JANUARY - FEBRUARY 2017 | VOLUME 2 | ISSUE 1

PCOS CONFIDENCE GRANT

HEALTHY EATING

PCOS FRIENDLY SNACK IDEAS, EVENT HIGHLIGHTS AND MORE!

A NEW WAY TO EAT FOR INSULIN RESISTANCE

FOR WOMEN With Pcos

EXERCISES

TO IMPROVE PCOS

ARE YOU AT RISK FOR HEART DISEASE ASSOCIATED WITH PCOS?

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LETTER FROM THE EXECUTIVE DIRECTOR

For far too long, the system has been broken for women and girls with polycystic ovary syndrome (PCOS), leading to major health disparities and increased health risks such as infertility, type 2 diabetes, cardiovascular disease and endometrial cancer. Many doctors are missing the diagnosis, leaving patients without appropriate care and treatment. To compound the problem, PCOS support and awareness organizations are severely and disproportionately underfunded, receiving less than 0.1 percent of the government, foundation, corporate and community funding that other major health conditions receive. The lack of funding extends into PCOS research, stifling advancements and the number of young investigators entering the field.

Through the PCOS Awareness Symposia and our other efforts, we have taken a leadership role in addressing PCOS education and healthcare gaps as well as the expressed needs of tens-of-thousands of patients. PCOS Challenge has surveyed over 40,000 women and it is clear that there are serious and systemic problems in healthcare regarding PCOS diagnosis, treatment and support. These problems are compounded by the general lack of awareness and education about the condition, particularly among those who are responsible for protecting public health, making funding decisions and those who are in a position to influence healthcare policy.

At PCOS Challenge, we believe that when there is a need and we have the ability to make a difference, we must show leadership and act. We believe that young girls and women have the right to quality care and support for managing PCOS. We also believe that increased education for healthcare providers and the general public are key for early intervention and helping family members become the first line of defense against PCOS.

For the past eight years, PCOS Challenge has been the leading organization supporting and advancing the cause of women and girls with PCOS through television and radio programming, live events, support groups, health screenings, grants and advocacy efforts. We have been increasing public awareness about PCOS through national and local media stories; connecting thousands of



women around PCOS awareness, education and research activities; helping healthcare providers address education and practice gaps around PCOS; and engaging the business and healthcare communities to prioritize and begin supporting more PCOS programs.

LOOKING AHEAD - PCOS AWARENESS, EDUCATION, ADVOCACY AND RESEARCH

We plan to do more great things in 2017 and beyond including offering symposia, runs/walks and other awareness and fundraising activities as well as spearheading legislative advocacy efforts. Other future plans include PCOS research and establishing additional grants to help with fertility, weight loss, mental health and other PCOS related conditions. We are changing the future for women with PCOS, but there is much work to be done. Your support of PCOS Challenge as a donor and volunteer will be critical to helping us advocate and provide more education and support resources for the millions of women and families affected by PCOS. With your support, we will continue to lay the foundation for a world class awareness, education, advocacy and research infrastructure for PCOS as exists with other major health conditions. The time is now! Let us join together and lead the effort for national and global change.

In good health,

Sasha Ottey

Founder & Executive Director PCOS Challenge, Inc. 501(c)(3) Public Charity

FEATURED ARTICLE THE FOOD INSULIN DEMAND AND PCOS

By Fiona McCulloch BSc ND

s women with PCOS, we are all too aware of the effects of insulin resistance on our bodies. Elevated levels of insulin are associated with increased androgen production and difficulty in losing weight, as well as increased weight gain.

WHAT DOES INSULIN DO IN OUR BODIES?

Women have most likely been affected by PCOS as a disease for a very long time. However, it wasn't until a French physician reported the appearance of polycystic ovaries in the mid 1800's that brought it to the attention of the medical community. Gradually more reports surfaced including surgical recommendations for treatment, most notably the "wedge resection", in which wedgeshaped portions of the ovaries were removed. In 1935 Stein and Leventhal, two gynecologists from Chicago, described the symptoms of PCOS (immediately named the Stein-Leventhal Syndrome), and noticed that they disappeared, at least for a while, after the wedge resections were done. These patients were for the most part overweight, infertile, hirsute and had a lack of periods. Since those reports many if not most physicians, until recently, have thought of PCOS in this way. There are, however, a significant number of patients who are not overweight, or may have one or a few of these symptoms. In 1990, an NIH consensus conference defined PCOS as the finding of elevated androgens and impaired (irregular) ovulation when the hormonal diseases of congenital adrenal hyperplasia (an inherited enzyme disorder), elevated prolactin, thyroid disease and Cushing's syndrome were excluded.

WHAT CAUSES THE RELEASE OF INSULIN?

Whenever our blood sugar rises after a meal, the pancreas responds by releasing insulin to manage it. Therefore, anything that causes a rise in blood sugar will cause a rise in insulin as well.

Carbohydrates are well-known for spiking blood sugar levels, so it makes sense that they also cause significant insulin release. What many people don't know is that some protein-rich foods can spike insulin levels just as much as carbohydrates, or even more!

WHAT IS INSULIN RESISTANCE?

Insulin resistance is a state where our cells are less sensitive to the actions of insulin. Insulin resistance occurs whenever we gain weight, or when excess energy is provided to our cells long term causing dysfunction of our fat cells that results in inflammation. Women with PCOS develop insulin resistance far more easily than other women. The pancreas then has to produce larger amounts of insulin to compensate as its main goal is to stop blood sugar levels from becoming too high. The end result is that most women with PCOS have higher amounts of insulin floating around in the bloodstream after they eat, between meals, and even fasting at night.

SIGNS OF INSULIN RESISTANCE IN PCOS

The most typical signs include abdominal weight gain and significant difficulty in losing weight. Weight loss resistance happens guickly as high levels of insulin block fat breakdown.

In women with PCOS, the ovaries never become insulin resistant like other tissues do, and overproduce testosterone when exposed to high levels of insulin. This can block ovulation, and cause symptoms including hirsutism, cystic acne, and hair loss.

Other skin-related signs of insulin resistance include skin tags, and dark pigmentation in the skin folds known as acanthosis nigricans (often most easily seen at base of the back part of the neck).

The best testing for insulin resistance are not typically the tests for diabetes, although if HBA1C is elevated this is a sure sign of this condition being more advanced. That said, detecting insulin resistance earlier is certainly possible by testing fasting insulin, fasting glucose and calculating HOMA-IR or QUICKI.

Even more sensitive than this, is an insulin glucose challenge test which is similar to a glucose tolerance test, but which also measures insulin levels first fasting and then after a sugary drink. Women with PCOS often show unusual patterns of insulin secretion, higher glucose stimulated insulin levels, or exaggerated drops in blood sugar.

A NEW WAY TO EAT FOR INSULIN RESISTANCE

Fortunately, a new dietary scale – the insulin index - is here to help us in our battle against insulin resistance. You've all likely heard of the glycemic index, which is a measure of how much a food we eat raises blood sugar levels – the glycemic index has long been helpful for women with PCOS but since it only measures the effects of carbohydrates it has certain limits.

The insulin index does more - it tells us about how much a consumed food raises insulin levels and it includes carbohydrates, proteins, fats and combinations of foods. Most of the research on the insulin index has been conducted by the same team at the University of Sydney who developed much of what we know about the glycemic index. As a result, evidence for the insulin index sits atop many years of intensive research in nutrition and in many ways.

FOODS THAT SPIKE INSULIN – UNLIKELY CULPRITS

Foods that are high on the glycemic index are also high on the insulin index – which comes as no surprise since insulin is released in response to increases in blood sugar.

The opposite isn't true – in fact, some of the highest foods on the insulin index are in fact very low on the glycemic index, and don't raise blood sugar levels much at all.

