THE WOMEN'S HEALTH LIBRARY

UNDERSTANDING PCOS/PMOS

CREATED BY

a women's health nurse practitioner

You have been told you have PCOS/PMOS or you think you might have it

This booklet is a complete guide to what's happening in your body and how to feel your best. The below information is for educational purposes only and is not intended to diagnose, treat, or replace individualized medical care.

The Basics.

What is PCOS/PMOS?

Polycystic Ovary Syndrome (PCOS) also now referred to as Polyendocrine Metabolic Ovarian Syndrome (PMOS) is one of the most common hormonal conditions in women — affecting about 1 in 8 women of reproductive age.

Despite the name, it is not really about cysts. The small spots seen on ultrasound are tiny, immature egg follicles that didn't develop fully — not true cysts at all. PCOS/PMOS both an endocrine and metabolic disorder.

In order to better understand what is happening in your body, let's talk about the different systems and what is "normal" first.

PCOS → PMOS

Polyendocrine Metabolic Ovarian Syndrome

Because the old name is confusing and misleading, an international group of doctors, researchers, and patients recently agreed on a new name:

Polyendocrine Metabolic Ovarian Syndrome (PMOS). This new name better describes what is actually going on in the body — a condition that involves multiple hormones (polyendocrine), metabolism (metabolic), and the ovaries (ovarian). Throughout this handout, we will use both names so you can get familiar with the change.

But first, let's talk about why it's so important that PMOS is recognized as an endocrine and metabolic disorder and what that means (hopefully) for future treatment of the condition.

The Endocrine System

What is the endocrine system? A great way to think of it is to think of it like a messaging system for your body. But, instead of texts or emails your body uses hormones to communicate. The "messages" move through your blood like text or emails move through a network.

Different glands make up your endocrine system and send these "messages" (hormones) to other parts of your body to tell it what to do. Some of the most important glands include:

- Pituitary gland – also known as the "master gland" because it tells several of the other major glands what to do. It is located in your brain.
- Thyroid gland – located in your neck, it helps control how fast your body uses energy.
- Adrenal glands – located on top of your kidneys, these glands help control blood pressure, stress, and energy.
- Pancreas – located in your belly near your liver, this gland makes insulin which helps control your blood sugar.
- Ovaries or testes – these glands make hormones like estrogen, progesterone, and testosterone.

PCOS → PMOS

What is an endocrine disorder? An endocrine disorder is when one or more of these glands sends too little or too much of these hormones. This throws off your body's messaging system. If the messages are no longer being sent, your glands start working incorrectly or not at all. When these glands are not working correctly, it can affect our body in different ways and cause different symptoms.

A common example is Hypothyroidism.

For those who have hypothyroidism, the thyroid gland doesn't make enough thyroid hormone, so the body slows down. This can cause tiredness, weight gain, and feeling cold all the time.

With PCOS/PMOS the problem is different.

The messaging mix up starts in the brain (pituitary gland) and then spreads to the ovaries. Let's walk through it step by step.

Step 1: The Brain Sends Too Many "Make Androgens" Messages

Deep in the brain there's a tiny area called the hypothalamus. If we are calling the pituitary gland "the manager" then we will call the hypothalamus "the boss" of this messaging system. It sends messages to your pituitary gland who then sends messages out to the rest of the body.

With PCOS/PMOS the hypothalamus is sending the messages too fast. Think of someone sending text messages over and over without waiting for a reply. This causes the pituitary gland to release too much of a hormone called Luteinizing Hormone (LH) and not enough of the other hormone it makes called Follicle Stimulating Hormone (FSH).

- **LH** tells the ovaries to "Make more androgens!" (testosterone)
- **FSH** tells the ovaries to "Grow and release an egg this month"

So, when there's too much LH and not enough FSH, the ovaries get flooded with "make androgens" messages but don't get enough "release an egg" messages.

PCOS → PMOS

Step 2: The Ovaries Make Too Many Androgens

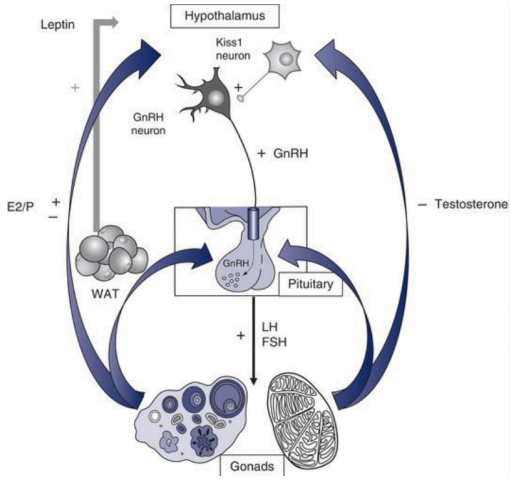

Figure 1. Schematic of the hypothalamic–pituitary–gonadal axis. WAT, white adipose tissue; E2/P, oestradiol, progesterone.

