"PCOS Nutrition: A Sustainable & Science-Backed Approach"

Webinar Questions Answered by Melissa Groves Azzaro, RDN, LD

Please note that these are brief answers to complex questions and are not meant as medical advice. Please seek medical advice from your personal healthcare professional for more complete information.

PCOS General Questions

Where can I find the PCOS guidelines?

Monash University, 2023 - https://www.monash.edu/medicine/mchri/pcos/guideline

How young can PCOS be diagnosed or risk for PCOD be identified?

PCOS can generally be diagnosed in puberty, or with delayed onset first menstrual period. Polycystic ovaries are common within the first 3 years after onset of menstruation – I recommend clicking the link above for the PCOS Guidelines for diagnostic criteria (I'm a RD – I can't diagnose, so this is not something I'm doing.)

Do you see PCOS linked with any autoimmune diseases

Yes, there's a higher incidence of autoimmune conditions with PCOS. The one I see most commonly is Hashimoto's thyroiditis. Typically inflammation is an underlying factor in both.

Regarding working with college students, how would you best start working with newly diagnosed PCOS patients? With busy lifestyles, they might not be able to follow certain plans.

This has to be personalized for the patient. What are they symptoms that are unbearable to them? What are their goals in the immediate future, in 5 years, in 10 years? This age can be tough as stress is usually high, sleep is usually low, and diets are less than optimal as they're away from home for the first time and learning how to eat and plan meals. So, we start with their goals and then what interventions are doable and sustainable for them given their current schedules/lifestyles, knowing that this may change down the road when they're ready to implement more changes.

I realize this was PCOS and nutrition; how about seeing women who had PCOS and are now entering menopause - does the research for nutrition intervention change, or did you see that in your literature review?

I haven't seen any research specifically on nutrition in perimenopausal/menopausal women with PCOS. In practice, I find that while the reproductive hormone abnormalities become less pronounced during this time as menstruation and natural hormone cycles decrease, the metabolic components of the condition worsen. The underlying insulin resistance often becomes full-blown type 2 diabetes, the cholesterol dysregulation, high blood pressure increase risk for heart disease and stroke, and endometrial cancer often manifests during this time. As well as the weight gain that many women experience during the transition to menopause. So, all of the same principles still apply — blood-sugar-balancing, anti-inflammatory diet, higher protein to support age-related muscle loss, high fiber to support gut microbiome, weight, blood sugar, and cholesterol, etc. There is

some research that due to the high follicle count seen with PCOS, women with PCOS may actually enter menopause a few years later, on average (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8189332/).

PCOS Diets

Does the "Low glycemic" diet refer to glycemic index foods?

Yes, low-glycemic foods or low glycemic index diet. I don't find this very useful in practice as it is often not intuitive to a client which foods are low glycemic or which are not, especially when the way the food is cooked changes its score. I find it easier to recommend foods that we know to be lower glycemic (eg, whole grains vs refined, legumes, fruits, vegetables with skins on, etc.) Additionally, we're almost never consuming foods alone (which is what the glycemic index measures), so I find having clients focus on pairing carbs with protein and fiber to be easier to understand and implement versus having them fixate on glycemic values of individual foods.

What is your opinion on a primarily high protein and high fat diet (carnivore) diet? There are testimonies from people on how it has positively affected PCOS and endometriosis.

People with PCOS hyper-react to saturated fat, and these diets can be high in saturated fat.
Additionally, these diets are low in fiber, which is extremely important for PCOS in terms of blood sugar management, satiety, and digestive health. And extremely low in antioxidants, which are important in PCOS for managing oxidative stress and inflammation, lowering risk for cardiometabolic conditions, and crucial for supporting a healthy pregnancy (if fertility is a goal).

Have you seen any adverse side effects with higher levels of protein?

No, however, I am working mainly with otherwise healthy women with PCOS with no kidney issues, whose main goals are to lose weight and/or get pregnant.

Meeting 30% intake of kcals from protein can be difficult for many patients. Do you suggest your clients take protein powders?

I suggest using protein powders as a supplement where appropriate, or to add protein to otherwise low-protein foods (for example, if they really like oatmeal for breakfast, we would add protein to that). I recommend that they get the majority of their protein from whole foods and supplement with protein powders or drinks as needed / appropriate.

