dedicated to advancing PCOS management.

Scan to Register

Avail of the old membership rates. Rates to be revised from April'25



Link for Membership: https://www.pcosindia.org/membership.php



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This issue has been designed by P. Vel Kumar

Editorial



Dr. Duru Shah
MD, FRCOG, FCPS, FICS, FICOG, FICMCH, DGO, DFP
Director, Gynaecworld
The Center for Women's Health & Fertility, Mumbai
Founder President, The PCOS Society, India
Chief Editor, Pandora

Dear Friends,

It's been a long season of holidays and festivities in India, just as it has been every single year between August and October! Then came the season of elections, cricket matches, conferences, and more; there never has been a dull moment!

We have taken a back seat at the PCOS Society of India during this period. With many of our colleagues traveling to conferences, glued to their television sets, and holidaying, it's been a time at the Society Office when we are taking stock of all our activities, creating reports, checking on accounts, and updating our Minutes!

We have been super active through the **"Vijayeta Project,"** through which we have been actively engaging with women in Society, talking to them, both physically and digitally, updating them on PCOS, identifying the ones whom we suspect have PCOS, and guiding them to see their doctors! . Our analysis has thrown up startling results, almost 1 out of 4/5 women are likely to be having PCOS! We are happy to state that the awareness on the subject has been increased from 51% to 93% through our efforts. This is truly a preventive health program and during the next financial year, we hope to make it even more robust. Our Social Media channels are buzzing with information, check them out on Facebook, Instagram, and YouTube, we have been able to reach out to over 80,000 women digitally and still counting!

Check out our **"Proud PCOS Champions"** on our website https://www.pcosindia.org/csr-project-vijayeta.php. They have been doing a great job! We invite all PCOS Society members to be a part of our adventure, volunteer for this Social program, and become a PCOS Champion, and receive a beautiful trophy if you volunteer for 3 or more of our Vijayeta sessions as a speaker!

We celebrated the **International PCOS Month in Pune**, held at the "O" Hotel, with a four-hour fantastic program. Check out the details on the Centrespread of this Issue on Page 6&7. On the academic front, we organized **W3 webinars, E3 Seminars** from October onwards after the fantastic Conference we had in June 2024 in Mumbai in collaboration with The Mumbai Obstetric & Gynecological Society, which was covered in our previous issue.

This Issue has a wonderful Review on **The relationship between Hypothyroidism and PCOS** by Prof. Clare Boothroyd, President of ASPIRE, a must read to understand the relationship between PCOS and Hypothyroidism. We also have **An Indian Expert Group Review of Acanthosis Nigricans with Recommendations for Early Detection and Timely Management** created by The PCOS Society, India's special interest group on Dermatology, and published in JAPI in Jun'24. The link for the full text is added. Please go through the entire Recommendations, it is an eye-opener. In recognition of World Mental Health Day, observed on October 10th, we have compiled an article exploring the impact of PCOS on mental health on Pg 10.

Happy Reading and a big thank you to all those who have made PANDORA possible!!

Wishing you a Happy New Year in advance, see you next year!

Dr. Duru Shah
Chief Editor, Pandora
Founder President, The PCOS Society

IMPACT Course

Course Directors



Dr. Duru Shah
MD, FRCOG. Director, Gynaecworld The Center for Women's Health & Fertility, Mumbai, Founder President, The PCOS Society, India



Dr. Jagmeet Madan
Eminent Nutritionist Principal, SVT College of Home Science (Empowered Autonomous Status) SNDTWU, Mumbai

Course Co-ordinators



Ms. Ruby Sound
Consulting Nutritionist Managing Committee Member The PCOS Society of India



Dr. Nisha Bellare
Consulting Nutritionist Assistant Professor, SVT College of Home Science (Autonomous Status), SNDTWU, Mumbai

PCOS is a complex endocrine disorder that impacts millions of women globally. The International evidence-based guideline for the assessment and management of PCOS 2023 highlights that healthy eating and physical activity should be recommended for all women with PCOS to optimise general health, quality of life, body composition, and weight management. Nutrition is key in managing PCOS symptoms, as dietary choices directly impact the body's hormone levels, metabolic health, and inflammatory response.