Puberty and Its Disorders. Brook's Clinical Pediatric Endocrinology, 7th Edition. December 31, 2018.

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Because the ovaries are receiving an overload of LH "messages", specialized cells in the ovaries called **theca cells** start making too much testosterone. Everyone's body needs androgens (including testosterone) but with PCOS/PMOS the ovaries are producing much more than the body actually needs.

At the same time as the LH messaging overload, the ovaries are not getting enough FSH messages. Remember, FSH is what tells our ovaries to mature and grow an egg each month to ovulate. Without these messages, an egg will not mature and you will not ovulate.

Instead, the tiny follicles that would either mature into an egg or help another egg mature just sit in the ovary and wait for these FSH messages. Follicles are small fluid filled sacs that hold the immature eggs. On ultrasound, they look like tiny cysts. Since the follicles are "stuck" in the ovary this is what gives them their polycystic appearance on ultrasound. This is where the original name came from.

"Poly" means many + "cystic" means cysts = polycystic "many cysts"

PCOS → PMOS

Step 3: Insulin Makes Everything Worse

Here's where it gets even more complicated. Many people with PCOS also have a problem with **insulin.**

What is insulin? Insulin is a hormone (another messenger!) made by your pancreas. Every time you eat, your body breaks food down into sugar (glucose). Insulin is the message that tells your cells: "Hey, open up! There's sugar out here that you need for energy!" Think of insulin like a **key** that unlocks the door to your cells so sugar can get inside. This is what makes PCOS/PMOS also a metabolic disorder. A metabolic disorder is what happens when something goes wrong with the way your body **processes or uses** food, energy, or nutrients.

If you have PCOS/PMOS the locks on your cells are a little bit broken. The key (insulin) still fits inside the lock but the door will not open all the way. So, not as much sugar is able to get in the cell. That means the sugar that could not get in is now left just floating around in your blood.

This is **insulin resistance.** Your cells are *resisting* insulin.

This is not caused by eating too much sugar or doing anything wrong. It happens to people of all sizes, thin, average, or larger.

Here's the problem: all that extra insulin does two bad things:

1. It tells the ovaries to make **even more androgens** — turning up the volume on a message that was already too loud.
2. It tells the liver to make less of a protein called **SHBG** (sex hormone-binding globulin). SHBG is like a sponge that soaks up extra androgens in the blood and keeps them from causing trouble. With less SHBG, more androgens are free to roam around the body and cause symptoms.

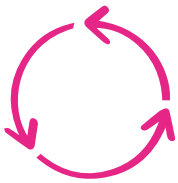
PCOS → PMOS

Step 4: A Vicious Cycle

All of these problems feed into each other, creating a loop that keeps going around and around:

- The brain sends too many LH messages → the ovaries make too many androgens
- Too many androgens → the brain's messaging gets even more disrupted
- Insulin resistance → more insulin → even more androgens
- More androgens → can make insulin resistance worse
- And the cycle continues...

This is why PCOS doesn't just go away on its own — the mixed-up messages keep reinforcing each other.



PCOS/PMOS and Chronic Low-Grade Inflammation

You already know what inflammation looks like on the outside. If you scrape your knee, it gets red, warm, and swollen. That's your immune system rushing to the area to fight germs and heal the injury. This kind of inflammation is a GOOD thing! It's your body's repair crew showing up to do its job. It comes, it fixes the problem, and it goes away.

But there's another kind of inflammation that's very different.

For those who have PCOS/PMOS the body suffers from a type of inflammation called “low grade” and “chronic”.

Low grade means, it’s very subtle unlike a swollen and red knee. It’s hidden and you cannot see it on the outside

PCOS → PMOS

Chronic means it does not go away. It is always there.

Think of it like a volume dial on your internal alarm system. For most people, is there is no problem the alarm is not going off and the volume is turned all the way to zero. For those who have PCOS/PMOS the alarm is always going off, just a low volume like 2 or 3 out of 10. Not high enough to cause symptoms like when you have the flu, but enough to cause damage over time.

For those with PCOS/PMOS many things contribute to this alarm staying at low volume all of the time. Excess androgens, insulin resistance, fat cells (if overweight), and those with PCOS/PMOS are more prone to an imbalance in their healthy gut bacteria which allow for bad bacteria to “leak” into the bloodstream and contribute to this inflammation.

What's Actually Happening Inside?

Your immune system has tiny soldier cells that protect you. Some of the most important ones are called **white blood cells**. In PCOS/PMOS, there are more of these soldier cells floating around than there should be, and they're releasing too many **alarm chemicals** (doctors call these "inflammatory markers" or "cytokines"). Some of the main ones are:

- **CRP** (C-reactive protein) — a general alarm signal that something is inflamed
- **TNF-α** (tumor necrosis factor alpha) — a chemical that tells cells to be on high alert
- **IL-6** (interleukin 6) — another alarm chemical that ramps up the immune response

People with PCOS/PMOS have higher levels of all three of these compared to people without PCOS/PMOS — even when they are the same age and same body size.