Dairy foods contain protein building blocks called branched-chain amino acids which enter the bloodstream rapidly and cause a surge of insulin release.

Most people are shocked to learn that low fat yogurt provokes more insulin release than two slices of white bread! Some other foods may surprise you as well - beef spikes insulin levels more than chicken, and whey protein powder is one of the highest foods on the insulin index.

MORE ABOUT DR. FIONA

Dr. Fiona McCulloch is one of the leading naturopathic physicians specializing in PCOS. She has been in naturopathic practice since 2001, after graduating from the Canadian College of Naturopathic Medi-



cine and the University of Guelph (Biological Science). In 2002, Dr. Fiona founded White Lotus Naturopathic Clinic and Integrated Health. She author of 8 Steps to Reverse Your PCOS and is the Naturopathic Doctor advisor to IVF.ca, Canada's premier online fertility community. Her research based blog is featured by the American College for Advancement in Medicine. Her articles on the naturopathic treatment of autoimmune infertility and luteal phase defect were published in NDNR, one of the leading journals for naturopathic doctors and she has presented to other health care professionals on evidence-based acupuncture and fertility treatment. In the media, Dr. Fiona was featured in an hour long special on natural fertility on Wylde on Health, has appeared on A Channel News, a CBC Documentary, and has been interviewed by FLARE and Wish magazines.

DrFionaND.com

READ PART TWO OF ARTICLE

Continued on page 4...

HEALTH PERSPECTIVE

THE FOOD INSULIN DEMAND AND PCOS

By Fiona McCulloch BSc ND



Article continued from page 3...

FOOD INSULIN DEMAND

The insulin index tells us how much insulin will be released for 239 calories of a food. The food insulin demand (FID), a related index, gives us the amount of insulin that we release after eating a certain quantity of a given food – an exceptionally useful tool we can use to plan meals.

An example of a meal based on the food insulin demand for a woman with significant insulin resistance who has been recommended approximately 50 points or less for dinner (a typical recommendation for someone who is significantly insulin resistant).

MACRONUTRIENT	CHOICE	FOOD INSULIN DEMAND
Protein	4.5 oz of roast chicken breast	20
Non-Starchy Vegetables	Two cups of leafy green vegetables such as spinach, collards or kale	0
Healthy Fats	One half of an avocado	4
Carbohydrate	One half of a small sweet potato	19
	TOTAL	43

This plan doesn't have to be exact, and is just about making the right choices on a regular basis. We typically recommend eating like this 90% of the time. This makes it easier to sustain long-term as it eliminates restriction and dieting and keeps the focus on knowing how to combine food and prepare meals that support healthy metabolism and blood sugar regulation long-term.

To learn more about your own unique level of insulin resistance, we invite you to take the insulin resistance quiz.

Click Here to Take the Insulin Resistance Quiz

INSULIN COUNTS OF A FEW COMMONLY CONSUMED FOODS, HEALTHY AND OTHERWISE, IN THE STANDARD AMERICAN DIET.

FOOD	QUANTITY	FOOD INSULIN DEMAND
Chicken	130 grams (4.5 oz)	20
Grilled Lean Beef Steak	130 grams	30
White Fish	130 grams	17
Navy Beans	1/2 cup	11
Poached Eggs	2 large	14
Shrimp	7 shrimp	4
White Bread	2 slices	52
White Rice	1 cup	46
Butternut Squash	1 cup	37
Sweet Potato	1 small (120 grams)	37
Low Fat Blueberry Muffin	1 muffin (170 grams)	116
Pancake	100 gram pancake	83
Low Fat Fruit Yogurt	175 gram container	57
Low Fat Cottage Cheese	1 cup	42
Skim Milk	1 cup	21
Avocado	1⁄4	4
Olive or Coconut oil	1 tbsp	2
Walnuts	¼ cup	4
Peanuts	¼ cup	12
Banana	1 medium	25
Orange	1 medium	11
Apple	1 medium	15
Berries	1 cup	2
Broccoli	1 cup	3
Cauliflower	1 cup	6
Leafy Green Vegetables	1 cup	0

OPINION-EDITORIAL

NEW DISCOVERY COULD HELP DIAGNOSE AND TREAT PCOS IN TEENS, EARLIER

By Wendy Watson

Tew PCOS research from Greece, makes it easier to identify PCOS in young women, sooner. The findings could mean improved quality of life and better chance of pregnancy for those who live with the disorder, by enabling patients to find solutions that work for them, earlier.

Many women suffer the symptoms of PCOS-related hormone imbalances for years and only receive a diagnosis after trying, unsuccessfully, to become pregnant. Diagnosing PCOS is not straightforward, especially in teens who are experiencing the hormonal changes of puberty. Irregular periods may be one of the first signs of potential PCOS, but in teens, irregular periods are all too common even without the presence of PCOS. Doctors want to ensure teens with PCOS get the help they need, but they also want to avoid unnecessary treatments for misdiagnosed young women. Now the latest research may help create a simple blood test that can confirm PCOS in teen girls, and it may also lead to innovative PCOS treatments. for confirming a condition so difficult to diagnose in young

Greek researchers recently announced their findings after studying teen girls with and without a confirmed PCOS diagnosis. Other studies had identified a new hormone released by muscles, called irisin, which helps regulate energy metabolism. It turns out adults with PCOS have unusually high levels of this irisin hormone, so the researchers suspected the hormone could act as a signal that a woman has PCOS. When the researchers tested the blood of teen girls with and without PCOS, they discovered higher levels of the male sex hormone, testosterone, in the girls with PCOS. This is not surprising since PCOS is associated with high testosterone, although puberty can also also affect that particular hormone. However, the girls in the study with PCOS also had high levels of the new hormone, irisin. Although testosterone levels can fluctuate in teens, the presence of high irisin levels as well could help confirm a PCOS diagnosis, the researchers believe.

The researchers caution that this is just a small, initial study, and that further research would need to confirm their results. As well, scientists would need to determine exactly what role irisin plays in PCOS.

MORF ABOUT WENDY

A fellow PCOS "soul cyster" and University of Manitoba Health Studies graduate, Wendy Watson is both managing contributor and co-founder at FertilityDrugsOnline.com – a prescription referral service, connecting U.S. patients with quality brand name fertility medications at up to 85% off regular U.S. prices (and free U.S. shipping). Wendy lives in Winnipeg, Manitoba with her husband, one very active toddler, Gracie, and their 2 feline fur-babies, Betsy & Moe.