I've seen health practitioners recommend that women with PCOS to go dairy-free, citing the presence of insulin-like growth factor-1 in milk and dairy products. Do you have any perspective on this?
What are your thoughts on recommending full-fat dairy products for fertility in someone who has PCOS?

While dairy may increase IGF-1, and excess dairy (≥3 servings a day) has been linked to increased risk for acne, there are no studies showing that eliminating dairy is necessary or beneficial for PCOS. We have to meet clients where they are, and increasing protein intake (from all sources) is more important than worrying about IGF-1 for most. Dairy is an extremely convenient and affordable source of protein (yogurt, cottage cheese, etc.), there's research that dairy is anti-inflammatory in metabolic syndrome (which is common in PCOS)

(https://pubmed.ncbi.nlm.nih.gov/37513677/, https://pubmed.ncbi.nlm.nih.gov/31089732/) and there's research that full-fat dairy in particular is tied to better fertility outcomes.

How much fiber is (on average) is considered high for the "high fiber diet"?

The RDA for women is about 25-28 grams a day; however most people are consuming 12-15 g/d. The studies weren't clear on the amount of fiber recommended but included whole grains, vegetables, legumes, and prebiotic powder supplements.

I am curious: is that image of something like the old food guide pyramid?

I'm not sure what image you're referring to, but I use a modified plate method with my clients.

How would you tailor this for individuals with eating disorders who struggle with restriction and binging related to restriction?

Diet should be individualized for every person with PCOS, depending on their needs and goals.
For individuals with eating disorders, restriction and intentional weight loss should not be goals. However, risk reduction by balancing blood sugar, lowering inflammation, and supporting gut and hormone health are still important. Using a gentle nutrition approach that emphasizes increasing protein, increasing fiber (fruits, vegetables, legumes), ensuring that they are properly fueling throughout the day to mitigate risk of nighttime binging can all help. Using a "what can we add" to make the diet more balanced approach (versus cutting out foods, which I don't do for any people with PCOS anyway). Less focus on numerical targets / macros and no tracking food if that is triggering for the person. Often the eating disorder recovery must be prioritized before the medical nutrition therapy for PCOS. Those with active eating disorder should be being monitored by a full team.

Thoughts on caffeine and whether coffee should be avoided?

It's on a case-by-case basis. It is a myth that all women with PCOS have high cortisol levels. I generally recommend an upper limit of 200 mg a day, early in the day, certainly under that if fertility is a goal. But most don't have to avoid it completely unless they're sensitive or it's impacting their sleep.

I work with women who have GDM and insulin-resistant conditions; how do you guide patients on the topic of artificial sweeteners and/or frequency of intake?

I do not encourage use of non-caloric sweeteners ("natural" or artificial) for multiple reasons including impact on gut microbiome, impact on glucose tolerance, and continuance of cravings for sweet/sugar.
I do encourage using real sweeteners, as a treat, within the WHO or AHA guidelines (5-6% of total daily calories from added sugar, which equates to 20-25 grams a day).

How does the low carbohydrate intake affect the client's energy levels?
"Low carbohydrate" is defined in studies as ≤40% of daily calories. Which is 160-200 grams of carbohydrate a day on a 1500-2000 calorie a day diet. This is not "low" carbohydrate, but a more moderate approach compared to a typical Western diet. We adjust this number upward in highly active / athletic clients as needed. In this population, which is highly insulin resistant, they are often tired after eating high carbohydrate

meals. By increasing protein & fiber and moderating their carbohydrate consumption, their increase in energy is nearly immediate.

For a vegetarian or vegan patient with PCOS, what do you recommend to increase protein while balancing carbohydrate intake (given that many vegetarian protein sources - beans, legumes, whole grains, etc. - contain carbohydrates as well)?

As you've noted, a vegetarian or vegan diet makes achieving a blood sugar balancing diet more difficult in PCOS. Since nuts contain as much (or more) fat as they do protein and legumes contain as much (or more) carbs than they do protein, to meet protein targets often means exceeding calorie targets, which can make weight loss more difficult. Soy is the only "concentrated" plant-based protein source (not excessive in carbs or fat), but we don't want them eating soy 3x/day. They more they are willing to incorporate dairy, eggs, even fish, the easier it is for them to hit targets, keep blood sugar & insulin low, and lose weight. Protein powders can help supplement foods naturally low in protein.

You mentioned fat not affecting insulin. What about saturated fat, does this affect insulin resistance?

Yes, people with PCOS are hyperreactive to saturated fat. It should be limited (<7-10%).

