

ONLINE NIGHT 1 · 5:30 PM – 8:00 PM CST

Pregnancy Physiology

& When Pregnancy Goes Wrong

Mary's Hands Network

ICEA Certified Birth Doula

Hybrid Training

Welcome & Housekeeping

- Tonight: pregnancy + warning signs
- Two short breaks: 6:20 and 7:20
- Camera on if you can. Mute when not talking.
- Use chat for questions any time
- Ice-breaker: one word — why are you here?

Learning Objectives

- Know what changes happen each trimester
- Use safe ways to help with pregnancy aches
- Know the main pregnancy tests
- Know what a doula can and cannot do
- Spot warning signs that need a doctor now
- Speak up when a client's worries get brushed off
- See how racism hurts Black moms in Louisiana

Normal Pregnancy:

Physiology & the Doula's Role

Fertilization

- Sperm and egg meet in the fallopian tube
- The cells start dividing right away
- Baby's DNA is set right here
- Pregnancy is counted from the last period
- Most people are 2 weeks 'pregnant' before sex even happened

Implantation

- Days 6–10: the tiny ball of cells digs into the uterus lining
- This sends out hCG — the hormone that turns a pregnancy test positive
- Some people see light spotting and think it's a period
- If it doesn't dig in, the lining sheds like a normal period
- They may never know they were briefly pregnant

From Fertilization To Childbirth



The Placenta

The only organ the human body grows — and then discards.

Delivers Oxygen & Nutrients

Mom and baby's blood never mix

It lets through oxygen, sugar, and vitamins

It blocks most germs and toxins

Removes Fetal Waste

Baby's waste (like CO₂) goes back through to mom's blood to leave the body.

Produces Key Hormones

Around week 10, the placenta takes over the pregnancy hormones.

Development & Delivery

Fully working by weeks 12–16. About 1–1.5 lbs at birth. Comes out after the baby.

Six Hormones Drive Every Symptom Your Client Feels

Understanding these hormones lets you explain exactly why your client feels the way she does.

hCG

Makes you nauseous · shows up on tests · peaks at week 10

Progesterone

Keeps the pregnancy going. Causes heartburn and tiredness.

Estrogen

Grows things. Drives blood flow, glow, skin changes.

Relaxin

Loosens ALL joints — back pain, hip pain, clumsy moments.

Oxytocin

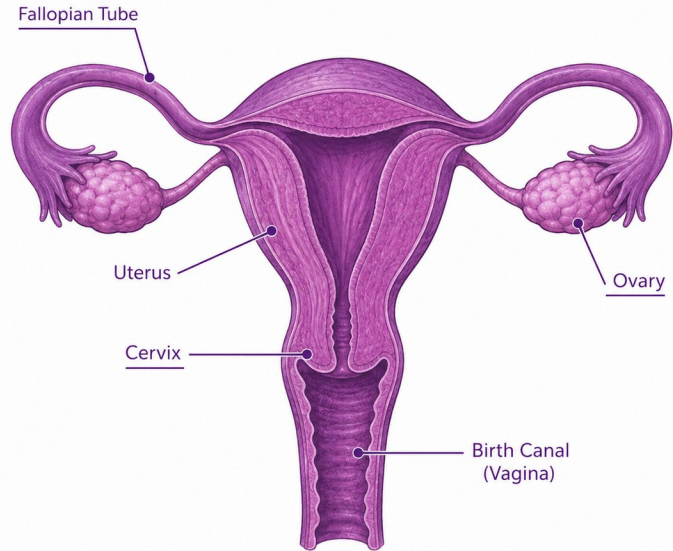
Builds slowly. Triggers labor. Drives bonding.

Cortisol

Goes up over time. Long-term stress = risk.

The Uterus — The Engine of It All

From pear-sized to watermelon-sized. Everything else moves to make room



- Starts pear-sized: 3 ounces
- Grows to watermelon-sized: about 2 pounds
- Pushes every organ up and to the sides
- Causes most third-trimester aches
- One of the strongest muscles in your body

Stomach, Intestines & Diaphragm

Stomach & Intestines

T2 onward, worst in T3

Squeezed by the growing uterus. Hormones slow digestion.
Result: heartburn, gas, constipation. Worse after meals and lying down.