A well-planned diet can help stabilize blood sugar levels, reduce insulin resistance, and decrease inflammation. Diets rich in fiber, lean proteins, and complex carbohydrates, such as whole grains, legumes, vegetables, and fruits, help prevent rapid spikes in blood sugar. Consuming anti-inflammatory foods like leafy greens, berries, and nuts can also help lower inflammation. Meanwhile, reducing the intake of refined sugars and processed foods is essential, as these foods can contribute to insulin resistance and weight gain.

Certain foods should be avoided to better manage PCOS. Refined carbohydrates like white bread, pastries, and sugary drinks can spike blood sugar levels and worsen insulin resistance. High-fat processed meats, fried foods, and trans fats contribute to inflammation and hormonal imbalance. Dairy, in some cases, may aggravate acne and hormonal disruptions in sensitive individuals. Caffeinated and artificially sweetened beverages can also interfere with hormonal health and should be limited.

Proper nutrient intake can also help with symptoms, such as acne, hair loss, and mood swings. For example, omega-3 fatty acids (flaxseeds, chia seeds, and walnuts) and antioxidants support skin health, while B vitamins are beneficial for hormone regulation and energy.

For those seeking an in-depth understanding of PCOS and its nutritional management, the **45-hour self-paced**, asynchronous online course**, Interdisciplinary Medical and Nutrition Management of PCOS (IMPACT),** offers a comprehensive guide. This course is a collaborative effort by the PCOS Society of India and SVT College of Home Science (Empowered Autonomous Status, SNDTWU Juhu, Mumbai). It provides participants with the latest insights and practical approaches to PCOS management from both medical and nutritional perspectives. The course covers essential topics such as insulin resistance, hormonal balance, weight management, and the role of personalized nutrition in PCOS. Ideal for both healthcare professionals and individuals interested in understanding PCOS, this course provides practical tools and the latest evidence-based information.

CERTIFICATE COURSE
impact

Interdisciplinary Management (of) PCOS
Advanced Certification Course Created by
The PCOS Society of India in collaboration with Sir Vithaldas Thackersey College of Home Science SNDT Women's University - Juhu, Mumbai

Why Choose IMPACT?

Learn from the Best: From eminent gynaecologists, endocrinologists, dermatologists, endocrinologists, and nutritionists.

Online Certificate Course: Latest online evidence-based lectures and online assessment

Flexible, Self-Paced Learning: 45-hour online course, complete at your own pace within 6 months.

Interactive Learning: Engage in case study discussions, designed to provide practical, real-world applications.

Official Certification: Receive a certificate from PCOS Society India & SVT University upon completion.

Course Highlights:

Cutting-Edge Medical Insights: 21 lectures covering topics from diagnosis to advanced treatments of PCOS medical management from the PCOS Society, India.

Nutritional Mastery: 14 lectures covering Medical Nutrition Therapy and dietary strategies.

Integrated Care Approach: 10 Case discussions with Medical & Nutrition Experts discussing various scenarios.

Who Should Enroll?

Medical Practitioners: Gynaecologists, Endocrinologists, Diabetologists, Dermatologists, Physicians, Family Physicians, and allied health professionals.

Nutritionists: With a background in Nutrition & Dietetics.

Course Fees
INR Rs 10,000
(Including GST)

For more information contact us at courseimpact2024@gmail.com

Registrations Now Open! Register Today!