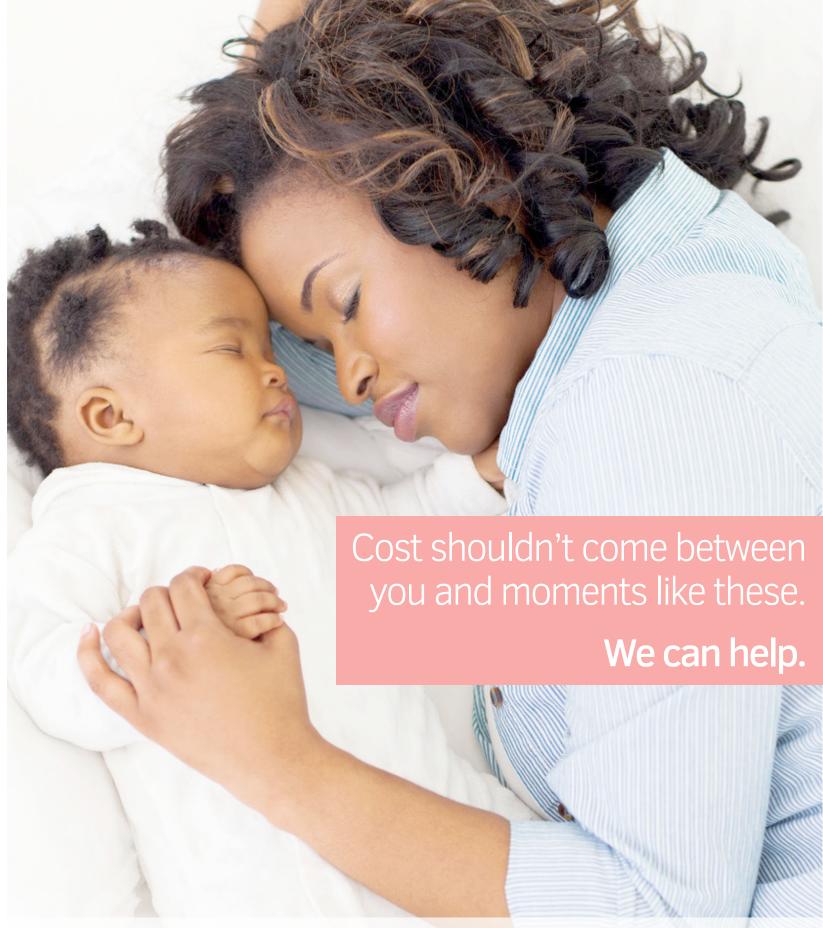
FertilityDrugsOnline.com

Although doctors will not immediately turn to irisin tests to confirm a PCOS diagnosis, the findings are promising women.symptoms to flare up and make TTC even harder, so finding ways to de-stress your life can make a difference.

Also talk to your doctors, they may not always know everything, but they may just have an idea that you haven't thought about or tried yet. And don't forget the power of a healthy diet and exercise. Your body is going to be home to your baby for 40 weeks, you want your body to be the best home you can give your child, to give him or her the best shot at life. So treat your body well.

If irisin turns out to play an important role in PCOS, it could also hold potential for future drugs to manage the condition. These drugs could potentially reduce irisin levels or block its effect, depending on what future research uncovers about the link between irisin and PCOS.

Catching the presence of PCOS early can help young women manage their symptoms and prepare, physically and mentally, for a lifetime of PCOS challenges. Knowing they have PCOS can encourage young women to make lifestyle changes, reducing their chance of developing complications such as type-2 diabetes. The confirmed diagnosis can also prepare teens mentally for future challenges like difficulty conceiving. If an irisin blood test becomes available, it would be a helpful tool for doctors to diagnose their PCOS patients, long before difficulty conceiving signals that something may be wrong.



PCOS comes with enough obstacles; fertility expenses shouldn't be one of them. We offer help and hope. Save up to 85% on fertility medications, with free U.S. shipping rates & no co-pays. Quality & safety assured. Visit fertilitydrugsonline.com | Call 1-888-327-1330

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HEALTH AWARENESS

Cervical Health Awareness Month

(January)

Thyroid Awareness Month

(January)

National Birth Defects Prevention Month

(January)

American Heart Month

(February)

World Cancer Day

(February 4)

National "Wear Red" Day for Women's Heart Health (February 5)

Eating Disorders Awareness and Screening Week

(February 26 - March 4)

Want to be a part of PCOS Challenge? Click Here to Join.

8 STEPS TO REVERSE YOUR PCOS

A Proven Program to Reset Your Hormones, Repair Your Metabolism, and Restore Your Fertility

In this new encyclopedic handbook for women with PCOS, Dr. Fiona McCulloch dives deep into the science underlying the mysteries of the condition, offering the newest research and discoveries and a detailed array of treatment options. 8 Steps to Reverse your PCOS gives you the knowledge to take charge of your PCOS-related health concerns addressing hair loss, acne, hirsutism, irregular menstrual cycles, weight gain, and infertility.

A Proven Program to Reset Your Hormones, Repair Your Metabolism, a pestore Your Fertility

8 STEPS TO REVERSE YOUR PCOS

Available on amazon.com

Dr. McCulloch introduces the key health factors that must be addressed to reverse PCOS. Through quizzes, symptom checklists, and lab tests, she'll guide you in identifying which of the factors are present and what you can do to treat them. You'll have a clear path to health with the help of this unique, step-by-step natural medicine system to heal your PCOS.

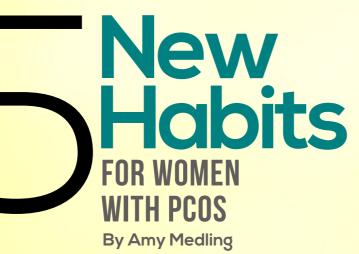






HEALTH AND WELLNESS

NOT YOUR AVERAGE RESOLUTION:



66% of people who make resolutions resolve to lose weight and exercise. Only 27% of those people will succeed. Why? There are many reasons, but likely, they approached it as a goal, not as a permanent lifestyle change.

If you are ready to get healthy and take control of your PCOS this year, I encourage you to embrace the philosophy of mindful and holistic healing through proactive lifestyle choices.

Don't resolve to diet and break your neck at the gym. Resolve to value yourself. Make little choices throughout the day that improve your life and allow you to thrive.Little choices become critical habits.

Here are the five habits I would love to see every woman with PCOS embrace in 2017:

Drink lemon water.

Begin each day with a cup of warm water with half a lemon squeezed in. Why? Water will rehydrate you, detoxify your cells, stimulate your organs, and get your body ready for all the good things you'll be doing. Lemon water, in particular, will help cleanse your blood, improve brain function, ease aches and pains, aid digestion and fight illness! It is a simple habit to embrace, and you will be surprised at how starting your day off with this tiny step will improve your health and outlook on the day!



Move it.

Nearly everyone resolves to join a gym and exercise starting January 1st. Please don't do that. Instead, commit to moving every day. You don't have to run 5 miles a day or take a group exercise class that you hate in order to be healthy. Simply find movement you enjoy and do it!

Walk with a friend at lunch, try gentle yoga, take a bike ride, ice skate, garden, chase your kids- whatever you chose to do, just do it with joy and embrace that time. If you enjoy more intense movement, try HIIT (interval training). It is more effective than old-fashioned cardio and takes much less time!

Eat healthy fats.

Fat has become a bad word in our culture, but, in fact, our bodies require certain fats in order to function. Specifically, women with PCOS need to add polyunsaturated fats and omega-3s to your diet. These fats will help moderate your cholesterol, fight inflammation and lower blood pressure. Keep it simple; just add some nuts, seeds, avocado, and fatty fish (albacore tuna, salmon, mackerel, and sardines) to your diet while eliminating trans-fats (anything hydrogenated). Trade in sour cream dip for hummus or guacamole and use veggies to dip. Upgrade your salad dressing. In a study published in the American Journal of Clinical Nutrition in 2004, people who consumed salads with fat-free salad dressing absorbed far less of the helpful phytonutrients and vitamins from spinach, lettuce, tomatoes and carrots than those who consumed their salads with a salad dressing containing fat. Olive oil is a very healthy fat for women with PCOS. It is a much better choice than storebought dressings that are typically made with soy bean oil.

Sav "no" and mean it.

Habitually saying "no" when you want to say "no" is among the most freeing and unselfish things that you can do for yourself. It is critical for your health and that of those around you to say "yes" to the things that you feel compelled to do. Say "yes" to the things that make you happy, that give you enjoyment, that benefit you, that contribute positively to your health or add meaning to your life. Life is too full of things that we can't choose to say "yes" or "no" to-so we need to make all of our other time count. Start spending more time saying "no" and less time regretting decisions. Setting boundaries is not only empowering, it's necessary to your wellbeing and channeling your energy into what truly matters to you.

"Tap" into stress reduction.