Diaphragm

Third trimester

Pushed up about 4 cm in T3. Lungs have less room. Causes shortness of breath. Gets better when baby drops in late T3.

Bladder, Kidneys & Cardiovascular System

Bladder

T1 and T3

Squeezed by hormones in T1, by baby's head in T3. Peeing a lot is just structural — not a bladder problem.

Kidneys

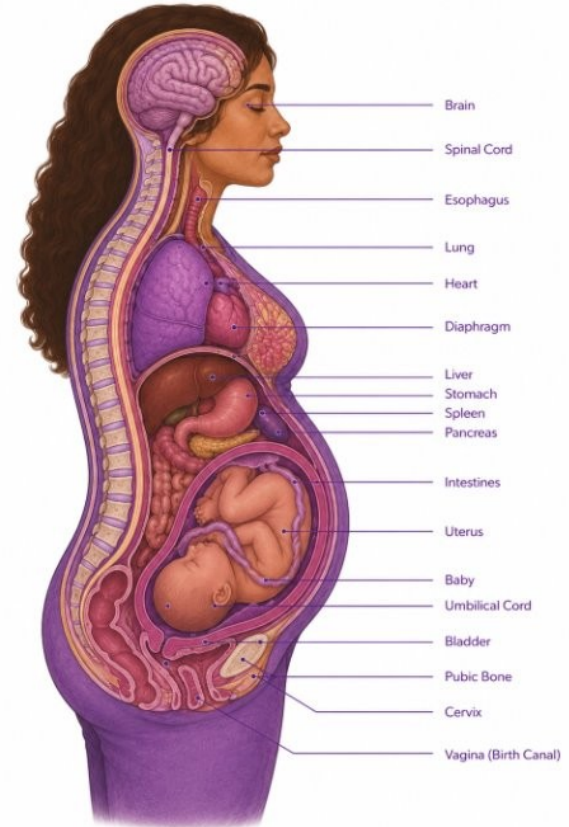
Throughout pregnancy

Filtering 60–80% more blood. A bit of sugar in urine is normal.

Heart

T1 through birth

Blood volume goes up 40–50%. Heart beats 10–20 more times a minute. Heart works 30–50% harder.





TP

**THE FIRST
TRIMESTER**

The Foundation — Critical Development

- Days 1–14: Sperm + egg meet. Cells divide. Ball burrows into uterus.
- Week 4: Brain and spine start forming. Tiny heart starts beating.
- Weeks 5–8: All major organs start to form
- Week 8: Now called a fetus. Tiny fingers and toes — about 1 inch long.
- Week 10: Placenta takes over hormones
- Week 13: A face you can see. About 3 inches and 1 ounce.



Often the Hardest — With No Visible Bump

- Nausea (70–80%) — not just in the morning
- Super tired — your body is building a placenta
- Sore breasts. Peeing all the time. Hate certain smells.
- Big feelings — fear, doubt, and joy all at once
- No bump yet — can feel unreal
- Highest miscarriage risk now — your job is calm and care

The Growth Surge — Senses & Viability

- Weeks 14–16: Baby makes faces, sucks, hiccups
- Week 16: Fingerprints form. Bones harden up.
- Weeks 18–22: Mom feels baby move for the first time (quickening)



The Growth Surge — Senses & Viability

- Week 20: Baby swallows fluid. Tastes. Hears sounds outside.
- Week 24: Could survive with NICU care if born now
- Week 27: Eyes open. About 14 inches, 2 pounds.



The Honeymoon Period — Energy Returns

- Nausea fades. Energy comes back.
- Bump shows — feels real for the first time
- Sharp belly pains as the uterus stretches
- Stuffy nose, nosebleeds, bleeding gums
- Skin changes: glow, stretch marks, dark line on belly
- Best time to plan the birth and build trust

The Final Preparations — Fat, Lungs & Position

- Weeks 28–32: Quick weight gain. Baby fat builds up.
- Weeks 32–36: Lungs make surfactant — needed to breathe
- Week 37: 'Early term' — lungs ready but brain still growing
- Weeks 39–40: Best time to be born. Baby moves head-down.
- Full term: 19–21 inches, 6–9 lbs