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For the 1st time in India
Breakthrough treatment for PCOS
QurePCO
PCOS Ease, Nature's Breeze

Bioactive Trio for PCOS Management
Synergistic Formula for Androgen Modulation
Powerhouse for Androgen Balance

Introducing QurePCO - A Breakthrough Treatment for PCOS Patients in India

*We are thrilled to announce the launch of QurePCO, a revolutionary new drug specifically designed to manage **hyperandrogenism** and control the characteristics of Polycystic Ovary Syndrome (PCOS) in patients across India. Developed by Bellafem, QurePCO marks a significant advancement in the treatment options available for those affected by this condition.*

Stay tuned for more updates and information about QurePCO as we embark on this exciting new chapter in PCOS management!

For more information, please visit our website- www.bellafem.in or contact our field staff.

Together, let's redefine the future of PCOS treatment!



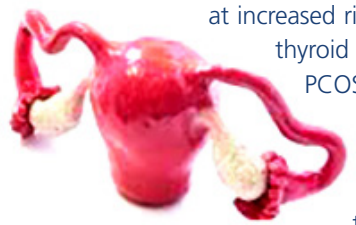
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FRACP FRANZCOG CREI GAICD
Board Certified Fertility Specialist and Endocrinologist
Medical Director Care Fertility,
President Asia Pacific Initiative in Reproduction (ASPIRE)

The relationship between Hypothyroidism and PCOS

In 2018 a review of the meta-analyses on the association of diseases with PCOS noted the paucity of data relating two common endocrine conditions in women – PCOS and Hypothyroidism (HT) (Gilbert, Tay et al. 2018). Over the ensuing years that evidence gap has changed.

PCOS affects 9-20% of the female population of reproductive age. HT affects 6-9.5% of women of reproductive age, is predominantly an autoimmune condition, and is affected by iodine intake, titers of anti-thyroid antibodies, the presence of a goiter, and increasing age. Inevitably when the two conditions occur in the same woman, it is not unreasonable in clinical practice, to attribute concomitant diagnoses to "common diseases occurring commonly". Hopefully, this synopsis presented will change that clinical opinion.





Women with PCOS have an increased risk of thyroid disease

The first convincing evidence of an association between PCOS and thyroid disease came from a cohort study conducted in Denmark linking disease registries and comparing index cases of PCOS in 19,622 women with 54,757 controls, following the cohort for a mean of 11 years (range 6.9-16 years) and recording the development of thyroid disease in the cohort (Glintborg, Rubin et al. 2019). The investigators reported an increase in all types of thyroid disease in the women with PCOS compared to controls – iodine-related thyroid disease, hypothyroidism, goitre, thyrotoxicosis, thyroiditis, and post-partum thyroiditis. However, as is the case, in cohort studies, confounding biases needed to be addressed, and it was noted that women with PCOS used more anti-diabetic agents, more oral contraceptives and accessed more fertility treatments. Prior to this study only small case-control or cohort studies had been conducted with conflicting outcomes but a meta-analysis of observational studies had shown **an increased risk of subclinical hypothyroidism in women with PCOS** (Ding, Yang et al. 2018). The Danish study was the sentinel game changer. Since the Danish study was published, there have been numerous small and medium-sized studies in different countries showing correlations of the same magnitude, and reviews bringing these observational studies together seem consistent in their findings(Kirkegaard, Uldall Torp et al. 2024). The association is present, probably not causal but PCOS and HT are related and may influence each other.

Women with autoimmune thyroid disease have increased risk of being diagnosed with PCOS

Reviewing the association between PCOS and HT from the reverse perspective was reported in a cohort study performed in Taiwan(Ho, Chen et al. 2020). Of 6731 women with autoimmune thyroid disease compared to 26,924 controls, the investigators showed that **if women had autoimmune thyroid disease, they were more likely to be diagnosed with PCOS** – adjusted hazard ratio of 1.39 (95% confidence interval =1.07-1.71). This added further support to an association between these two common diseases.

What is the pathological basis of the observed connection between thyroid disease and PCOS?