Now What?

Now, I hope that somewhat helped you to better understand what is happening inside your body if you have PCOS/PMOS and why it is an endocrine and metabolic disorder.

We talked a lot about how there is a lot of extra testosterone and insulin floating around in your bloodstream and how you are not ovulating on a regular basis. What does this look like on the outside? What symptoms might you see?

How symptoms appear and why: Not everyone with PCOS/PMOS has the same symptoms. Here are the most common ones and why they happen:

• **Irregular or missing periods:** Without regular ovulation, the uterine lining does not shed on a normal schedule. Periods may come every few months, be very heavy when they do come, or stop altogether.

• **Unwanted hair growth (hirsutism):** Extra androgens stimulate hair follicles in areas where men typically grow hair — the face, chest, belly, and back.

• **Acne:** Androgens increase oil production in the skin, clogging pores and causing breakouts.

• **Scalp hair thinning:** Androgens can shrink hair follicles on the scalp, leading to gradual thinning, especially at the crown and part line.

• **Weight gain, especially around the belly:** Insulin resistance promotes fat storage, particularly around the midsection. Many women with PCOS/PMOS find it harder to lose weight than others.

• **Skin darkening (acanthosis nigricans):** Dark, velvety patches of skin in the neck folds, armpits, or groin are a sign of insulin resistance.

• **Skin tags:** Small, soft skin growths, often in the same areas as darkened skin, are also linked to insulin resistance.

• **Fatigue and brain fog:** Insulin resistance and blood sugar swings can cause tiredness and difficulty concentrating.

• **Mood changes:** Depression, anxiety, and mood swings are very common and are driven by hormonal imbalances and the emotional burden of living with a chronic condition.

• **Difficulty getting pregnant:** Without regular ovulation, it is harder to conceive — but this does not mean pregnancy is impossible (more on this below).

• **Sleep problems:** Women with PCOS/PMOS have a higher rate of obstructive sleep apnea (pauses in breathing during sleep), even independent of weight. Symptoms include snoring, waking up feeling unrefreshed, and daytime sleepiness.

PCOS → PMOS

What Can Happen Over Time?

Why are we telling you all of this? What are the long-term health risks associated with untreated or poorly controlled PCOS/PMOS?

If androgen levels stay high, insulin resistance persists, and with the known low-grade chronic inflammation the risks go up for several serious health problems:

Health Problems linked to PCOS/PMOS

- **Type 2 diabetes** — About 30–35% of people with PCOS develop pre-diabetes, and 8–10% develop type 2 diabetes. This can happen even without being overweight.
- **High blood pressure (hypertension)** — The risk of developing high blood pressure is about 2 times higher with PCOS, and even higher when androgen levels are very elevated.
- **High cholesterol and triglycerides** — "Bad" cholesterol (LDL) and triglycerides tend to go up, while "good" cholesterol (HDL) goes down. This is called dyslipidemia.
- **Heart disease** — Over many years, the combination of high blood sugar, high blood pressure, and abnormal cholesterol can damage blood vessels and increase the risk of heart attacks and strokes.
- **Fatty liver disease** — Extra fat can build up in the liver, which can cause inflammation and damage over time.
- **Endometrial problems** — When periods are irregular or absent, the lining of the uterus (endometrium) doesn't shed regularly. Over many years, this can lead to thickening of the lining and, in rare cases, increase the risk of uterine (endometrial) cancer.
- **Sleep apnea** — Breathing may stop and start during sleep, leading to poor sleep quality and tiredness during the day.
- **Mental health** — Anxiety, depression, and low self-esteem are more common. The visible symptoms (acne, hair growth, weight gain) can be especially stressful.

Lifestyle Changes: The Foundation of PCOS/PMOS Management

Healthy lifestyle habits are the single most important part of managing PCOS/PMOS. Even without weight loss, lifestyle changes can improve symptoms. Here is what is recommended and why:

Healthy Eating

There is no one perfect diet for PCOS/PMOS. The best diet is one that is healthy, balanced, and one you can stick with long-term. The tips below can help you feel better and manage your symptoms.