The Home Stretch — Intensity & Anticipation

- Tired, heavy, hard to sleep, short of breath
- Heartburn gets worse
- Pressure down low. Sharp 'lightning' pains. Peeing again.
- Swelling in feet and hands — sudden bad swelling = red flag
- Nesting — sudden urge to clean and organize
- Big feelings: excited, scared, impatient



How Mom Feels Inside

- Mixed feelings are normal — fear + joy + doubt all at once
- Body image shifts. Identity shifts.
- Partner dynamics change
- Your job: listen and validate — don't fix
- Big feelings DON'T mean regret

Nausea & Vomiting

Affects 70–80% of pregnant people. Can happen any time of day.

What you can offer:

- Small, frequent meals — empty stomach makes it worse
- Ginger: tea, candies, fresh ginger
- Vitamin B6 (ask the doctor first)
- Sea-Band wristbands (acupressure)
- Skip your trigger smells and foods

When to refer to provider:

Inability to keep fluids down for 24 hours, weight loss, or vomiting more than 3–4 times per day may indicate hyperemesis gravidarum — refer to provider.

Doula script:

"Morning sickness is miserable and I'm sorry you're dealing with it. Try eating small amounts frequently — even crackers or toast. Protein helps. And ginger really works for some people."

Heartburn & Indigestion

Up to 80% of pregnant people experience this — especially in the third trimester.

What you can offer:

- Small meals, not big ones
- Skip spicy, fatty, fried, acidic food
- Don't lie down for 2–3 hours after eating
- Sleep with your head propped up
- Chew gum — spit lowers acid

When to refer to provider:

If severe or not responding to dietary changes, the provider can recommend safe antacids for use during pregnancy.

Doula script:

"Heartburn is so common in pregnancy because hormones relax the valve at the top of your stomach and the baby is pushing everything upward. Small meals and sleeping propped up really help."

Swelling (Edema)

Normal in the feet, ankles, and hands — especially in the third trimester. Blood volume has increased 40–50%.

What you can offer:

- Put your feet up when sitting
- Don't stand for long stretches
- Drink water — it actually helps
- Cut back on salt
- Try compression socks if it's bad

When to refer to provider:

Sudden, severe swelling in the face, hands, or around the eyes — especially with headache or vision changes — requires immediate evaluation. One leg significantly more swollen than the other may indicate a blood clot.

Doula script:

"Swelling in your feet and ankles is really common, especially in the heat or at the end of the day. Elevating your feet helps. Drinking water actually helps reduce it, even though that seems backward."

Back & Pelvic Pain

Caused by shifted center of gravity, relaxin loosening ligaments, and a growing uterus.

What you can offer:

- Stand tall — shoulders back, pelvis tucked
- Wear good shoes — no heels
- Try prenatal yoga or gentle stretches
- Use heat on your back (not on the belly)
- Sleep on your side with a pillow between knees

When to refer to provider:

Severe, persistent pain or symphysis pubis dysfunction (SPD) may benefit from a referral to a prenatal physical therapist.

Doula script:

"Your body is doing a lot of shifting and adjusting. Back pain is really common. Stretching helps, heat helps, and changing positions often helps. If it gets bad, prenatal PTs do amazing work."

Fatigue

Real, intense, and often underestimated — especially in T1 and again in T3.

What you can offer:

- Tell her: resting is not lazy. It's the work.
- Short naps (20–30 minutes)
- Protein + complex carbs for steady energy
- Drink water — being dry makes you more tired
- Light walks can actually wake you up

When to refer to provider:

Extreme, debilitating fatigue beyond what is typical may indicate anemia — encourage provider to check iron levels.

Doula script:

"Your body is working so hard right now — harder than it would running a marathon. Of course you're tired. Rest when you can. This isn't laziness. This is your body doing exactly what it needs to do."

Braxton Hicks Contractions

Practice contractions — irregular, usually painless, and stop with position change or hydration.

What you can offer:

- Drink water first — being dry sets them off
- Change positions — usually stops them
- Rest if they keep coming
- Tell her: 'It's practice, not real labor'

When to refer to provider:

If contractions become regular (every 5–10 minutes), are accompanied by pain, bleeding, or pelvic pressure before 37 weeks — call the provider. When in doubt, get it checked out.