The Emotional Freedom Technique (EFT), otherwise known as "tapping" is a specific algorithm for literally tapping on energy meridian endpoints which sends a calming response to the body and the brain (amygdala) recognizes that it's safe. To take it one step further, doing the tapping while imaging or discussing a stressful event counteracts that stress and reprograms the body's response to it. When you focus on your stressor while you tap on the energy meridian endpoints or acupressure points, you will find that you can have the same thought but without having the physical anxiety. This is critical because it allows you to easily let go of whatever stressor or negative thought is bothering you by replacing it with a much more empowering thought. This tapping technique can be used for a variety of issues from anxiety to chronic pain, increasing fertility, overcoming addiction, fear, weight control, stress reduction and so much more. So, start tapping your way to health.

Obviously, there is more to treating PCOS than these 5 tips, but try them, and I know that you will find that these little changes swing big doors. Taking care of yourself in small ways opens you up to the possibilities that lie ahead as you continue to make lifestyle changes that help you to thrive!



MORE ABOUT AMY

Amy Medling, CHC, is the founder of PCOSDiva.com, an online resource dedicated to helping women understand and manage the symptoms associated with Polycystic Ovarian Syndrome (PCOS). She studied holistic nutrition at the Institute of Integrative Nutrition and is a Certified Health Coach. PCOS Diva teaches women to relieve and control PCOS symptoms using a proven treatment plan that encourages whole food, natural remedies, supplements, exercise, self-care, positive thinking and stress reduction. Amy's goal is to coach other women with PCOS, to find a body, mind and spirit balance that will have them proclaiming, "I'm a PCOS Diva too!"

PCOSDiva.com

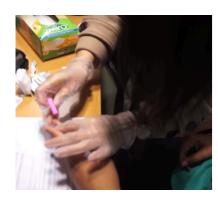
THE HUGE IMPACT OF YOUR SUPPORT



SUPPORT PROGRAMS

PROVIDES ANSWERS, RESOURCES AND ONGOING SUPPORT

• Helps fund online and offline support programs that over 40,000 women and girls depend on to help overcome their symptoms and reduce their risk for life-threatening related diseases.



LIVE EDUCATION

ADDRESSES GAPS RELATED TO CARE AND TREATMENT

 Helps provide vital live educational programs for over 1,000 patients and healthcare professionals accross the U.S. each year. These programs address seven identified education and healthcare practice gaps adversely impacting millions of women and girls with PCOS.

HEALTH SCREENINGS

HELPS SAVE LIVES

 Women with PCOS constitute the largest group of women at risk for type 2 diabetes and cardiovascular disease. Your support helps provide health screenings to identify and reduce PCOS patients' risk of type 2 diabetes, cardiovascular disease and stroke.



GRANTS & RESEARCH Improves access, care and quality of life

- Helps PCOS Challenge provide grants for women and girls with PCOS in medical and financial need to assist with the costs of services not covered by insurance such as nutrtion counseling, fertility treatments and hair and skin treatments.
- PCOS Challenge is partnered with many of the leading PCOS research centers globally. Your support helps with recruiting and important research efforts.



HOPE

FOR

BECOME A HOPE FOR PCOS MONTHLY DONOR

For as little as \$5 or \$10 a month, you can make a difference in the fight against Polycystic Ovary Syndrome by supporting PCOS awareness, education, advocacy and research efforts. As a HOPE for PCOS monthly donor, you provide much needed financial support to programs that women with PCOS depend on to help overcome their symptoms and reduce their increased risk for life-threatening related diseases including cancer, diabetes and cardiovascular disease.

Monthly donations of all sizes are welcome and greatly appreciated!

GIVE TODAY AT PCOSCHALLENGE.ORG/DONATE

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PCOS CHALLENGE EVENTS

CHANGING THE FUTURE FOR WOMEN & **GIRLS WITH POLYCYSTIC OVARY SYNDROME**

ANOTHER HISTORIC YEAR FOR PCOS AWARENESS. EDUCATION AND ADVOCACY

In 2016, PCOS Challenge expanded its national PCOS Awareness events to include both regional symposia and a 5K Run/Walk.

Its life-changing PCOS Awareness Symposia in Philadelphia and Atlanta brought together some of the world's leading experts on polycystic ovary syndrome to educate nearly 1,000 women and girls with PCOS, their supporters and healthcare professionals. Registered nurses, physicians, dietitians, electrologists and medical students all came to show their support and to gain valuable knowledge from the field's top researchers and clinicians in an effort to improve outcomes and quality of care for women with PCOS. The PCOS Challenge events were mentioned by hundreds of media outlets including ABC, NBC, CBS and FOX affiliates across the country.

MAKING A DIFFERENCE

The PCOS Awareness Symposia are raising the profile of PCOS and directly impacting the lives of over a thousand women and girls each year. The symposia assists those affected by PCOS in learning more about the disorder, treatment options and how to minimize related health risks. The symposia present some of the latest research and best practices for improving health outcomes and reducing PCOS patients' risk for life-threatening related diseases such as type 2 diabetes and cardiovascular disease. The events also promote the importance of healthy lifestyle changes and adherence to prescribed treatments and medications to reduce avoidable emergency room visits, hospitalizations and deaths from complications due to PCOS related diseases. The PCOS symposia provide vital health information to girls and women with the condition, many of whom would otherwise have little to no access to evidence based information about the condition or healthcare professionals who specialize in PCOS.

FOR PATIENTS

MAKE POLYCYSTIC OVARY SYNDROME A PUBLIC HEALTH PRIORITY

For patients, the PCOS Challenge symposia help women and girls affected by the condition become proactive about their health and discover strategies and resources to help overcome their symptoms and reduce their risk for life-threatening related diseases. The PCOS symposia also include limited health screenings to help identify and reduce attendees' risk of type 2 diabetes, cardiovascular disease and stroke.

FOR HEALTHCARE PROVIDERS

For healthcare providers, the PCOS symposia are helping to improve competence in the field of PCOS and address seven identified education and practice gaps. The symposia are helping to improve performance related to quality of care for women and adolescents with PCOS and patient outcomes.



"We are both delighted and amazed that people have traveled from over 30 states and all over the world including Italy, Spain, Costa Rica and New Zealand to attend our symposia. This level of interest shows that there is an urgent global need for more support and educational resources to help girls and women with PCOS. It also speaks to the larger problem of the lack of prioritization that women's health issues receive. Polycystic ovary syndrome is one of the most common human disorders and the most common hormone disorder in women. Yet, the lack of awareness and education surrounding the condition, even in the healthcare community, is astounding and dangerous. PCOS Challenge is working with healthcare leaders and advocates to change this." says Sasha Ottey, Founder and Executive Director of PCOS Challenge, Inc.



PCOS AWARENESS SYMPOSIA 2016 - PHILADELPHIA AND ATLANTA

EDUCATING 1,000 PATIENTS AND HEALTHCARE PROFESSIONALS



















PCOS AWARENESS SYMPOSIUM - PHILADELPHIA PRESENTING SPONSOR:



HOME OF SIDNEY KIMMEL MEDICAL COLLEGE

Marking one of the largest PCOS Awareness Symposia to date, the Philadelphia symposium at Thomas Jefferson University quickly sold out with more than 420 patient attendees, over 40 health care professionals and a waiting list of over 100 people.



VIEW HIGHLIGHT VIDEO













PCOS AWARENESS SYMPOSIUM - ATLANTA HOST ORGANIZATION:



PCOS Awareness Weekend 2016 was hosted by Omega Phi Alpha National Service Sorority. The events included the Southern Regional PCOS Awareness Symposium and the Bolt for PCOS 5K Run/Walk at the Georgia Institute of Technology in Atlanta. Over 500 people participated in the weekend's events.









