



Integrative Care for PCOS: Body Mind Spirit Solutions

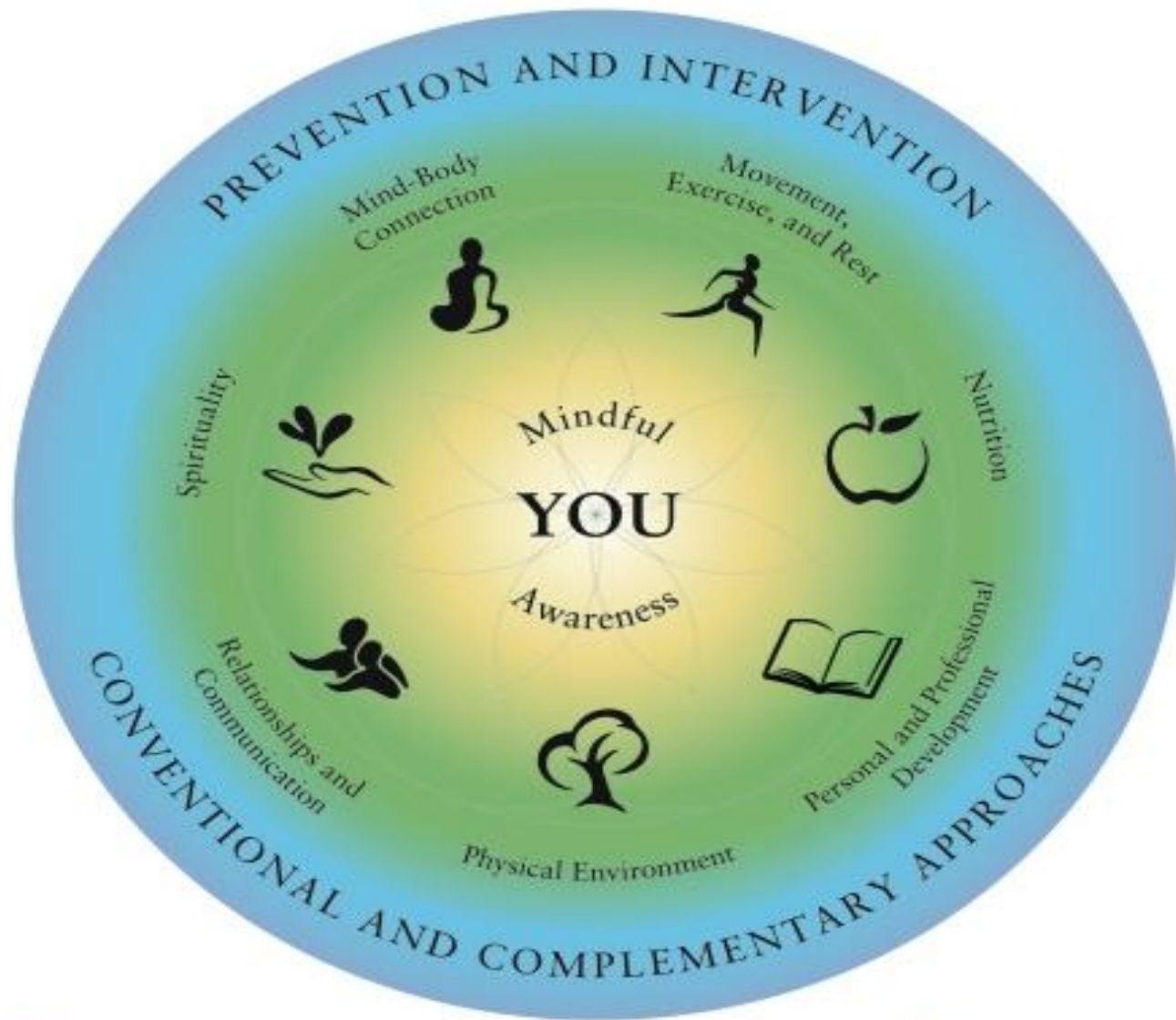
Georgia Tetlow, MD

Clinical Assistant Professor of Rehabilitation Medicine
Sidney Kimmel Medical College, Jefferson

- Fellowship Graduate, University of Arizona Center for Integrative Medicine
- CEO, Founder of Philadelphia Integrative Medicine