In your experience, how long does it typically take to see improvements in symptoms once implementing these interventions?

It depends on the symptom – generally, energy increases and cravings decrease pretty rapidly. They may notice less bloating and clearer skin. Cycles start to regulate after about 4-6 weeks, weight starts to shift around 6-8 weeks. Once ovulation is restored, pregnancy usually happens pretty quickly if they're actively trying. Anything involving a hair follicle is tough because they have their own life cycle – I tell patients to expect to notice differences in excess hair growth or hair thinning with a year or more of consistent action.

How do you respond when patients want to remove dairy or soy?

With curiosity. WHY do they want to remove dairy or soy? Because they heard it was "bad" or because they're experiencing symptoms after eating them? If they are noticing symptoms after eating certain foods, it's worth trialing an avoidance for a short period of time, then a rechallenge to see if symptoms persist. We also talk about not throwing away a whole category of food if they're reacting to a specific component of that food (eg, if lactose intolerant, they may still tolerate lactose-free cheeses, yogurt, etc.). But ultimately, it's up to the person what they're willing to eat and not eat — all I can do is educate them on the benefits/risks and let them decide for themselves.

What about eating in a specific order to support insulin? (fiber first, then protein, fat, and carbs last) Heard a bit about this. What are your thoughts?

I think the research on this is interesting. The studies I've seen have been on protein + veggies first then carbs later versus carbs first, then protein + veggies later (with the protein + veggies first decreasing postprandial blood glucose). I believe these studies were done in healthy individuals and replicated in people with diabetes, but to my knowledge haven't yet been studied in PCOS. It's an interesting concept, and one I talk about with clients in relation to holiday eating (eat your protein & veggies first and then whatever room you have left is for the stuffing / mashed potatoes / dessert. But as far as strategies that move the needle the most, it's not

nearly as important as simply increasing the amount of protein & fiber they're typically consuming. I do find for those who have trouble "fitting in" their meals, having them focus on protein first can help (such as post bariatric surgery).

Weight

How are you determining ideal body weight?

There are multiple methods.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4841935/
https://www.sciencedirect.com/topics/medicine-and-dentistry/ideal-body-weight
An ideal body weight should fall within the guidelines of a "normal/healthy" BMI

When are you using IBW vs ABW?

ABW is for dosing medications. I'm using IBW as a loose framework / guide, and for protein recommendations only. Another option if you know lean body mass is to use that as a guideline.

What calculation do you prefer when calculating your patients' caloric needs? Do you prefer one over the other, such as Mifflin St. Jeor vs Harris Benedict?

Harris-Benedict is more accurate in this population, although none of the equations are highly accurate: https://pubmed.ncbi.nlm.nih.gov/28791776/

Thoughts on weight gain associated with PCOS? Could it be appetite changes with hormonal imbalances or any altered metabolism due to PCOS?

The most important thing to consider is that weight is a SYMPTOM of PCOS, not the cause (although excess fat can worsen symptoms of PCOS through inflammatory, hormonal, and other mechanisms).
Generally, the weight gain or weight loss resistance seen in PCOS is due to the insulin resistance, the inflammation, the elevated androgens (which are anabolic), hypothalamic-adrenal-axis dysfunction (high or low cortisol, high DHEA), and hypothyroid is also more commonly seen in PCOS. Nutrient deficiencies, mood disorders, sleep disorders contribute to fatigue and low motivation for activity. It's multifactorial. But the strong cravings for carbs and sugar seen with insulin resistance certainly can make it harder to "stick" with a weight loss plan. Any metabolic differences are minimal – what I see more often is a decades long history of yo-yo dieting and weight cycling that has contributed to a slower metabolism.

Lean PCOS in teens - I've just been recommending a holistic approach - mind, body, spirit, nutrition, stress management, etc. - I find it challenging to establish objective goals with them as I can with obese PCOS. How do you counsel lean PCOS and nutrition?

This can be a tough one. Often, they've "done their own research" and are following a highly restrictive low carb, low sugar, low fruit, dairy-free, gluten-free diet because that's what they see on the internet and that's what they think that they "have" to be doing. So, it's often a matter of educating on quality / slow / complex carbohydrates and increasing those. Lean PCOS is often linked to higher adrenal androgens and normal testosterone levels, and eating in a way that is adding stress to the body can worsen symptoms. I do see a

significant amount of gut dysfunction and gut dysbiosis and sometimes higher levels of inflammation in women with "lean PCOS." The main difference is that insulin resistance is not the main driver of symptoms, so we can let up on some of those more restrictive / lower-carb approaches.