PCOS Healthy Eating Guide

Topic	What to Do	Why It Helps
General Rule	Eat a balanced, healthy diet that works for you — no single "perfect" diet exists	A diet you can stick with is the most important thing
Calories (if trying to lose weight)	Eat about 500–750 fewer calories per day than usual	Helps with weight loss, belly fat, and how your body uses insulin
Carbs (breads, grains, sugars)	Choose whole grains, oats, and brown rice instead of white bread and sugary foods	Keeps blood sugar steady, helps with cholesterol, and can improve fertility
Protein (meat, eggs, beans)	Eat enough protein at each meal	Helps you feel full longer and can improve mood
Fats (oils, nuts, fish)	Choose healthy fats like olive oil, nuts, avocado, and fish like salmon	Healthy fats help with weight loss and lower insulin and cholesterol
Best Eating Styles	Try a Mediterranean-style diet (lots of veggies, fish, olive oil) or a DASH diet	These eating styles are great for heart health and blood sugar

Topic	What to Do	Why It Helps
Foods to Eat More Of	Vegetables, fruits, beans, whole grains, lean meats, nuts, seeds, and fish	These give your body fiber, vitamins, and nutrients that help with PCOS
Foods to Eat Less Of	Sugary drinks, candy, white bread, chips, fast food, and processed snacks	These foods can raise blood sugar and make PCOS symptoms worse
Helpful Supplements	Ask your doctor about vitamin D, omega-3 (fish oil), inositol, and probiotics	These may help with blood sugar, hormones, and ovulation
Fiber	Eat plenty of high-fiber foods like vegetables, beans, and whole grains	Fiber helps with weight, digestion, and blood sugar
Healthy Habits	Set small, realistic goals and track what you eat	Small steps add up and help you stay on track
Watch Out For	Avoid extreme or very strict diets — people with PCOS are more likely to develop unhealthy eating habits	A flexible plan you enjoy is safer and works better long-term

Sources

- 2023 International Evidence-Based PCOS Guideline
- Journal of Clinical Endocrinology & Metabolism (2023)
- Human Reproduction (2023)
- Nutrition Reviews (2023)
- Clinical Endocrinology (2021)

Can Weight Loss Help?

Even losing just 5–10% of your body weight (for example, 10–20 pounds if you weigh 200 pounds) can make a big difference in your symptoms. If you are at a healthy weight, focus on staying there by eating well and staying active. Ask your doctor about seeing a dietitian for a plan made just for you.

How Does a Healthy Diet Help with Inflammation?

Inflammation is your body's way of fighting off germs and healing injuries. But with PCOS/PMOS, your body can get stuck in a state of low-level inflammation all the time, even when there's nothing to fight. This ongoing inflammation can make your hormones more out of balance and make symptoms worse.

Eating healthy foods can help calm this inflammation:

- **Fruits, vegetables, and whole grains** are packed with natural compounds called antioxidants that help cool down inflammation in your body.
- **Healthy fats** like olive oil, nuts, and fish (like salmon) contain omega-3 fatty acids, which act like natural anti-inflammatory helpers.
- **Cutting back on processed foods, fast food, and sugary snacks** helps because these foods can actually turn up inflammation and make things worse.
- **High-fiber foods** like beans, oats, and vegetables help feed the good bacteria in your gut, which also helps lower inflammation throughout your body.

How Does a Healthy Diet Help with Insulin Resistance?

- **Choosing whole grains, beans, and vegetables instead of white bread, candy, and sugary drinks** keeps your blood sugar from spiking too fast, so your body doesn't need to pump out as much insulin.
- **Eating enough protein** (like chicken, eggs, fish, or beans) at meals helps you feel full and keeps blood sugar steady.
- **Avoiding large amounts of refined carbs and sugar** means your body doesn't have to work as hard to manage blood sugar.
- Some studies suggest that dietary changes may improve insulin resistance similarly to metformin in certain individuals.

What Changes Might You Notice When You Eat Better?
When you start eating healthier, you may not see changes overnight, but over weeks and months, many people with PCOS notice real improvements:

- **More regular periods** — as insulin and hormones come into better balance, your menstrual cycle may become more predictable.
- **Less acne and unwanted hair growth** — lower insulin means your body makes fewer androgens (male hormones), which can reduce these symptoms over time.
- **Weight loss, especially around the belly** — even losing just 5–10% of your body weight (for example, 10–20 pounds if you weigh 200 pounds) can make a big difference.
- **More energy and better mood** — eating well and having steadier blood sugar can help you feel less tired and less moody. Higher protein diets have been linked to less depression and better self-esteem.
- **Better cholesterol and blood sugar numbers** — your lab results may improve, lowering your risk for diabetes and heart disease down the road.
- **Improved fertility** — for those trying to get pregnant, healthier eating (especially more fiber and whole grains) has been linked to better ovulation.

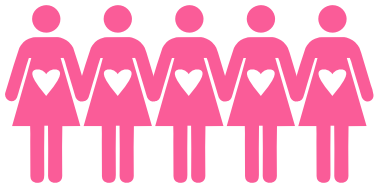
How to Stick With It Long-Term
Changing how you eat is a marathon, not a sprint. Here are some tips to help you keep going:

- **Start small.** Pick one or two changes at a time — like swapping soda for water or adding a vegetable to dinner. Small wins add up.
- **Don't go on extreme diets.** Very strict or trendy diets are hard to keep up and can actually lead to unhealthy eating habits. Research suggests that people with PCOS may be at higher risk of disordered eating, so a flexible plan is safer and works better.
- **Set realistic goals.** Use "SMART" goals — Specific, Measurable, Achievable, Relevant, and Time-bound. For example: "I will eat a piece of fruit with breakfast 5 days this week."
- **Track what you eat.** Writing down your meals (on paper or an app) helps you stay aware and on track.
- **Find an eating style you enjoy.** The Mediterranean diet (lots of veggies, fish,

olive oil, and whole grains) and the DASH diet are both great options that are flexible and tasty — not boring or restrictive.