VIEW HIGHLIGHT VIDEO

BOLT FOR PCOS 5K RUN/WALK



BOLT FOR PCOS 5K/RUN WALK HOST ORGANIZATION:

OMEGA PHI ALPHA

The Bolt for PCOS 5K Run/Walk was the second major event during PCOS Awareness Weekend 2016 in Atlanta. The Bolt for PCOS 5K event is hosted by Omega Phi Alpha National Service Sorority and benefits PCOS Challenge, Inc. It is the largest event in the U.S. dedicated to raising awareness and funds to help fight polycystic ovary syndrome. During the Bolt for PCOS event, Omega Phi Alpha and PCOS Challenge raised over \$36,000. Proceeds from the Bolt for PCOS event go toward PCOS research, health screenings, grants, education and support programs, as well as increasing awareness and public support for those with the condition.



THANK YOU TO ALL OUR SUPPORTERS

We are grateful to Omega Phi Alpha National Service Sorority, Thomas Jefferson University and all our event sponsors, presenters, donors and volunteers for your national leadership on PCOS and commitment to women's health. There are people and organizations that talk about change and there are those who really move the needle when it comes to PCOS awareness, education, support and research. You all are true champions for women and girls with PCOS. Thank you!"

- SASHA OTTEY, EXECUTIVE DIRECTOR PCOS CHALLENGE INC.

THANK YOU FOR YOUR SUPPORT!

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MAKING A DIFFERENCE - 2016 HONORS

OMEGA PHI ALPHA NATIONAL SERVICE SORORITY - NU CHAPTER PCOS CHALLENGE COMMUNITY SERVICE AWARD



The PCOS Challenge Community Service Award recognizes individuals and service organizations for their outstanding leadership and exemplary service in addressing polycystic ovary syndrome (PCOS). The award honors those individuals and service organizations making a significant difference in the lives of women and girls with PCOS and that support PCOS awareness and education efforts.

The sisters of Omega Phi Alpha are so thankful to have been given the opportunity to partner with PCOS Challenge, Inc. in hosting the first ever PCOS Awareness Weekend. It was such an honor to receive the PCOS Challenge Community Service Award, as service is one of our sorority's cardinal principles. PCOS awareness has been our main philanthropy for eight years now, and we are so grateful to be able to expand this event and further touch the lives of those affected by PCOS."

> — Courtney Shirley President, Omega Phi Alpha Service Sorority - Nu Chapter

THOMAS JEFFERSON UNIVERSITY PCOS CHALLENGE SOCIAL RESPONSIBILITY AWARD



The PCOS Challenge Social Responsibility Award recognizes corporations, health systems and universities for their outstanding leadership and exemplary service in addressing Ppolycystic ovary syndrome (PCOS). The award honors those organizations making a significant difference in the lives of women and girls with PCOS and that support PCOS awareness and education efforts.

Thomas Jefferson University has always been a national healthcare leader, especially on issues of such importance to women's health. We are proud to partner with PCOS Challenge to put on the PCOS Awareness Symposium in Philadelphia. This is a much needed event for the northeast region. PCOS is an underserved area of women's health that deserves significantly more attention. We hope that other leaders will join us to help improve the lives of those affected."

— Katherine Sherif, MD

Director, Jefferson Women's Primary Care

ASHELY LEVINSON RICARDO AZZIZ PCOS CHALLENGE ADVOCACY LEADERSHIP AWARD



The Ricardo Azziz PCOS Challenge Advocacy Leadership Award recognizes individuals who have demonstrated extraordinary dedication to advocacy and public policy efforts that expand access to resources and support for women and girls with polycystic ovary syndrome (PCOS), one of the most neglected, underfunded and underdiagnosed areas of health. PCOS Challenge named the advocacy leadership award in honor of Dr. Ricardo Azziz, an international authority on polycystic ovary syndrome and one of the country's most impactful advocates for the PCOS patient community.

For over 15 years, Ashley Levinson has been advocating for better education and awareness for women and girls with polycystic ovary syndrome through various organizations. She has also increased public awareness through national media campaigns including her story featured on Mystery Diagnosis for Discovery Health Channel. Her current venture is as Founder of The PCOS #LemonFaceChallenge, a viral campaign aimed at raising public awareness of polycystic ovary syndrome.

I am so grateful and honored to be this year's recipient of The Ricardo Azziz PCOS Challenge Advocacy Leadership Award. This award helps continue to push awareness forward by recognizing advocates like myself, which promotes engagement with patients to create better resources, funding and education for the syndrome." — Ashley Levinson

WE NEED

TOGETHER WE CAN CHANGE THE FUTURE FOR WOMEN WITH PCOS



PCOS Challenge needs your leadership, skills, talent and passion to continue our mission and advocate on behalf of women with PCOS. We have both "virtual" volunteer opportunities and opportunities in the Atlanta metro area. Virtual positions are open to individuals nationally and can be done online, by phone or email. Some of the areas where we need immediate volunteers include sales and fundraising, graphic design, publicity, volunteer

management, and event planning and management.

VOLUNTEER

BRILLIANT THE PASSIONATE CREATIVE **AMAZING!**

VOLUNTEER WITH PCOS CHALLENGE

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PCOSCHALLENGE



CLICK HERE TO LISTEN PCOS AND CARDIOVASCULAR HEALTH: OW TO PROTECT YOUR HEAR

PCOS AND CARDIOVASCULAR HEALTH: **HOW TO PROTECT YOUR HEART**

Women with polycystic ovary syndrome constitute the largest group of women at risk for developing cardiovascular disease.

Dr. Katherine Sherif, Director of Jefferson Women's Primary Care, discusses ways women with PCOS can prevent and manage cardiovascular disease and improve their heart health.







PCOS IN GIRLS AND ADOLESCENTS

M. Tracy Bekx, MD discusses PCOS in girls and women: getting diagnosed, treated and managing health to prevent other illnesses

Dr. Bekx is a pediatric endocrinologist who specializes in Adolescent Polycystic Ovary Syndrome (PCOS) and Pediatric Diabetes Care. She is co-founder of the Adolescent Multidisciplinary PCOS Clinic at the University of Wisconsin in Madison.

ANSWERS FOR LEAN WOMEN WITH PCOS

Much of the information about PCOS focuses on weight loss, but what if you are a lean woman with PCOS?

Dr. Daniel Dumesic joins the PCOS Challenge radio show to speak about lean women with PCOS. Dr. Dumesic discusses PCOS diagnostic challenges related to lean women and how body fat distribution affects risks for metabolic and reproductive

Dr. Dumesic is Professor and Division Chief of Reproductive Endocrinology and Infertility in the Department of Obstetrics and Gynecology at the University of California, Los Angeles.



PCOSDiva

laser hair removal or electrolysis.

Learn more at PCOSChallenge.org/confidence

PCOS Challenge Thanks the Organizations Supporting the PCOS Confidence Grant







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PCOS ♥ POSITIVITY

25

MAKING A DIFFERENCE

PCOS Confidence GRANT PCOSDiva pcoschallenge

MEET THE FIRST PCOS CONFIDENCE GRANT AWARDEES GINA L. **ELECTROLYSIS - GRANT MATCHED BY Electrology**



As someone who has been working to support myself financially since a very young age, the opportunity to receive this grant has honestly changed my life. After being diagnosed with PCOS, and dealing with the effects on my face, body and overall health, I was at a pretty low point in my life. With school loans and a lack of money, I considered going into more debt and get more loans in order to receive electrolysis. The hair growth had that much of an effect on my life. I found myself backing away from conversations with people when they were too close to my face. I constantly wore my hair down, and pushed it over my face as much as possible. I chose my outfits based on what would cover my shoulders and face the most. My daily routine truly revolved around my hair growth. I received word of receiving the grant on my birthday, and shortly after, found out that the American Electrology Association was matching the grant amount. Since that time, I have been a healthier and happier me! Within a few weeks of beginning my electrolysis treatments, I noticed results. I am now confident enough to work closely with co-workers, pull hair away from my face, and look at my face without feeling ashamed of how I look. My life has truly changed for the better, and I owe it all to PCOS Challenge, the American Electrology Association, and PCOS Diva. Thank you so much for changing my life!"