A number of pathophysiological mechanisms have been proposed: shared genetic propensity to both diseases, hyperinsulinemia (which may be environmentally induced, genetically based, or both), inflammation, epigenetic influences and/or by the effect on binding globulins (which for example may occur with the use of the combined oral contraceptive pill) (Batog, Doloto et al. 2023), (Fan, Ren et al. 2023), (Zeber-Lubecka and Hennig 2021). Another speculated but unproven and relatively under-investigated area is the effect of endocrine disrupters.

What are the clinical implications of this association?

Both conditions are associated with **an increased risk of metabolic syndrome – hypertension, obesity, dyslipidemia, and insulin resistance. Thyroxine replacement in HT mitigates these metabolic manifestations but often not completely in women with PCOS** (Palomba, Colombo et al. 2023).The metabolic syndrome in PCOS has not been associated with an increase in cardiovascular disease though as clinicians we recognize having both these diseases may place these women at increased risk. It does mean, in my opinion, that testing of thyroid function is part of appropriate management of PCOS though international guidelines have not stated this to date. Some authorities require that for the diagnosis of PCOS, thyroid dysfunction must be excluded but are silent on monitoring over the lifespan. Once a woman is diagnosed with PCOS, whether she is screened for thyroid disease at regular intervals is uncertain. We know from the Whickham study **that if a women has a goitre and positive antithyroid antibodies her progression to HT is 3-4% per year** (Vanderpump, Tunbridge et al. 1995).

If a woman is diagnosed with HT, screening for PCOS is relatively easy on clinical grounds- evaluation of the natural menstrual cycle and hyperandrogenism are good starting points. Whether all women with treated hypothyroidism should have a pelvic ultrasound scan is uncertain and at this time, in my opinion, not necessary unless indicated on other clinical grounds.

The time at which testing of thyroid function is important is when a woman with PCOS becomes pregnant. The increased risk of thyroid dysfunction in women with PCOS is present early, at or before the time of their first pregnancy, and therefore warrants testing during pregnancy. This will allow the detection and treatment of HT in pregnancy and avoid some of the adverse effects of untreated HT in pregnancy.

References and further reading:

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Continued on page 9

Celebrating International PCOS Month: Let's Talk



Inauguration Ceremony



The PCOS Society of India celebrated the International PCOS Month by organizing a 4-hour live session called **"Let's Talk"** on 28th September 2024 at O Hotel Pune. The program was aimed to educate women and raise awareness about PCOS, which successfully reached out to over **170 + women** physically **and 220 women digitally,** providing valuable insight into PCOS management and lifestyle modification with emotional support. The program was held under the Project "Vijayeta….the Winner" supported by Philips ,India.

The traditional lamp lighting was followed by a welcome by the President, Dr Duru Shah followed by an inspiring talk on PCOS and how it affects women. A Welcome address by **Mr. Sharad Godse from Philips Healthcare Innovative Centre** followed this.

A panel discussion on **"Unravelling the Puzzle of PCOS"** was moderated by Dr Asha Gokhale with experts from the various disciplines of medicine. This was followed by queries from the audience which were very patiently and beautifully responded to by the experts.

This was followed by a very apt skit on PCOS presented by resident doctors from Deenanath Mangeshkar Hospital which was truly appreciated. A **Fireside chat** was conducted by Dr Duru Shah with Mrs. Anita Pansare, R&D Leader, Philips, Mrs. Neena Sonavane, Director- Quality, Philips, and two patients with PCOS, Mrs Astha Mahatani and Mrs. Aparna Kedia who had PCOS and shared their personal experiences on how they kept PCOS under control.