Functional Foods

I've heard that mushroom increases hormonal imbalances and can affect hormonal medications like birth control. Can you review the adaptogenic mushrooms a little more and their possible side effects?

Different mushrooms may have different effects. The only mushroom I'm using occasionally in PCOS is reishi, which may have anti-androgen effects: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3693613/

What are evidence-based recommendations for ACV and cinnamon? What does ACV stand for?

ACV = Apple cider vinegar. Apple cider vinegar consumption prior to a meal containing carbohydrates may lower postprandial blood glucose - https://pubmed.ncbi.nlm.nih.gov/28292654/
Cinnamon – There are many studies suggesting cinnamon can lower blood glucose - https://pubmed.ncbi.nlm.nih.gov/38466959/

Why do people say to avoid soy with PCOS?

Ignorance? Fear? Soy is a fantastic source of protein, lowers risk for cardiovascular disease, and is a phytoestrogen, which may help symptoms. I do recommend whole soy (tofu, tempeh, edamame, minimally processed soy milks) and avoiding highly processed soy protein isolates.

What do you think of phytoestrogens and PCOS?

Generally, they're unrelated to PCOS. Phytoestrogens may help decrease symptoms from excess estrogen and alleviate symptoms of low estrogen. PCOS is not a condition that directly impacts estrogen levels. That being said, there are many people who have both PCOS and estrogen issues, so in those people, recommending phytoestrogens may be helpful.

Exercise

What are some exercise recommendations for someone with PCOS who are obese?

We have to start where they are. If they're not exercising at all, getting them to start with short walking bouts during the day (5-10 minutes) can be appropriate. Then add time/distance/number of exercise days from there as they build endurance. I encourage them to work with a personal trainer when they're ready to add strength training to ensure that what they're doing is safe and appropriate for them. The ultimate goal is to get them up to what guidelines recommend for everyone (150-300 minutes cardiovascular exercise, 2-3 full-body weights workouts per week). Using heart rate, perceived exertion, etc to gauge effort.

Inositol

When and how do you recommend inositol?

I consider inositol foundational for PCOS. I recommend 2000 mg myo-inositol BID. We only stop this if we have confirmed no insulin resistance is present AND they are not trying to conceive or struggling with weight.

What other conditions could inositol be helpful for? And what's the difference between inositol and myoinositol?

Well, this presentation is on PCOS and that's what I specialize in. That being said, I've come across research that shows benefit of inositol in insulin resistance (unrelated to PCOS), mood, and autoimmune thyroid conditions. "Inositol" generally refers to "myo-inositol," but can also refer to all inositols. The other one with research on it is D-chiro inositol, which may be added to myo-inositol in a 40L1 ratio (eg 2000 mg myo / 50 mg d-chiro).

Is inositol okay to take with metformin?
Can you review dosing for inositol and type you recommend?

For the most part yes! There are studies on the two in combination as well as head-to-head studies. Generally the goal for most of the patients I work with is to minimize their use of prescription medications and manage the condition naturally if possible, and metformin comes with some pretty severe GI side effects for most that they're looking to diminish. I recommend monitoring glucose, insulin, A1c, and then they can discuss with the prescribing doctor if/when it may be appropriate to discontinue the medication.
I generally recommend Myo-inositol for most patients at a dose of 2000 mg twice a day (powder in water).

Do you recommend inositol with D-chiro or is it effective on its own?

I NEVER recommend D-chiro alone. Either in combination with myo-inositol or just myo-inositol alone.

Probiotics / Prebiotics / Postbiotics

Which is more helpful, probiotics or prebiotics?

We need both. Probiotics are living bacteria. Prebiotics are the food that that bacteria eat. If you give probiotics (or recommend increasing fermented foods) but are not giving the bacteria something to eat, they likely won't stick around or thrive. In terms of probiotic versus prebiotic supplements, it truly depends on the person and their intake. Are they eating fermented foods regularly, or no? Are they eating adequate fiber with a variety of dietary sources of fiber daily, or no?

Regarding probiotics, newer research seems to support pre-pro-postbiotics, are you using pre-pro-post, Or sticking with just probiotics?