CAROLINA V. ELECTROLYSIS - GRANT MATCHED BY Electrology



Having been diagnosed at a young age with PCOS, I was told that there wasn't anything I could do to improve the PCOS symptoms I was experiencing. Western medicine doctors told me that it was something I had to live with. For many years I accepted that I was powerless and felt like a victim to PCOS. I decided to take back my power. I began doing research and talking to other medical professionals and with the help of PCOS Challenge, I started to change my diet and daily movement as well as taking supplements to improve my health. This has made me feel better physically as well as psychologically. The Confidence Grant is the first time I have felt like there was a community dedicated to helping women who are battling this often silent yet difficult disorder. After so much time, I finally feel like I have some support and assistance in treating my PCOS. By being chosen to receive this grant, I have been able to address one of the most frustrating symptoms of this disorder. I have been getting electrolysis permanent hair removal treatment on my face and neck. I now feel more confident and in control of my PCOS. I am so grateful!"

PCOS DIVA/PCOS CHALLENGE CONFIDENCE GRANT

Confidence Grant has allowed me to improve my emotional while I conquer PCOS."





PCOS Confidence Grant recipient Gabrielle speaks at the 2016 PCOS Awareness Symposium in Atlanta.

GABRIELLE G. LASER HAIR REMOVAL - GRANT MATCHED BY 3 HAR LEY

Hirsutism has been an emotional side effect of Polycystic Ovarian Syndrome (PCOS) for me. I affectionately referred to my chin hairs as 'man hairs' to mask the discomfort and embarrassment I felt. If weight gain, insulin resistance, and mood swings weren't enough I would spend hours hunched over a vanity mirror, plucking 30, 40, 50 hairs out of my face only for them to grow back as ingrown hairs days later. My face riddled with bumps and hyper-pigmentation, I was often nervous to hug someone always thinking that they would feel the hairs on my chin.

The PCOS Diva/PCOS Challenge Confidence Grant, which was matched by Dr. Sharon Harley has allowed me to improve my emotional stability and overall confidence while I conquer PCOS. The Confidence Grant has allowed me to receive laser hair removal to address the hirsutism, the symptom that was one of the most damaging to my confidence and emotional well being. Since receiving the treatments, I now feel comfortable hugging others again and am no longer ashamed to speak publicly about my 'man hairs'.

ABOUT THE GRANT

The PCOS Diva/PCOS Challenge Confidence Grant was created to help women and girls struggling with hair and skin issues related to Polycystic Ovary Syndrome. The grants are awarded in amounts up to \$500 per individual to assist with the costs associated with dermatology treatments, laser hair removal or electrolysis. This grant was made possible by an endowment from PCOS Diva.

PCOSChallenge.org/confidence

FITNESS & EXERCISE

fter I was diagnosed with PCOS in 2005, one of the first suggestions my doctor offered was to start exercising. I was glad that my doctor didn't solely rely on medication to treat my PCOS and that she thought lifestyle modification was an important part of my treatment plan. However, I was disappointed by the lack of good information on what exercise was best for PCOS.

Fortunately, recent medical studies have uncovered some disorders. For example, researchers at the University of valuable insights on what types of exercise can be used to help fight PCOS. A study conducted by the University of California San Francisco discovered that intense workouts may be better for managing PCOS than moderate exercise.

The study observed the exercise habits of 326 women with PCOS. Researchers divided the women into three groups: vigorous exercisers, moderate exercisers and sedentary women. They compared various health markers between the three groups and found that the women who engaged in regular vigorous exercise enjoyed better overall health.

If your PCOS symptoms have left you feeling exhausted and PCOS! stressed out, a sweat-drenching, heart-pumping workout may seem like a counter-intuitive treatment. However, the High intensity exercise can take a variety of forms. In my benefits of a more intense workout for women with PCOS is not something you want to pass up!

When compared with moderate exercisers and inactive women with PCOS, those who exercised vigorously:

- were less likely to have metabolic syndrome
- had a lower BMI
- had significantly better glucose tolerance
- were less likely to have acanthosis nigricans
- and had smaller waist measurements.

The UCSF study matches well with other research studies on the effectiveness of intense exercise on metabolic New South Wales found that young women who engaged in high intensity cardio workouts for 15 weeks improved their insulin sensitivity by 31% while women who engaged in an equal amount of moderate exercise only saw a 9% improvement in insulin sensitivity over the 15 week trial!

Along with being better for PCOS, intense workouts are more time efficient. High-intensity workouts like circuit training or high intensity interval training can be completed in just 15-30 minutes while most moderate intensity workouts will last an hour! Better results in less time - that is good news for the many busy women of the world who are battling

experience as a personal trainer and a woman living with PCOS, intense 15-30 minute workouts that involve resistance training yield incredible results in a reasonable amount of time. Below are some of my quick tips for using vigorous exercise to improve your PCOS:

• Frequency over duration. Working out for shorter periods of time more frequently is generally better than less frequent workouts for longer stretches. Aim for four or more 15-30 minute workouts a week.

• Focus on strength. Increasing your muscle mass through strength training will help you maintain a healthy weight by boosting your metabolism.

It has been over 10 years since I was diagnosed with PCOS. My journey toward wellness and balance has not always been a smooth one. If there is one thing I have learned, it's that the right exercise program is an incredibly powerful tool for managing PCOS!

MORE ABOUT ERIKA

Erika Volk is a certified personal trainer, Nutrition Coach, and fitness writer. She holds certifications from the American Council on Exercise (ACE), TRX Suspension Training Systems, Precision Nutrition and is the creator of the Just Start! Workout Program for Women With PCOS. She believes that lifestyle modifications are the best treatment for PCOS. If you want to learn more about how exercise can alleviate PCOS symptoms, please visit her website at erikavolkfitness.com. Erika lives with her husband in a small beach town somewhere in Costa Rica. Her hobbies include cooking, hiking, learning Spanish and traveling. At erikavolkfitness.com you'll find at-home workout plans, healthy cooking tips, and stories about her life in Costa Rica.

The Power of SWEAT: **VIGOROUS EXERCISE CAN IMPROVE PCOS By Erika Volk**



 Swap your traditional cardio workout for high intensity interval training (HIIT). During a HIIT workout, the trainee will alternate between bouts of extremely difficult fast-paced exercise and bouts of very low intensity work. For example, you might alternate between sprinting as fast as you can and walking at a steady pace.

Challenge yourself, but don't punish yourself. Vigorous workouts should feel like hard work, but do not push yourself to the point of exhaustion. The idea is to challenge yourself, conquer that challenge and then recover.

ErikaVolkFitness.com

2017 PCOS EVENTS

ATTEND THE BIGGEST PCOS EVENTS OF THE YEAR

PCOS AWARENESS SYMPOSIUM GEORGIA TECH - ATLANTA, GA September 2017

BOLT FOR PCOS 5K RUN/WALK GEORGIA TECH - ATLANTA, GA September 2017

BOLT FOR PCOS VIRTUAL WALK WORLDWIDE

September 2017

VISIT PCOSCHALLENGE.ORG FOR DETAILS

PCOS CHALLENGE JAN - FEB 2017 VOLUME 2 ISSUE



100 NEW TEAM CAPTAINS NEEDED FOR THE 2017 BOLT FOR PCOS 5K RUN/WALK



HELP END PCOS

Bolt for PCOS is the country's largest event dedicated to raising awareness and funds to help fight polycystic ovary syndrome (PCOS).