Program

- Interactive Panel on PCOS by Medical Experts
- Audience Q&A with Experts on managing PCOS
- Fireside Chats with Experts
- An interactive Skit
- Real-life experiences and success stories
- Valedictory Ceremony & High Tea
- Interactive Session with Delegates

Panel Discussion on: "Unravelling the Puzzle of PCOS"
Audience Open House – Q&A with Experts
Fireside Chats
Skit on PCOS by Medical Graduates
A Fun-Filled PCOS themed Tambola with the Audience
Awards for Vijayeta Champions
Valedictory Remarks followed by High-Tea
(Appreciation of speakers)

Lastly, a fun-filled Tambola based on PCOS theme was conducted by Dr Sangeeta Agarwal. It was a lively game and enjoyed by all. The programme ended with valedictory remarks by Dr. Asha Gokhale thanking everyone for their active and positive participation. High tea was served which was enjoyed by all the delegates.



Panel Discussion: Unravelling the Puzzle of PCOS

Celebrating International PCOS Month: Let's Talk



Welcome Address by President, Dr Duru Shah



Skit on PCOS by Medicate Graduates


Dr Asha Gokhale, Convenor



Fireside Chat


Mr Sharadh Lodhi, People Business Partner, Philips


Ms Monika Bahl, CSR Lead, Philips India




Dr Sangeet Agrawal conducting the PCOS Tambola game



Our Delegates! Who made this event a grand success!

E3 Seminar

Ahmedabad, 17th Nov, 2024











FEEDBACKS:

Dr.Mahesh Gupta: The E3 Seminar was very well organised,All the delegates did not stir from their chairs & were listening to the talks with great concentration, as many aspects & subjects,they heard & understood for the first time.

Dr.Nisarg Dharaiya: We need such highly academic One-Day conferences more often. The choice of the multidisciplinary faculties was excellent!

Dr.Binal Shah: Fantastic arrangements, academics at its peak.

Dr.Rajkumar: Please organize such conferences again, we are 100% satisfied with the topics,faculties & food.

Dr.Dilip Gadhavi: Truly enjoyed every session.

Dr.Manoj Pandya: I always attend PCOS conferences. Dr.Duru Madam always organises very educational & academic events.This E3 seminar was at our own Ahmedabad,very successful.

Dr.Kiran Desai: Its a memorable & unique event. Its commendable the way Dr Kanthi invited all the faculties with lots of respect & sending reminders.





Recommendations for Early Detection and Timely Management of Acanthosis nigricans : by an Indian Expert Group

Acanthosis Nigricans is a well-known clinical condition of the skin, which is a prominent sign of Insulin Resistance (IR) besides other disorders. If it is present, we can presume that the patient has IR. Expert Group of The PCOS Society, India has reviewed Acanthosis nigricans with recommendations for early detection and timely management in PCOS women.

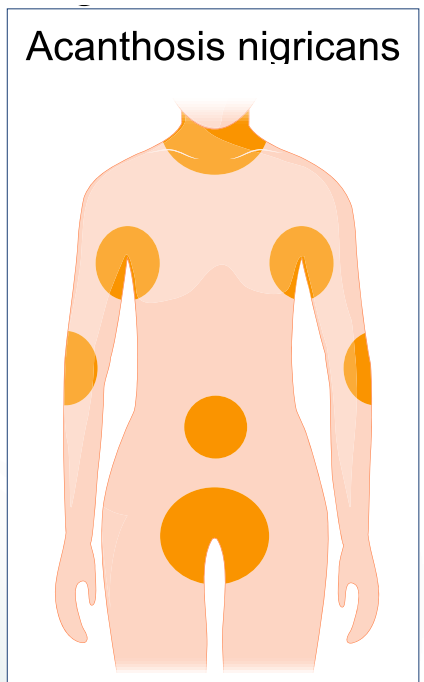
The Recommendations have been developed with the extensive work done by the **Dermatology Special Interest Group** of the Society, in collaboration with multiple organisations such as :