- **Be patient with yourself.** Research shows that the longer you stick with healthy eating, the bigger the improvements get. It's about progress, not perfection

Just a quick note, some people with PCOS/PMOS will make all of these dietary changes or already follow them and have continued symptoms of PCOS/PMOS. This is not your fault. These changes can help significantly for some, but PCOS/PMOS is not one size fits all and everyone requires different treatment plans. There is no cure for PCOS/PMOS. Although we know what can help your symptoms and decrease your health risks in the future, you may still need medication or other interventions and that is okay.



Physical Activity

Why Does Moving Your Body Help?

Remember how we talked about insulin resistance? Where your body's cells aren't able to let sugar in as well because of the broken lock? And how PCOS/PMOS causes low-grade inflammation like a constant low-level alarm on volume 2-3 inside your body?

Moving your body is one of the most powerful things you can do to help both of those problems. And here's the really cool part: **you don't have to lose weight for it to work.** The movement itself, just getting your muscles working, helps your body on the inside, even if the number on the scale doesn't change.

Let's break down exactly how.

How Movement Helps with Insulin Resistance

When you move your muscles, whether you're walking, dancing, swimming, or lifting something heavy, your muscles need fuel. They start pulling sugar out of your blood to use as energy. This means your body doesn't need as much insulin to get the job done.

Think of it this way: if insulin is like a key trying to unlock a sticky door (insulin resistance), exercise is like oiling the lock. The key works better, the door opens easier, and sugar gets into your cells the way it's supposed to.

Over time, regular movement makes your cells better at listening to insulin again. And when insulin levels come down, your ovaries get a quieter signal and don't make as many androgens (those extra male-type hormones). That can mean less acne, less unwanted hair growth, and more regular periods.

How Movement Helps with Inflammation

Remember that low level alarm with a constant 2-3 volume level of inflammation we talked about? Exercise helps turn down that alarm. When you move regularly, your body:

- Makes fewer of the chemicals that cause inflammation (like TNF-alpha and

IL-6 — think of these as the "fire starters")

- Makes more of the chemicals that calm inflammation down (like IL-10 — think of this as the "fire extinguisher")

Your muscles actually release helpful signals when they work, kind of like sending out little repair crews throughout your body. The more consistently you move, the better your body gets at keeping that inflammation under control.

How Movement Helps With Sleep

A lot of people with PCOS/PMOS have trouble sleeping. Trouble falling asleep, staying asleep, or just not feeling rested. Studies show that about 3 out of 4 people with PCOS report poor sleep quality. People with PCOS/PMOS are more likely to have sleep apnea as well.

Exercise can help because:

- It helps your body's internal clock (your "circadian rhythm") work better, so you feel sleepy at the right time
- It uses up energy during the day, so your body is genuinely ready to rest at night
- It helps lower stress hormones that can keep your brain buzzing when you're trying to sleep

You don't need to do anything extreme, even regular walking or moderate activity has been linked to better sleep over time.

How Movement Helps With Stress, Anxiety, and Mood

Living with PCOS/PMOS can be stressful. Dealing with symptoms, worrying about your health, and feeling like your body isn't cooperating can take a toll on your mood. People with PCOS/PMOS have higher rates of anxiety and depression than people without it.

Exercise helps because:

- It releases endorphins. Your brain's natural "feel-good" chemicals
- It lowers cortisol, your body's main stress hormone
- It gives you a sense of accomplishment and control over your health
- Studies show it can significantly reduce symptoms of depression, anxiety, and stress in people with PCOS/PMOS

One study found that after just 12 weeks of regular exercise, people with PCOS had meaningful improvements in depression, anxiety, stress levels, and overall quality of life.

How Much Movement Do You Need?

The good news: **some movement is always better than none.** You don't have to become an athlete. Here are the general goals to work toward:

- **For general health:** Aim for about 150 minutes per week of moderate activity (that's about 30 minutes, 5 days a week) — OR — 75 minutes per week of more vigorous activity
- **For extra benefits (like modest weight loss):** Aim for about 250 minutes per week of moderate activity or 150 minutes per week of vigorous activity
- **For teens:** About 60 minutes per day of moderate-to-vigorous activity, including activities that strengthen muscles and bones at least 3 times per week
- **Strength training:** Try to include muscle-strengthening activities (like bodyweight exercises, resistance bands, or weights) on 2 days per week

But remember, **start where you are.** If you're doing zero minutes right now, even 10 minutes of walking is a win. You can build up over time.