Doula script:

"Those are Braxton Hicks contractions — your uterus is practicing for labor. They're normal and actually helpful. But if they become regular or painful before 37 weeks, always check in. When in doubt, get it checked out."

Prenatal Testing — What Your Clients Go Through

Test	Timing	What It Screens	Your Role
First Trimester Screening	10–13 wks	Checks for genetic conditions. Blood test + ultrasound. Gives a risk number, NOT a yes/no.	<i>Help her know: high risk does not mean a sick baby. Lots of healthy babies after high-risk results.</i>
Anatomy Scan	18–22 wks	Detailed look at baby's body, placenta, and fluid. Can find out sex.	<i>Normal to feel both excited and scared. Help her write down questions first.</i>
Glucose Screening	24–28 wks	Checks for pregnancy diabetes. A high 1-hour test doesn't always mean you have it.	<i>Tell her to bring a snack. Normalize the test.</i>
Group B Strep	36–37 wks	Normal bacteria in 25–30% of people. If positive: antibiotics during labor.	<i>Normal — not an infection. Not her fault.</i>

Prenatal Vitamins — Why They Matter

Folic acid stops brain and spine birth defects. Those happen in the first 28 days — before most people know they're pregnant. Cuts the risk by 50–70%. Iron is just as important — your blood volume goes up 40–50%, and many people are low.

When clients can't or won't take them:

- 'They make me nauseous.' → Try them at night, with food, or as gummies (note: gummies often skip iron).
- 'I can't afford them.' → WIC gives them free. Clinics often have samples.
- 'I keep forgetting.' → Set a daily alarm. Put them next to something you use every day.

BREAK

6:20 PM — 6:30 PM · 10 minutes

Step away. Stretch. Hydrate. Reset.

Back at 6:30 — Doula scope and prenatal care.

"Pregnancy Brain" Is Real — And Adaptive

A 2016 brain study showed pregnancy actually rewires the brain. The parts that help you read people, feel empathy, and bond with your baby get stronger. These changes last at least 2 years after birth. Short-term memory takes a hit. That's normal — not a problem.

Doula Script

'Your brain is rewiring right now to help you bond with and care for your baby. Studies show these changes are getting you ready for parenthood. You might forget where you put your phone — but your brain is getting really good at reading your baby. It's a trade-off. And it's temporary.'

Scope of Practice — Knowing the Line

Within Your Scope

- Share good info about normal pregnancy
- Help her come up with good questions for the doctor
- Know when symptoms need a doctor
- Help with normal pregnancy aches
- Make normal tests feel normal
- Support partners as their role grows

Outside Your Scope

- Diagnose anything
- Tell her what meds to take
- Read or explain lab results
- Tell her to skip going to the doctor
- Tell her yes or no on a procedure
- Argue with the doctor

BREAKOUT DISCUSSION · 10 MINUTES

Imagine a client at 36 weeks who has been Googling everything.

Based on what you just learned, what kinds of questions do you think she might bring to a prenatal visit? Pick 2–3 your group comes up with and work through how you would respond — and where scope of practice starts to matter.

Each group shares with the full class:

- What is the question?
- What would you say?
- What would you NOT say — and why?

BREAK

7:20 PM — 7:30 PM · 10 minutes

Step away. Stretch. Hydrate. Reset.

Back at 7:30 — When Pregnancy Goes Wrong.

When Pregnancy Goes Wrong:

Danger Signs & Complications

Your job is not to diagnose. Your job is to recognize, advocate, and act.

Scope of Practice Still Applies Here

Important — Scope Reminder

You are not a medical provider. You do not diagnose. You do not prescribe. You do not override medical advice.

But you ARE an educated support person who knows when something is not right.

Sometimes that means calmly and clearly saying:

"We need to call your provider right now."

That is not overstepping. That is exactly what doulas do.

What It Is

Preeclampsia

5-8%
of all
pregnancies

High blood pressure ($\geq 140/90$) developing after 20 weeks of pregnancy, with signs of organ stress — protein in urine, liver dysfunction, kidney problems, or low platelets.