- Association of Physicians of India (API)
- Endocrine Society of India
- Indian Academy of Pediatrics (IAP)
- Indian Association of Dermatologists Venereologists and Leprologist (IADVL)
- Indian College of Obstetricians and Gynaecologists (ICOG)
- ICMR-National Institute for Research in Reproductive and Child Health (ICMR-NIRRCH)
- Indian Dietetics Association
- Indian Society of Medical and Pediatric Oncology (ISMPO)
- Medical Research Centre-Kasturba Health Society
- Mumbai Obstetrics and Gynecological Society (MOGS)
- Sir Vithaldas Thackersey College of Home Science (Autonomous) SNDTWU, Mumbai
- Tata Institute of Social Sciences (TISS)

It was recently published in the Journal of the Association of Physicians India (JAPI), which we are happy to share with you. Below is the Abstract with a link to the article is available on the PCOS Society, India website. Do read the Recommendations as they will truly assist you in managing PCOS women effectively with excellent results. I take this opportunity to thank all who have supported us in this endeavor and making this excellent scientific review possible.

Link for Full Text: https://www.pcosindia.org/publication.php

Authors: Gulrez Tyebkhan[1], Sangeeta Velaskar[2], Preeta Yadav[3], Meghana Phiske[4], Duru Shah[5]



The most common site of acanthosis nigricans

ABSTRACT

Introduction: Acanthosis nigricans (AN) is a visible cutaneous manifestation of several underlying systemic conditions, such as prediabetes, diabetes mellitus (DM), polycystic ovarian syndrome (PCOS), metabolic syndrome (MS), and malignancy. AN is commonly seen in obese individuals and is a proven skin marker of insulin resistance (IR). Its typical clinical presentation and location, especially on the nape of the neck, allows for easy visual identification. Obesity, IR, and other noncommunicable diseases (NCD) are on the rise in India, with many cases being undiagnosed or missed. Every sixth diabetic in the world is Indian. AN can thus play a vital role in screening, early identification, and reduction of morbidity, especially of IR-related disorders. Currently, there are no national or international multidisciplinary guidelines or recommendations for AN.

Objective: To review published current literature and evidence on AN, its associations, and management. To recommend an approach to clinical identification of AN, associated/underlying disorders, investigations, and management, including lifestyle modifications. To sensitize and familiarize clinicians and healthcare workers across India with AN presentations. This will enable early detection of conditions such as IR, prediabetes, DM, PCOS, malignancy, etc., in practice and in the community.

Materials and methods: The PCOS Society of India constituted a multispecialty Expert Working Group with representation from various national societies to review all published scientific evidence. Expert group meetings were conducted to provide recommendations.

Conclusion: Acanthosis nigricans is a simple, non-invasive, cost-effective screening tool for early identification of IR. It is important to integrate and disseminate information and training on AN across medical specialties. The government of India has launched several National Health Programmes to help address the rising burden of NCD in the population. AN would provide a simple screening tool to pick up undiagnosed or missed cases.

Scan for Full Text

Continued from page 5 The relationship between Hypothyroidism and PCOS

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The author is an endocrinologist and gynaecologist with Board Certification in Reproductive Endocrinology and Infertility from Brisbane Queensland Australia and is currently the President of the Asia Pacific Initiative in Reproduction.

Point of View: Does PCOS impact mental health?



Dr. Chandrika Anand
Gynaecologist

Q. How is PCOS associated with Mental Health issues and what is the pathophysiology?

Health related quality of life (HRQoL) is reduced in women with PCOS.

It is a well-recognized and important health outcome, especially in chronic diseases, and relates to patient-reported physical, social, and emotional effects of a condition and its associated treatments.

Possible mechanisms of depression and anxiety in PCOS could be due to

- Abnormally elevated cortisol and Hyper response to stress
- HPA axis defect
- Prolonged inflammation
- Insulin resistance
- Hyperandrogenemia

Q. What mental health issues do you see frequently in PCOS women?

- **Depression** (80%), anxiety (76%), and body image disorders are observed more frequently in women with PCOS. It is observed more so in adolescents and women who are infertile, obese, hirsute, and who suffer from alopecia.
- **Disordered eating and eating disorders** affect health and well-being and capacity to participate in and contribute to society. Observed in up to 21 % of PCOS patients.
- **Psychosexual dysfunction** refers to sexual problems or difficulties that have a psychological origin based in cognition and/or emotions such as depression, low self-esteem, and negative body image observed in 13-62% of women with PCOS.