One Important Note

More is not always better. Research shows that 30–60 minutes per day of exercise is the sweet spot for people with PCOS/PMOS. Exercising more than 60 minutes per day can actually stress your body out and may interfere with your menstrual cycle. So don't overdo it, balance is key.

What Kinds of Movement Are Best?

Here's the great news: **there is no single "best" exercise for PCOS/PMOS.** The best exercise is the one you actually enjoy and will keep doing. That said, here are some categories and ideas:

Cardio / Aerobic Activity (Gets Your Heart Pumping)

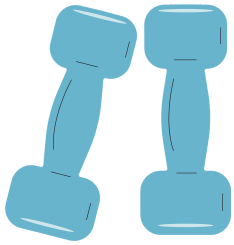
These help with insulin resistance, inflammation, mood, and heart health.

- Walking or hiking
- Biking (outside or stationary)
- Swimming or water aerobics
- Dancing (any style — just move!)
- Jogging or running
- Jump rope
- Playing a sport (basketball, soccer, tennis, etc.)
- Following along with a cardio video at home

Strength / Resistance Training (Makes Your Muscles Stronger)

Building muscle helps your body use insulin better because muscle cells are great at pulling sugar out of your blood. Strength training also boosts your metabolism.

- Bodyweight exercises (squats, lunges, push-ups, planks)
- Resistance bands
- Free weights or dumbbells
- Weight machines at a gym
- Rock climbing



Mind-Body Movement (Good for Stress, Mood, and Flexibility)

These are especially helpful for the stress and anxiety side of PCOS/PMOS. Studies show that mind-body exercises can improve quality of life, reduce depression, and even help with menstrual regularity and blood sugar levels.

- Yoga (many free videos online for beginners)
- Pilates
- Tai chi
- Stretching routines
- Mindful walking (walking while focusing on your breathing and surroundings)

Fun / Social Movement (Doesn't Feel Like "Exercise")

Sometimes the best way to move is to not think of it as a workout at all.

- Walking the dog
- Playing with younger siblings or kids you babysit
- Roller skating or ice skating
- Trampoline parks
- Bowling
- Gardening or yard work
- Cleaning the house to music
- Walking with friends

Tips for Getting Started and Sticking with It

- **Pick something you actually like.** If you hate running, don't run. Dance, swim, walk, do yoga. Whatever makes you feel good.
- **Start small and build up.** Even 10 minutes counts. Add a little more each week.
- **Move with a friend or family member.** It's more fun and you're more likely to keep going.
- **Mix it up.** Try different activities so you don't get bored. Maybe walk on

Monday, do yoga on Wednesday, and dance on Friday.

- **It's okay to have off days.** Missing a day (or a week) doesn't mean you failed. Just start again when you're ready. Progress, not perfection.
- **Reduce sitting time.** Even small changes help — stand up during commercials, take the stairs, walk while you're on the phone.
- **Set small, realistic goals.** Instead of "I'm going to work out every day," try "I'm going to take a 15-minute walk after dinner 3 times this week."
- **Be kind to yourself.** This is about taking care of your body, not punishing it. Your body is doing a lot of hard work, and movement is a way to support it.

The Bottom Line

Moving your body regularly is one of the best things you can do for PCOS/PMOS. It helps your cells listen to insulin again, calms down inflammation, improves your sleep, lifts your mood, and can even help your periods become more regular and all of this can happen even without weight loss. You don't need a gym membership or a fancy plan. You just need to find ways to move that feel good to you and do them consistently. Every little bit counts.

Medications That Can Help with PCOS/PMOS

Remember how we talked about PCOS/PMOS being like a chain reaction in your body — too much insulin → too many androgens → symptoms like irregular periods, acne, and unwanted hair growth? The good news is that there are medicines that can help break that chain at different points. Let's go through each one.

1. Birth Control Pills (Combined Oral Contraceptives)

You might hear your doctor call these "the pill" or "COCPs."

What they do:

Birth control pills are usually the first medicine doctors try for PCOS/PMOS when the main problems are irregular periods, acne, or unwanted hair growth.

They work in a few ways:

- **They quiet down the signal from your brain.** Remember how the pituitary gland sends messages to your ovaries? The pill turns down the message (called LH) that tells your ovaries to make androgens. Fewer androgens = less acne and less unwanted hair growth.
- **They help your liver make more of a "sponge" protein.** Your liver makes something called SHBG (sex hormone-binding globulin). This guy was mentioned earlier. Think of SHBG like a sponge that soaks up extra testosterone floating around in your blood. The pill tells your liver to make more of these sponges, so less testosterone is free to cause problems.
- **They protect your uterus.** When you don't get regular periods, the lining of your uterus can build up too much, which isn't healthy over time. The pill gives your body a regular dose of hormones that keeps the lining from getting too thick.
- **They give you a regular cycle.** You'll get a predictable period (or withdrawal bleed) each month.