To be honest, I'm not even using probiotic supplements in most people, if they're able to incorporate fermented foods like yogurt, kefir, sauerkraut. Then strain-specific probiotics as warranted. If we're doing a gut protocol, I do often support probiotic supplementation with prebiotic supplementation (eg, inulin, guar gum) to "feed" the bacteria we're introducing. I'm not using postbiotics in anyone, as that's often not the

biggest priority and we have a lot of other things to work on (insulin resistance, inflammation, hormone imbalances, concomitant conditions).

Is there a specific strain of probiotic that is beneficial in this population?

Studies have generally been on lactobacillus / bifido combinations. I've been using akkermansia quite a bit in the last year or so in those with severe insulin resistance - https://pubmed.ncbi.nlm.nih.gov/38829529/

Omega-3's

Would you recommend an omega 3 supplement if someone doesn't like seafood?

Absolutely. I use a food first approach, so if they can, consuming fatty fish 2-3x/week would be ideal (salmon, mackerel, anchovy, sardines, herring). If they are not willing/able due to allergy or preference, then yes, 1000-2000 mg/day of a combination EPA/DHA fish oil.

Other Supplements

Any experience with Calocurb appetite control supplement?

This is a relatively new supplement that includes a component from hops which may help curb appetite. So far I've only used it in a handful of patients who are either transitioning off of a GLP-1 medication or who struggle with extreme cravings and "bottomless" hunger and thus far I've been pleased with the results – patients report that it "takes the edge off" the hunger. This does have to be taken before a meal and does not have lasting effects, so that may be a deterrent for some.

Is there a need to monitor blood work if someone is consuming dried barberries, or is the safety concern restricted to just the Berberine supplement?

I've never recommended dried barberries – I would assume that the same risks would apply, although berberine supplements can be made from barberry, goldenseal, Oregon grape, or other plant compounds. There are multiple contraindications for use, so always be sure to check a drug interaction tool (I use Natural Medicines Database).

How is iodine effective in the treatment of PCOS and fibroid symptoms?

There's not much evidence for use of iodine above and beyond the RDA (or a multivitamin) for PCOS.
For uterine fibroids, which are an entirely different condition from PCOS, I'm not familiar with the use of iodine in these cases other than to support concomitant thyroid issues.

What antioxidants are recommended for PCOS?

I'm generally not recommending antioxidant supplements for PCOS, although I'll use curcumin, quercetin, resveratrol, CoQ10, zinc, selenium on a case-by-case basis depending on what else is going on. Instead, we focus on a high antioxidant diet (darkly colored fruits & veg, herbs & spices, green tea, dark chocolate, etc).

What are the recommended dosages for 40:1 inositol and berberine supplements?

2000 mg myo / 50 mg d-chiro bid (AM/PM
Berberine typically 500 mg 2-3x/day with meals

There are 11 kinds of Magnesium- can you please specify which magnesium supplement to take and can it be taken AM and PM?

With PCOS, I'm generally recommending either glycinate at night to help with potential sleep issues OR citrate at night to help with constipation.

Are there any herbs that good for PCOS?

Sure, but remember that PCOS is not a monolith. Different herbs can be helpful, depending on the specific situation. I do recommend spearmint tea quite often when testosterone levels are high.
Fresh herbs and spices are extremely high in antioxidants and can be helpful for those struggling with high levels of inflammation – oregano, basil, cilantro, garlic, ginger, turmeric, etc. If cortisol and/or stress are high, tulsi (holy basil), lemon balm, ashwagandha, etc, can help.

Lab testing

Is there another test you recommend for evaluating inflammation besides CRP? And what do you recommend for measuring gut health in PCOS?

Hs-CRP is the easiest/most affordable/most accessible. I've seen ferritin levels, WBC, and sed rate used as well, but these are less commonly used. IL-6, IL-10, TNF-alpha are used mainly in research studies and not clinically.

Is there any specific time of the cycle for hormonal blood work?

Yes – Day 3 of the menstrual cycle for FSH, LH, estradiol; 7 days after ovulation (may not fall on day 21) for progesterone testing

What labs are typically taken for PCOS diagnosis? Is this something covered by insurance?

I am a dietitian so I can't diagnose. Generally, docs are testing total testosterone, free testosterone, and sometimes DHEA-S. Additionally AMH can now be used in lieu of transvaginal ultrasound. Together with symptom review (cycle length, signs/symptoms of high androgens).