Q. Do you routinely screen for them?

- Yes. All patients with PCOS should be screened for depression and anxiety and promptly referred to a psychologist or psychiatrist for further assessment and care.





Dr. Sapna Bangar
Psychiatrist

Q. What are the common mental disturbances in adolescents and are they more pronounced in PCOS adolescents?

Adolescence is a time of significant emotional, psychological and physical changes, and mental health challenges are fairly common. The most common mental disturbances seen are anxiety disorders, depression, other mood disorders, self-harm and suicidal tendencies, body image issues, eating disorders, substance use, risky behaviors as well as gender and sexuality issues.

Studies show that individuals with PCOS are at a higher risk for depression, anxiety and body image issues leading to eating disorders.

Q. What are the common reasons for these disturbances?

Hormonal changes, genetic predisposition, social and peer pressure, family dynamics, stress, physical health challenges, infertility, obesity, menstrual irregularities, hirsutism, feminism and cultural expectations, Insulin resistance, Androgens, and neurotransmitters - serotonin.

Q. What helps them? Are medications a part of the treatment plan?

Effective treatment involves a combination of approaches tailored to the individual's needs.

Key components include

- **Psychotherapy/Counselling:** Cognitive Behavioural Therapy (CBT) is effective for anxiety and depression.
- **Family therapy:** involving family members in therapy can provide better support and understanding.
- **Peer support groups:** either in person or online can help adolescents with PCOS feel less isolated and more empowered.
- **Lifestyle modifications:** regular exercise, a balanced diet, and sufficient sleep can significantly improve mood, self-esteem, and overall mental well-being.
- **Mindfulness and relaxation techniques:** meditation, yoga, and deep breathing exercises can reduce stress and anxiety, helping adolescents manage overwhelming emotions.
- **Education and empowerment:** Educating them about their condition and how to manage it can alleviate some of the fear and confusion surrounding their symptoms and lead to better self-care practices.
- **Medications** can be part of the treatment plan, depending on the severity of the mental health disturbance.



Dr. Ramya R
Psychologist

Q. What coping strategies do you suggest for managing the emotional impacts of PCOS?

- Mindfulness and relaxation techniques
- Cognitive-behavioural therapy (CBT)
- Support groups and online forums
- Self-care activities (exercise, journaling)
- Educating loved ones about PCOS
- Focusing on overall health, not just weight.

Q. How does infertility impact mental health and how do you counsel them?

Infertility can significantly impact mental health, leading to anxiety, depression, grief, and relationship strain. Counselling individuals experiencing infertility involves:

- Validating emotions and experiences
- Exploring coping mechanisms and support systems
- Addressing relationship dynamics and communication
- Fostering self-care and stress management
- Discussing treatment options and alternatives
- Providing resources and referrals

A non-judgmental, empathetic, and supportive approach helps individuals navigate the emotional challenges of infertility.

Q. What therapeutic and behavioural techniques do you find most effective for adults with PCOS?

For adults with PCOS, effective therapeutic and behavioural techniques include:

- Cognitive-behavioural therapy (CBT)
- Mindfulness-based stress reduction (MBSR)
- Acceptance and commitment therapy (ACT)
- Healthy eating habits
- Regular physical activity
- Sleep hygiene and stress management.

By incorporating these therapeutic and behavioural techniques, adults with PCOS can better manage symptoms, improve quality of life, and enhance overall well-being.

Compiled by Dr Riddhi Desai

Hot off the Press

Should we assess Homocysteine in PCOS Women?

What is Homocysteine?