Good to Know

- Your doctor will usually pick a pill with a lower dose of estrogen, since higher doses don't work better and can have more side effects.
- Birth control pills are generally better than metformin at lowering androgen levels and clearing up acne and hair growth.
- They can slightly raise triglycerides (a type of fat in your blood) and may not help with insulin resistance, that's where other medicines come in.

2. Metformin

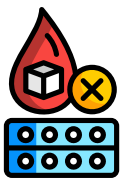
What it does:

Metformin is a medicine that was originally made for type 2 diabetes, but it's really helpful for the metabolic (body chemistry) side of PCOS/PMOS.

This medication DOES help with the insulin resistance problem of PCOS/PMOS.

Here's how:

- **It tells your liver to chill out.** Your liver normally releases stored sugar into your blood. Metformin tells it to slow down, so there's less sugar floating around and your body doesn't need to pump out as much insulin.
- **It helps your cells listen to insulin again.** Think of it like fixing the "sticky lock" we talked about with exercise. Metformin helps oil that lock so insulin can do its job better.
- **Less insulin = fewer androgens.** When your insulin levels come down, your ovaries get a quieter signal and don't make as many male-type hormones. This can help your periods become more regular and may even help with ovulation (releasing an egg).



When your doctor might suggest it:

- If your BMI is 25 or higher (which means you're in the overweight range)
- If you have signs of insulin resistance, prediabetes, or high cholesterol/triglycerides
- Sometimes for teens to help regulate periods
- It can also be used together with birth control pills, especially if your BMI is over 30 or you have other risk factors for diabetes

Good to Know

- Metformin can cause stomach upset, bloating, or diarrhea — especially at first. That's why your doctor will start you on a low dose and slowly increase it.
- The extended-release version (the kind that dissolves slowly) is easier on your stomach.
- Taking it with food helps too.
- Long-term use can lower your vitamin B12 levels, so your doctor may check that from time to time.

3. Spironolactone (Anti-Androgen Medicine)

What it does:

Spironolactone was originally made as a blood pressure and water pill, but doctors discovered it also blocks androgens, those extra male-type hormones that cause problems in PCOS/PMOS.

Here's how it works:

- **It blocks the androgen "parking spots."** Androgens need to attach to special spots on your cells (called receptors) to cause acne and hair growth. Spironolactone sits in those parking spots first, so the androgens can't park there and can't do their thing.
- **It slows down a helper enzyme.** There's an enzyme in your skin called 5-alpha reductase that turns testosterone into an even stronger form (called DHT). Spironolactone slows this enzyme down, so less of that super-strong

androgen gets made.

When your doctor might suggest it:

- If you've been on birth control pills for at least 6 months and still have bothersome acne or unwanted hair growth
- It's usually used together with birth control pills, not by itself

Very important safety note:

Spironolactone can cause serious problems for a developing baby if you get pregnant while taking it. That's why you **must** use reliable birth control the entire time you're on this medicine. Your doctor will talk to you about this.

Good to Know

- The usual dose is 25–100 mg per day.
- It takes at least 6 months to see the full effect on hair growth — so be patient.
- Side effects can include more frequent periods, feeling dizzy when you stand up, and (rarely) high potassium levels in your blood.

4. GLP-1 Medicines (Like Semaglutide and Liraglutide)

You may have heard of brand names like Ozempic, Wegovy, or Saxenda.

What they do:

These are newer medicines that copy a natural hormone in your body called GLP-1. This hormone is released by your gut after you eat, and it does several helpful things:

- **It helps your body release the right amount of insulin** — but only when your blood sugar is actually high (so it doesn't cause low blood sugar).
- **It tells your brain you're full.** GLP-1 works on the appetite center in your brain to reduce hunger and help you feel satisfied with less food.
- **It slows down how fast food leaves your stomach**, so you feel full longer.

The result? These medicines can help with significant weight loss, which then

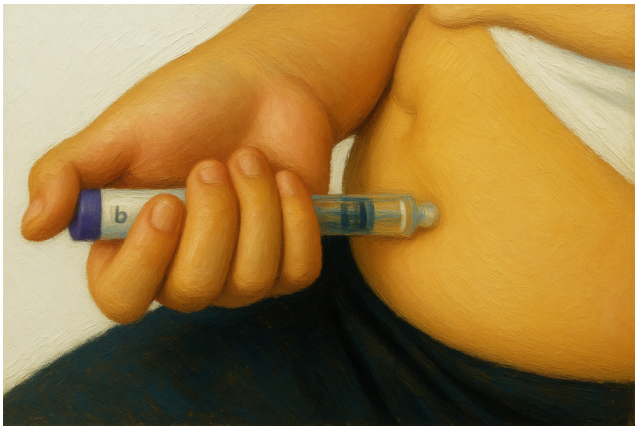
helps improve insulin resistance, lower androgen levels, and may even help with period regularity.