Disclosures

- I offer clinic appointment and educational programs



Self-Care

Professional Care

Integrative Approach

- Health is the focus
- Empower you
- Integrative: best of conventional and evidence based alternative
- “If its safe and efficacious...”
- Doctor-patient relationship

Your choices matter

- **Root causes, not just symptom reduction**
- Genes turned on or off by nutritional choices, levels of social support, stress reduction such as meditation, and moderate exercise

What you can do: supplements

- **Chromium*** polynicotinate 200-1000mcg
- **Vitamin D₃** and fertility
 - “Inverse association between vitamin D status and metabolic disturbances in PCOS” (Krul-Poel, 2013)
 - **N-Acetyl Cysteine** may reduce insulin resistance and improve fertility
 - DBPCT (N=150) overweight/obese women with PCOS who failed to ovulate with clomiphene received 1000 mg/d clomiphene and 600 mg NAC twice daily for 5 days
 - Ovulation: 49.3% versus 1.3% (placebo) ($p < .0001$) (Rizk, 2005)
 - Pregnancy rate: 21.3% versus 0.0% (placebo) ($p = 0.00006$)

*Safety concerns during pregnancy

N-Acetyl Cysteine continued

- Prospective cross-over trial (N=573), clomiphene (100mg/day) and NAC (1200mg/day) → **significantly improved ovulation, serum estrogen, progesterone, endometrial thickness, and pregnancy rate** compared clomiphene alone (Badawy, 2007).
- **Clomiphene resistant? Latest research: stick with metformin.**
 - Over 3 months, metformin plus clomiphene group had significantly higher ovulation/pregnancy rates compared to NAC plus clomiphene group (69.1% vs. 20.0%, $P = 0.002$, and 22.7% vs. 5.3%, $P = 0.020$, respectively) (Abu Hashim, 2010).

Supplements

- Cinnamon—1/4-1/2 tsp/day for insulin resistance
- Spearmint—1-5 cups/day hirsutism
- Saw Palmetto*—reduces 5 alpha reductase
 - PCOS, hirsutism

*Safety concerns during pregnancy

Supplements

- **Chastetree*** (Vitex): if high prolactin
 - Binds dopamine receptors → inhibits prolactin
- In absence of high prolactin, do not use, particularly in obese women, as it may increase LH (leutenizing hormone) levels
- For full evidence and dosages for supplements → 3 page handout

*Safety concerns during pregnancy

PCOS: The Latest Research on Safe, Effective Vitamins, Minerals and Herbs

Handout Source: Excerpted March 24, 2015 from University of Arizona Fellowship in Integrative Medicine Premium Alumni Content 2014-2015 (password protected), Integrative Women's Health, Infertility, PCOS: Dietary Supplements, [url: http://integrativemedicine.arizona.edu/program/alum2014/integrative_womens_health/infertility_pcos/8.html](http://integrativemedicine.arizona.edu/program/alum2014/integrative_womens_health/infertility_pcos/8.html)

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Chromium* is an essential trace element for mammals and is required for maintenance of proper carbohydrate and lipid metabolism. Chromium enhances glucose metabolism, decreases cardiovascular risk, and may benefit atypical depression ([Pattar](#), 2006). In a study of women with PCOS, those who were insulin resistant were found to have significantly lower levels of serum magnesium ($r = -0.31$; $p < 0.03$) and chromium ($r = -0.38$; $p < 0.006$), which also significantly correlated with fasting insulin levels ([Chakraborty](#), 2013). Unfortunately, there are no studies evaluating the effect of supplementation of chromium in women with PCOS. The typical dose is 200-1000 mcg daily of chromium [polynicotinate](#).

Vitamin D: A study by [Ott](#) et al in 2012 found that 25OHD3 seems to play a major role in fertility treatments in women with PCOS: low 25OHD3 levels and 25OHD3 deficiency ($<25\text{nmol/l}$) were associated with lower rates of follicle development and pregnancy after stimulation with 50mg clomiphene citrate ([Ott](#), 2012). This

Conclusion

- Integrative Medicine
 - Evidence-based, just good medicine
- You are the key
- Philadelphia Integrative Medicine
- 888-702-7974 x 2 or info@philly-im.com
- Wayne, PA (30 min train ride from center city)