Homocysteine (Hcy) is an amino acid formed by the conversion of methionine to cysteine. It is metabolized by one of two pathways: trans-sulfuration and remethylation. This process requires vitamin B as a cofactor. Homocysteine is present in various tissues, primarily in the liver, kidneys, and plasma, where it plays a role in protein and neurotransmitter synthesis.

What is hyperhomocysteinemia?

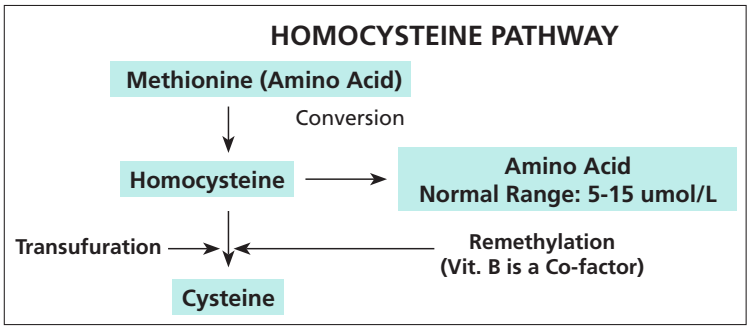
Elevations in plasma homocysteine are common and occur in five to seven percent of the general population. It can occur due to genetic defects in the enzymes involved in homocysteine pathways such as methylene tetrahydrofolate reductase (MTHFR), due to deficiencies in vitamin cofactors, or additional factors that include certain chronic medical conditions and drugs, such as fibrates and nicotinic acid.

How does elevated Hcy affect us?

Hyperhomocysteinemia is an independent risk factor for atherosclerotic vascular disease, cerebrovascular events, and recurrent venous thromboembolism.

In polycystic ovary syndrome (PCOS), hyperhomocysteinemia is linked to insulin resistance, inflammation, and altered hormonal milieu. These factors disrupt methionine metabolism, increasing homocysteine levels. Additionally, obesity and impaired folate metabolism frequently observed in PCOS worsen this elevation. **Elevated homocysteine in PCOS correlates with adverse reproductive outcomes, including poor oocyte quality and reduced fertility.**

Corrective strategies include lifestyle changes like weight management and exercise to improve insulin sensitivity. Supplementation with folate, vitamin B12, and vitamin B6 supports homocysteine clearance. Additionally, addressing underlying insulin resistance with medications like metformin can help normalize homocysteine levels and improve outcomes in PCOS patients.



Homocysteine, vitamin B12, and folate circulating levels in women with and without polycystic ovary syndrome: A systematic review and meta-analysis.

Ulloque-Badaracco JR et al.

Womens Health (Lond). 2024 Jan-Dec; 20:17455057241279039. doi: 10.1177/17455057241279039. PMID: 39320480; PMCID: PMC11437568.

Abstract: This systematic review and meta-analysis assessed the circulating levels of homocysteine, vitamin B12, and folate in women with and without polycystic ovary syndrome (PCOS). 75 studies were included and the findings revealed that **women with PCOS had significantly elevated homocysteine levels compared to women without PCOS**

On the other hand, there were no significant differences in circulating vitamin B12 levels between women with and without PCOS. The study's findings emphasize the potential role of elevated homocysteine as a biomarker associated with PCOS, while vitamin B12 and folate levels appear unaffected by the condition. These insights highlight the importance of investigating homocysteine-lowering strategies to improve outcomes in affected women.

Link for Full Text: https://doi.org/10.1177/17455057241279039

Compiled by Dr Duru Shah, Dr Zoish Patel





In PCOS & Related Infertility*

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  - Increase SHBG

Carbohydrate metabolism

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1. European Review for Medical and Pharmacological Sciences 2019; 23: 5512-5521. 2. Int. J. Mol. Sci. 2019, 20, 5787. 3. Reprod Biol Endocrinol. 2023 Jan 26;21(1):10 *As a nutritional supplement

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