When your doctor might suggest it:

- If you have PCOS/PMOS and are struggling with weight management
- Usually in addition to healthy eating and exercise, not instead of them
- Your doctor will start with a low dose and slowly increase it to reduce side effects

Good to Know

- The most common side effects are nausea, vomiting, and diarrhea. These usually get better over time as your body adjusts.
- You **must** use reliable birth control while taking these medicines, because there isn't enough safety data about using them during pregnancy.
- If you stop taking them, weight can come back, so this is something to discuss with your doctor as a long-term plan.
- These medicines are given as a shot (injection) under the skin, usually once a week, though some newer versions come as a daily pill.



5. Inositol (A Supplement)

What it is:

Inositol is a natural substance found in foods like fruits, beans, and grains. It comes in supplement form (usually as myo-inositol or D-chiro-inositol) and is thought to help your body use insulin better.

The honest truth:

- Some studies show it may help a little with insulin and hormone levels.
- However, the research is limited, and metformin works better for most people.
- The upside is that inositol has fewer side effects than metformin (less stomach trouble).
- It's available over the counter, but you should still talk to your doctor before starting it.

6. Fertility Medicines (When You're Trying to Get Pregnant)

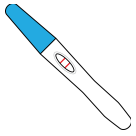
If and when you want to have a baby, the treatment plan changes completely. Birth control pills and spironolactone are stopped, and your doctor may suggest medicines that help you ovulate (release an egg).

Letrozole (brand name: Femara) — This is the preferred first choice.

- It works by temporarily blocking an enzyme called aromatase, which lowers estrogen levels. When your brain senses less estrogen, it sends a stronger signal (more FSH) to your ovaries to grow and release an egg.
- Studies show letrozole leads to higher pregnancy and live birth rates than the older medicine, clomiphene.

Clomiphene (brand name: Clomid) — This is the second choice.

- It works differently. It tricks your brain into thinking estrogen is low by blocking estrogen receptors in the hypothalamus. Your brain then sends out more of the hormones that stimulate your ovaries.
- Sometimes it's combined with metformin, which may work especially well for people with higher insulin levels.



Other options if pills don't work include injectable hormone medicines (gonadotropins) or, in some cases, a minor surgery on the ovaries. IVF (in vitro fertilization) is also an option if other treatments haven't been successful.

7. Other Helpful Treatments

- Eflornithine cream — A prescription cream you apply to your face that slows down hair growth. It doesn't remove hair, but it makes it grow more slowly. It works by blocking an enzyme in the hair follicle.
- Laser hair removal — Can help reduce unwanted hair, but people with PCOS/PMOS usually need more treatments than other people. It works best when combined with medicines like birth control pills and spironolactone.

The Big Picture

There is no single pill that fixes everything about PCOS/PMOS. That's because PCOS/PMOS affects your body in many different ways hormones, metabolism, inflammation, mood, and more. The right medicine (or combination of medicines) depends on:

- Which symptoms bother you the most
- Your overall health and risk factors
- Whether you're trying to get pregnant now or not
- What side effects you're okay with

The most important thing to know is that **you and your doctor will work together to find the right plan for YOU.** It won't be fixed in one visit or one month, but there are so many options when it comes to managing your PCOS/PMOS. The most important thing is that you have a better understanding of what is happening in your body. Remember, you aren't alone. 1 in 8 women are figuring out how to best manage their PCOS/PMOS.

Who Can Help?

You don't have to do this alone. There are people who can support you:

- **Your doctor or healthcare provider** — They can help you understand your PCOS/PMOS, check your labs, and make a plan that's right for you.
- **A registered dietitian (RD)** — This is a food and nutrition expert who can create a personalized eating plan based on your needs, preferences, and budget. Ask your doctor for a referral.

- **A mental health counselor or therapist** — If you're struggling with stress, body image, mood, or eating habits, talking to a professional can make a real difference. Cognitive behavioral therapy (CBT) has been shown to help.
- **Support groups** — Connecting with other people who have PCOS/PMOS (online or in person) can help you feel less alone and share tips that work
- **Trusted online resources** —
  - **AskPCOS** (askpcos.org) — This is the official evidence-based app and website developed alongside the 2023 International PCOS Guidelines, endorsed by the Endocrine Society, ASRM, and ESHRE. Available in 15–20 languages and used in 186 countries. It includes a question prompt list to help patients prepare for doctor visits.
  - **PCOS Challenge** (pcoschallenge.org) — The largest nonprofit patient support organization for PCOS, offering support groups, educational resources, and community forums
  - **PCOS Awareness Association** (pcosaa.org) — Provides free educational materials and awareness campaigns
  - **Center for Young Women's Health** (youngwomenshealth.org) — Run by Boston Children's Hospital, specifically designed for adolescents and young adults — great for the age group being educated here
  - **Verity** (verity-pcos.org.uk) — UK-based PCOS charity with educational resources and peer support

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