For monitoring blood work (hormones and CRP levels), do you have any recommended resources for referenced ranges?

I'm using standard lab ranges for hormones & hs-CRP

Is there a different criterion for testing a post-menopausal person or is it the same diagnostic criteria?

For testing to diagnose PCOS? They would have had to be diagnosed prior to menopause as menstrual cycle regularity is a key component of the diagnosis, testosterone levels also drop after menopause, and there shouldn't be any active egg follicles in a person who is no longer ovulating.
But monitoring for sequelae should continue after menopause (fasting glucose, A1c, insulin, hs-CRP, lipids, etc).

Any recommendations on apps to track cycles and ovulation. How often are blood markers, i.e., insulin and CRP, checked in these patients?

I encourage patients to do their homework on apps' privacy policies, eg, who they share their information with. FertilityFriend, Tempdrop are ones that are often used.
For blood markers, insulin and CRP should be checked at diagnosis and, at minimum, annually. More often if trending upward or abnormal (eg, A1c).

Environmental toxicants / hormone disruptors

Can you share any resources to learn more about endocrine disruptors?
Can you speak to endocrine-disrupting chemicals a little more, and what recommendations do you make to clients about this?

Wow – this is a big topic. There have been some studies showing certain environmental chemicals to be higher in people with PCOS compared to those without PCOS (BPA and others). Hormone disruptors bind to hormone receptors in the body and mimic or interfere with the body's own endogenous hormones. Lara Adler teaches about environmental toxins for healthcare practitioners & shares a lot on her Instagram (Environmental Toxins Nerd) – that might be a good place to start: laraadler.com. Personally, I've found that clients can get overwhelmed with all of this really quickly, so it's something I save for later in our work together, and then we focus on making changes that can move the needle the most (avoiding plastic food & beverage storage, filtering water, prioritizing less toxic options for anything that touches the skin or products they use most often, eliminating artificial fragrance use in the home, etc).

Integrative / Functional Approach

Can you share what an "Integrative Dietitian" does?

An integrative dietitian uses nutrition, lifestyle (movement, sleep, stress, environment), supplements and testing to identify and address root causes of symptoms. Integrative medicine is person-centered care and integrates with allopathic/conventional medicine. You can learn more at the Dietitians in Integrative and Functional Medicine (Dietetic Practice Group of the Academy of Nutrition and Dietetics) site - https://integrativerd.org/about-us

Medications

What are your thoughts or know of any research on PCOS and GLP-1 class of medications?

Personally, I see GLP-1 meds as another tool in the toolbox, which may be useful in some cases of PCOS. In particular, clients with severe insulin resistance who struggle with extreme cravings for carbs/sugar or binge eating behaviors. This review may be helpful: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10532286/
Note that as a dietitian, it's not within my scope to discuss starting or stopping a medication – I refer them to their prescribing practitioner.

Does taking the birth control pill or being born to a mother who had a history of taking the pill increase the risk of developing PCOS?

I've never come across data on this. And one would assume that the pill was not in the mother's system by the time the placenta forms.

Are birth control pills recommended to treat PCOS symptoms?

Birth control pills are used as first-line treatment in PCOS. This may help lower risk for uterine cancer. However OCP do not address the upstream root causes of PCOS symptoms and may mask or worsen these root causes (insulin resistance, nutrient deficiencies, gut microbiome, hormone imbalances, etc). Again – I'm a RD – I don't prescribe meds.

Many of my clients ask me if they can use diet/weight loss supplements and not take oral contraceptives to manage PCOS. Thoughts?

Taking or not taking OCPs to manage PCOS or for contraceptive purposes is a highly personal decision to be made between the person being treated and their doctor.
If you're asking if it's possible to manage PCOS with nutrition / lifestyle / supplements and not medications, yes, in most cases. Sometimes medications are needed / warranted. For example, I find my college-aged or grad student clients prefer the ease and reassurance of being on an OCP. But that doesn't mean we ignore nutrition and lifestyle changes.

Surgery

Does oophorectomy improve symptoms and/or clinical markers?

It depends. If testosterone is the androgen that is high (versus DHEA), then possibly. Ovarian wedge resection is still used (albeit rarely) in PCOS and the surgery does not appear to impact cardiometabolic risks - https://pubmed.ncbi.nlm.nih.gov/37080084/
Additionally, PCOS does not go away after menopause, in fact, this is when most of the cardiometabolic risks and uterine cancer manifest.