Clinical Note

- Severe signs: BP 160/110 or higher → stroke risk goes way up
- The only cure is having the baby — everything else just buys time
- HELLP syndrome — a worse version, hits 10–20% of severe cases
- Can show up AFTER birth — up to 6 weeks postpartum

Every doula must know these.

01

Severe Persistent Headache

Not responding to Tylenol

02

Vision Changes

Blurred, spots, flashing lights

03

Upper Abdominal Pain

Especially on the right side

04

Sudden Severe Swelling

Face, hands, around the eyes

05

New Nausea or Vomiting

Onset in the third trimester

06

Decreased Fetal Movement

Always take seriously

What Happens After Diagnosis

Treatment

- Only cure: deliver the baby
- Magnesium sulfate stops seizures
- Meds bring down blood pressure
- Close watch — BP, blood tests, baby checks

Postpartum Risk

- About 1 in 4 eclamptic seizures occur postpartum — most in the first 48 hours after birth
- But postpartum preeclampsia can occur up to 6 weeks after delivery
- Many cases occur in women who did NOT have preeclampsia during pregnancy
- This is why your postpartum check-in visits are not optional — you may catch something no one else does

Doula Scripts — Advocacy in Practice

When a provider minimizes symptoms:

'I hear you that this might be normal. But she's really worried, and these match classic warning signs. Can we check her BP and urine — just for peace of mind?'

When the headache has lasted all day:

'She's saying this is the worst headache of her life and Tylenol isn't touching it. Given her history, can we get her seen today?'

When your client hesitates to call:

'I know you don't want to bug them. But this is exactly what they're there for. Let's call — better to find out it's nothing. I'll call with you.'

The disparity is not a coincidence — it is a system.

2-3x

more likely to die

Black women face 2–3x higher pregnancy-related mortality than white women nationally

60%

more likely to develop preeclampsia

Higher rates and worse outcomes when they do

2x

Louisiana's maternal mortality rate

Nearly double the national average — gap is most severe for Black mothers

Clinical Note

This disparity holds across income and education levels — structural racism, not individual risk, is the primary driver. Symptoms are more often minimized in Black patients. Your informed, persistent advocacy is not optional — it is a clinical intervention.

FULL GROUP DISCUSSION · 10 MINUTES

Where have you seen, read about, or heard stories of racism in healthcare?

In the news. In your own family. In your community. In your own experience as a patient.

How does knowing this change what you think a doula's role should look like?

There are no wrong answers. No requirement to have a birth work story to contribute. Your instructor will hold space for whatever comes up.

- What surprised you most about the statistics?
- What would it look like for a doula to address this in practice?
- What feels uncertain or hard about this conversation for you?

An Orientation to Other Common Complications

Gestational Diabetes

6–9% of pregnancies. Managed with diet, exercise, sometimes insulin. Bigger babies. More C-sections.

Make her diagnosis feel normal. Support diet changes without judgment.

Preterm Labor

Contractions before 37 weeks. Signs: regular contractions, pelvic pressure, low backache, watery discharge.

Get her seen NOW. Don't wait and see.

Placenta Previa & Abruption

Previa: placenta covers the cervix — no vaginal birth.
Abruption: placenta tears away — life-threatening.

Painless bleeding in T3 = ER, NOW.

Hyperemesis Gravidarum

Severe nausea + vomiting. Not 'just' morning sickness. May need IV fluids and hospital care.

Take her seriously. It often gets brushed off. Your presence matters.

What Would You Do?

The Scenario

Your client is 34 weeks pregnant. She texts you at 9:00 PM: "I have a terrible headache and my face looks puffy. It came on fast. Should I be worried?" Her sister had preeclampsia last year.

In your group, discuss:

- What do you text back — word for word?
- What would change if she said the headache started yesterday?
- She already called her provider and was told to "just rest and drink water" — what now?

What to carry with you from tonight

01

Pregnancy is a 40-week journey. Understand it well enough to support it well.

03

Pregnancy aches are REAL. Normalize them. Use what works.

05

Racism is killing Black moms. Your advocacy is part of the fix.

02

Trust is built BEFORE labor. That makes labor easier.

04

Memorize the warning signs. Preeclampsia can hit AFTER birth too.

06

Your job: watch, teach, advocate, support. Never diagnose. Never give medical advice.