You're are invited to take a leadership role in the fight against PCOS by becoming a team captain for the 2017 Bolt for PCOS 5K Run/Walk event.

We need your help to make a big difference!

SIGN UP TO BE A TEAM CAPTAIN

YOU MAY SERVE AS A TEAM CAPTAIN FROM ANY LOCATION

PCOS NUTRITION

BIGGERBREAKFAST HEIPS WITH PCOS SYMPTOMS

"Planning a breakfast where a majority of the calories are consumed in the morning, with a reduce caloric

intake throughout the day, could help women with PCOS manage their condition naturally, through diet."

owadays, for many of us, breakfast is a cup of coffee and a bagel or donut from our favorite cafe or drive thru. Then we eat and drink while we rush to work

Breakfast, however, is truly the most important meal of the day. Not only does it give you the energy you need to start the day right, but eating a healthy breakfast actually helps with your metabolism, weight control and improves your mood. Recent studies suggest that women with PCOS can also benefit from eating a bigger breakfast as it helps to decrease insulin resistance and testosterone levels and increase ovulation rates.

Eating a healthy breakfast can reduce hunger and lead to better food choices throughout the day. "Breakfast skippers" tend to eat more at lunchtime and throughout the day and even at night, operating on the myth that they saved calories by skipping breakfast.

A study conducted by Tel Aviv University, compared meal timing and caloric distribution throughout the day for lean women with PCOS, putting the study participants in two different groups: a "big breakfast" group and a "big dinner" group. The result was a significant drop in insulin resistance, testosterone levels, and improved ovulation in the "big breakfast" group as opposed to the "big dinner" group which maintained consistently high levels of insulin and testosterone.

These results suggest the importance of meal timing. Planning a breakfast where a majority of the calories are consumed in the morning, with a reduce caloric intake throughout the day, could help women with PCOS manage their condition naturally, through diet. Researchers also concluded that this high calorie breakfast plan followed by a reduced

caloric intake could help with other common symptoms of PCOS such as hirsutism (excess body hair), acne and elevated risks of developing type 2 diabetes.

Dr. Lynn Westphal, an associate professor of Obstetrics and Gynecology at Standford University and co-director of Women and Sex Differences in Medicine, commented that PCOS patients often don't eat breakfast, or even think it's important. She feels that this study will help doctors in counseling their patients to modify their lifestyle to benefit overall health and managing PCOS.

So if you're thinking about skipping breakfast, think again! This simple, low-effort solution can actually help in your overall health in managing PCOS!

Reference links:

- Study shows bigger breakfast may help women with PCOS manage symptoms
- Effects of caloric intake timing on insulin resistance and hyperandrogenism in lean women with polycystic ovary syndrome

HEALTHY FOOD



The best types of snacks are whole foods, which give your body the nutrition that it needs without the unnecessary chemicals added during processing. If you choose whole food snacks over processed, your body will thank you for it!

Some healthy snacks such as nuts have gotten a bad rap, but you can get the best out of these foods by choosing options that are unsalted, prepared without oil, and eating the recommended serving size.

Choosing healthful snacks can prevent us from making bad food decisions throughout the day.

HERE ARE A FEW IDEAS FOR YOUR SNACKING PLEASURE

- 1. Raw veggies served with homemade guacamole (nothing pre-packaged)
- 2. Trail mix of nuts, dried fruit, and organic cacao nibs (1/4 cup = serving, or palm size)
- 3. Mixed fruit cup with a sprinkle of toasted almonds (just pre-cut your fruit for the week!)
- 4. Avocado slices sprinkled with sea salt & pepper (also tasty with a sprinkle of rice wine vinegar!)
- 5. Celery sticks with 2T organic nut butter
- 6. Mozzarella balls and grape tomatoes with fresh basil, balsamic and olive oil
- 7. ½ cup plain yogurt (dairy or non-dairy) with 1/2 cup unsweetened granola and pomegranate seeds or berries and nuts.
- 8. Hard-boiled egg (your co-workers may not love this one!)
- 9. ½ grapefruit broiled with 1 tsp honey and topped with 1T walnuts
- In addition to snacking right, be sure to keep hydrated with plenty of water! You will feel fuller faster!

VIEW MORE PCOS FRIENDLY RECIPES





PCOS NUTRITION

By Martha McKittrick, R.D., C.D.E

____ ating a healthy diet with a busy schedule is no easy task. Most of us work long hours and then try to juggle family and social obligations. We are lucky if we are able to fit in exercise and adequate sleep. And it's even more difficult if you have PCOS as your body is likely more sensitive to what you eat. Women with PCOS tend to have insulin resistance along with an increased risk of diabetes and heart disease. We also know that a low grade inflammation is often found in PCOS. Diet plays an important role in treating or preventing all of these conditions.

Most meals and snacks on the run are loaded with carbs. Combine this with inadequate sleep and stress and you have the perfect storm for carb cravings, mood swings and weight gain. The good news is with some planning you can eat a healthy diet for PCOS on the go.

PROBLEM AREAS

- No time to shop or plan meals
- End up eating foods on the run which tend to be higher in carbs and more processed
- Waiting too long to eat ... then getting "over-hungry"
- Stress
- Inadequate sleep

All of these problem areas can lead to worsening of symptoms as well as carb cravings and weight gain.

Typical Meals on the run

Carb laden breakfast, oversized sandwiches for lunch, processed snacks and quick dinners that are often lacking in vegetables and carb heavy.

PCOSHealthy Eating on Englishing

QUICK REVIEW OF NUTRITION FOR PCOS

- Combine "healthy" carb + protein + fat at meals. The protein and fat promotes satiety and may help prevent insulin spikes. If watching your weight, be careful not to go overboard.
- Increase intake of anti-inflammatory foods including fatty fish, dark green leafy greens, orange vegetables, garlic, tea, berries, shitake mushrooms, ginger, garlic, turmeric.
- Heart healthy diet. Select healthy fats such as nuts, nut butters, avocado, fatty fish, olive oil and fatty fish. Consume adequate omega 3 fats (supplement if needed).
- Magnesium rich foods may help with insulin resistance. Food sources include leafy greens, beans, nuts, nut butter, whole grains.
- Choose hormone free meats/ poultry/dairy when possible.
- Calorie control if trying to lose weight.

THE SOLUTIONS

Analyze your current work/life/eating situation and come up with a plan.

- **1. Keep food logs.** Keep a food log including what you eat/drink as well as the time. Record any physical or mental feelings. For example, tired after breakfast or craving carbs at 4 pm. Include where you got your meals from. This will help you become really aware of where your problem areas are.
- 2. Analyze the data. Notice patterns as well as how various foods make you feel. Do you go too long without eating? What does a poor night's sleep do to your appetite the next day? Does that bowl of cereal in the morning cause lead to hunger 2 hours later?
- **3. Plan your meals.** This will take a little work – but it is really the key to eating healthier! Plan out a few meals for the week. Put together a shopping list so you'll be prepared once you get to the store. Include plenty of proteins (poultry, fish, canned salmon, eggs, lean beef) and vegetables. Portion out the protein into single servings and freeze. This will defrost quickly so you can make a fast dinner. Frozen vegetables are a good backup.

4. Prepare food in advance. Cook

meals on weekends so you'll have options for the beginning of the week. Cook extra food for dinner and freeze leftovers into individual containers for an easy meal on other days. Consider investing in a crockpot. Throw a few ingredients in and you'll have dinner ready when you get home.

5. Eat breakfast at home or pack it to bring to work. Most break-

fast on the run choices are loaded with carbs. Studies have shown that a high protein breakfast can help control cravings later in the day. Some healthy choices include: eggs, nut butter on a slice whole grain toast, plain Greek yogurt with chia seeds + berries.