MISC

What kind of issues might occur with gender-affirming care?

We absolutely need more studies in this area. There are some small studies suggesting that PCOS is actually more common in transgender individuals. We do not know the effects of exogenous androgens on PCOS symptoms or risk factors (eg, CVD risks), but one could assume that exogenous testosterone would increase these risks more. However, some of the PCOS symptoms that cis gender women find problematic may not be undesirable in the transgender population, such as masculinizing symptoms including deeper voice, facial and body hair growth, etc.

In women who suspect PCOS but are on the conventional methods of treatment, like spironolactone and birth control, to control their symptoms, how can they explore the possibility of a PCOS diagnosis? How does the suspicion of PCOS but an absence of a dx, change nutrition care for those patients?

Why would they be on medications for PCOS if they haven't been diagnosed with PCOS?
Unfortunately, on hormonal birth control, hormone testing is not going to be accurate – estrogen, progesterone, and testosterone will all be low. I'm a dietitian and I can't diagnose, so I'd refer to a gyn or endocrinologist if PCOS is suspected. As far as nutrition and lifestyle changes – if it walks like a duck and quacks like a duck, we treat it like a duck. If they have insulin resistance, we're going to focus on blood sugar balancing, etc. I have had patients inaccurately diagnosed with PCOS (for example type 2 diabetes & hypothyroidism) – we worked on balancing blood sugar, increasing nutrients, decreasing inflammation, etc.

I see stress and work as major drivers in patients who feel they struggle to find time to make changes. I know this is a universal concern. In PCOS, what first step do you recommend for women expected to work over 40+ hours a week with other obligations that minimize the impact on free time to cook or exercise and not end up sleeping 4 hours per night?

This is certainly a common concern among those who have jobs out of the home, family obligations, commutes, etc. I do talk about boundaries a lot with my clients, as well as work-life balance. Having them work on their own list of non-negotiables for health (eg, 7 hours of sleep, workout 4 days a week, pack lunch 4 days a week), then putting boundaries in place to make sure that they have time to spend to make that happen is important, delegating or letting go of non-essential tasks. Talking about "you can't fill from an empty cup" and "putting your own oxygen mask on first." For example, something I've found personally and my clients have also found to be true is that when you think you "don't have time" to exercise, that often is when you need it the most, since taking 30 minutes to exercise can increase mood, energy, and productivity, which has positive outcomes on their work. It's similar with eating well and getting enough sleep – making time for those healthy habits (non-negotiables) has far reaching impacts on their energy and their days and they ultimately find that "taking time" for healthy habits results in feeling better and getting more done.

Do all androgens cause hirsutism or only specific ones?

They all can (testosterone, DHEA, DHT). Of these DHT (dihydrotestosterone) is the strongest. High total levels may not result in increase in hirsutism in all people who have them – sex hormone binding globulin levels and androgen metabolism pathways can make some people less sensitive to their effects. Hirsutism can also be increased by genetic or ethnic factors in the presence of normal or low androgens.

Does pregnancy exacerbate or improve PCOS symptoms?

Most people with PCOS report feeling “the best they ever have” during pregnancy. The high estrogen and progesterone levels make them feel more “normal.” However, the cardiometabolic risks with PCOS can be exacerbated during pregnancy, with increased risk for high blood pressure, gestational diabetes, etc. Postpartum, when hormone levels return to baseline, is often a very difficult transition for people with PCOS.

Should someone with Hashimoto's thyroiditis as well as ovarian cysts see a specialist rather than basic OBGYN care?

They should absolutely be under the care of, at minimum, a PCP, a GYN, and an endocrinologist. Then nutrition support and other allied health practitioners as needed.

Is there a male version of PCOS to look out for?

There does appear to be a familial link with PCOS, and brothers of women who have PCOS appear to have more metabolic dysregulation: https://pubmed.ncbi.nlm.nih.gov/18332151/

I believe the speaker said that a large breakfast will result in lower testosterone levels- Female conditions aside -Does that a male patient therefore should avoid a large morning meal because that would make his testosterone levels drop ? And how significant of a change in hormone levels is it?

This study was specifically done in women with PCOS. According to basic principles of research, we cannot extrapolate these results to males without the condition. Here’s the study, if you’re interested: https://pubmed.ncbi.nlm.nih.gov/23688334/

Financial support for this presentation was provided by Orgain.