6. Bring snacks for during the

day. This will decrease your chances of raiding the vending machine. Some of the snacks I recommend are: nuts (buy mini bags or make your own), string cheese, baby bel cheese, healthy jerky, nut butter on 1/2 apple or whole grain cracker, hummus + veggies, mini guacamole + veggies.

7. Bring lunch from home. Add some leftover protein to greens and other vegetables to make a tasty salad. Or leftover lean protein + vegetables. Try to limit the carbs to 1/2 cup or so (i.e. chick peas, guinoa, sweet potato, brown rice).

out foods:

- - salad

9. Get adequate sleep. Being sleep deprived can worsen insulin resistance, make weight loss more difficult and intensify your carb cravings. Inadequate sleep decreases the satiety hormone leptin and an increase in appetite-stimulating ghrelin.

10. Stress management. Easier said than done! Try not to overbook yourself. Try a meditation app. Find an activity to do that relaxes you.



8. Survey vour surrounding take-out options. There will be days that you just don't have time to cook and need a back-up. While most take-out food is not ideal, you can probably find something that is moderately healthy. See if they post the nutritional content of food online so you can choose ahead of time what you will order. Examples of healthy take-

> • Chinese steamed protein + veg + sauce on side + $\frac{1}{2}$ cup brown rice • sushi – one roll with brown rice + sashimi + miso soup

> • rotisserie chicken, green beans,



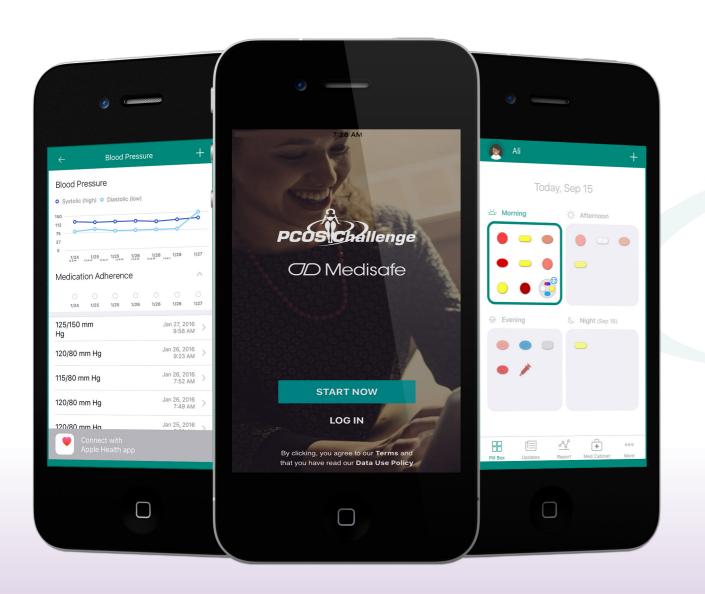
Martha McKittrick is a Registered Dietitian, Certified Diabetes Educator, and Wellcoach® Certified Health & Wellness Coach. Specializing in PCOS for over 15 years, she has lectured across the country to medical professionals and women with PCOS, has been published in medical journals and wrote two chapters in a book on PCOS.

Martha has a private practice in NYC. She also specializes in weight management, diabetes, heart health, and IBS.

CityGirlBites.com

Nutrition Website

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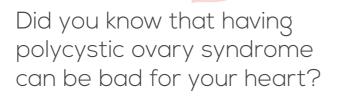
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CARDIOVASCULAR HEALTH



Are You at Risk for Cardiovascular Disease?



According to the Centers for Disease Control and Prevention, women with PCOS are at 4 to 7

times greater risk for heart disease

than those of the same age without PCOS. The American Heart Association's Guidelines for Cardiovascular Disease Prevention in Women mentions PCOS as a common diagnosis that increases lifetime cardiovascular disease (CVD) risk, and that women with PCOS have increased CVD risk factors including a 5-fold risk of developing type 2 diabetes, up to 70% have dyslipidemia (abnormal cholesterol and triglycerides) and 40% have metabolic syndrome.

Because of these risks, there are recommended protocols for screening and preventing cardiovascular disease in women with PCOS. The American College of Obstetricians and Gynecologists and the Endocrine Society recommend that all women with PCOS are screened for impaired glucose tolerance and dyslipidemia with a 2 hour 75 g oral glucose tolerance test (OGTT) and fasting lipid profile (triglycerides, HDL, LDL, total cholesterol) when first diagnosed. The OGTT should be repeated every 2-5 years and the fasting lipid profile every 2 years.

Heart disease is undiagnosed in some women until a heart attack, heart failure or stroke.

Take Action Against Heart Disease

Heart disease is the number one killer of women worldwide. Women with PCOS, regardless of weight, are at increased risk for developing heart disease. While there are risk factors that we can't change such as age and family medical history, we can take action to prevent cardiovascular disease and enjoy healthier lives.

Regular screening (such as blood pressure, OGTT, blood glucose, lipid profile, and waist measurements) - It is recommended that every woman start heart screening tests at 20 years old. Those with PCOS may start earlier. Knowing your numbers can empower you. You may see the improvements in your numbers even before you notice physical changes in your body. Also, ask your doctor about advanced lipid testing which may indicate trouble with your heart before the standard lipid profile.

Eat a balanced, heart healthy diet (including low sodium, low sugar, lean proteins, vegetables and fruits) - Even small changes at a time to your current diet is an improvement. While some people make drastic changes right away (e.g. clearing the fridge and pantry of all offending foods and plan every meal to the last calorie), while some people require changes to be a gradual process.

Move daily and exercise regularly - Walk for 30 minutes every day or for at least 10 minutes after each meal. Also try incorporating high intensity interval training, strength training, yoga, or find a workout class that you enjoy.

Don't Smoke! - Quitting smoking is one of the best actions you can take to improve your health and quality of life. When you quit smoking you lower your risk for many health issues including heart disease and infertility. Find a smoking cessation program that may help you quit!

Heart disease in women may be silent until they experience deadly symptoms such as heart attack or stroke. When women do have symptoms, they include heavy or sharp chest pain, nausea, shortness of breath, pain in the abdomen, back, neck, jaw or throat. Some do not experience symptoms until a heart attack, arrhythmia, heart failure or stroke.

- Centers for Disease Control & Prevention

Limit alcohol - one or less drink a day! Excessive drinking damages heart muscles.

Lower stress - Mental stress can trigger heart disease symptoms. Try meditation, yoga, better sleep and doing activities that bring you joy while avoiding those that increase stress.

Heart-healthy supplements - Food is the best source of nutrients; however, sometimes supplementation can help if you are not getting enough from what you eat. These supplements aim to protect your heart health by helping to lower blood pressure, inflammation and even improve lipid levels. Examples include omega-3 fatty acids, coenzyme Q10, vitamin D and fiber. Speak to your health care provider or a registered dietitian about supplementation.

Medications - Sometimes, life-saving medications may be necessary to treat or prevent cardiovascular disease. Your doctor may prescribe drugs such as aspirin, anticoagulants, statins or others depending on your situation. Never stop taking your medications without speaking your doctor.

Resource links

- PCOS and Diabetes, Heart Disease, Stroke
- AHA Guidelines for Cardiovascular Disease Prevention in Women: For Obstetrician-Gynecologists and other Reproductive Health Professionals
- · Metabolic screening in patients with polycystic ovary syndrome is largely underutilized among obstetrician-gynecologists (AJOG Abstract)
- CDC's Women and Heart Disease Fact Sheet
- Heart Attack Signs and Symptoms
- WHO Women's Health Fact Sheet
- Go Red for Women Know You Numbers Smokefree.gov
- 6 Supplements for Heart Health (WebMD)
- Fact Sheets Excessive Alcohol Use and Risks to Women's Health





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