Week 23 of pregnancy: brain growth lung structure and weight gain

Your baby at 23 weeks: size, movement, and overall development

By week 23, the fetus is often described as roughly the size of an eggplant, although individual growth varies. Estimates of fetal size and weight are averages, and ultrasound measurements can have a margin of error. What matters most clinically is the overall growth pattern over time, the amount of amniotic fluid, l function, and your clinician’s assessment.

Movement may feel more distinct now. You may notice kicks, rolls, stretching sensations, or rhythmic movements that could be hiccups. Because the nervous system is maturing, fetal movement patterns may gradually become more organized, although formal daily kick counting is usually introduced later in pregnancy unless your clinician advises otherwise.

The skin is still thin and somewhat translucent because fat stores remain limited. Over the coming weeks, the baby will continue adding tissue beneath the skin, and the body will look progressively less lean. Fine details are also forming: fingerprints and footprints are developing, making the baby’s skin patterns uniquely individual.

Brain growth and nervous system maturation

Week 23 is a period of active brain development. The fetal brain is increasing in complexity, and connections within the nervous system continue to support more coordinated]] and reflexes. This does not mean the brain is mature; rather, it is building the structural and functional groundwork needed for later development.

Sensory processing is also advancing. The fetus can respond to external stimuli, particularly sound. Familiar voices, rhythmic noises, and environmental sounds may be perceived through the uterus and amniotic fluid. The sound is muffled, but repetitive exposure to voices and patterns may contribute to early recognition after birth.

Sleep-wake cycling is becoming more evident, and rapid eye movement, or REM sleep, may occur. REM sleep is associated with brain activity and is an important developmental phenomenon, although fetal sleep patterns remain very different from newborn or adult sleep.

For parents, this stage can feel emotionally meaningful. Talking, reading, singing, or simply resting a hand on the abdomen can be a gentle way to connect with the pregnancy. These practices are not medical requirements, and they should not become another source of pressure. The most important foundation for fetal neurodevelopment remains consistent prenatal care, good nutrition, appropriate management of maternal health conditions, and avoidance of known harmful exposures such as alcohol and tobacco smoke.

Lung structure: preparing for breathing, but not ready yet

The lungs at 23 weeks are still immature, but they are developing rapidly. The airway tree continues to branch, and the tissue architecture needed for gas exchange is gradually forming. This structural development is essential because after birth the lungs must move oxygen into the blood and remove carbon dioxide independently.

One key concept is surfactant, a substance produced by specialized lung cells that helps reduce surface tension in the tiny air spaces of the lungs. Without enough surfactant, the air sacs are more likely to collapse, making breathing extremely difficult. At this point in pregnancy, surfactant production is

beginning but is generally insufficient for easy breathing outside the uterus.

This is why week 23 sits near the threshold of possible viability in some high-resource medical settings. Some infants born at this stage may survive with advanced neonatal intensive care, including respiratory support, temperature regulation, nutrition, infection prevention, and careful management of complications. However, survival and long-term outcomes vary widely based on gestational age, birth weight, fetal sex, antenatal steroid exposure when appropriate, infection status, the reason for preterm birth, and the level of neonatal care available.

If you are at risk of preterm birth, your clinician may discuss hospital evaluation, monitoring, medications, or transfer to a facility with an appropriate neonatal intensive care unit. Decisions at this gestational age are complex and should be individualized with obstetric, neonatal, and sometimes -fetal medicine teams.

Weight gain: fetal fat, maternal changes, and healthy expectations

At 23 weeks, fetal weight gain begins to become a more prominent part of . The baby is starting to add body fat, although most fat accumulation occurs later in the second trimester and throughout the third trimester. Fat stores are important for energy balance, temperature regulation after birth, and a smoother transition to life outside the uterus.

Maternal weight gain also becomes more noticeable around this time. Weight gain in pregnancy includes the fetus, placenta, amniotic fluid, enlarged uterus, increased blood volume, breast tissue changes, extracellular fluid, and maternal energy stores. The amount considered healthy depends on pre-pregnancy body mass index, whether this is a singleton or multiple pregnancy, medical conditions, and your clinician’s recommendations.

Rather than focusing only on the scale, it is usually more useful to consider the pattern. Sudden weight gain with swelling, headache, vision changes, or upper abdominal pain can be concerning and should be reported promptly because it may signal hypertensive disorders of pregnancy. Conversely, inadequate weight gain, persistent vomiting, food insecurity, or inability to maintain nutrition also deserves support and medical attention.

A balanced approach typically includes protein-containing foods, iron-rich foods, folate, calcium, vitamin D, omega-3 sources when appropriate, fiber, and adequate hydration. Prenatal vitamins can help fill nutritional gaps but do not replace food intake. If you have gestational diabetes, hypertension, a history of eating disorder, bariatric surgery, hyperemesis, or other medical concerns, nutrition advice should be individualized.

Amniotic fluid, swallowing, and fetal practice behaviors

Amniotic fluid is more than a protective cushion. It supports lung development, permits movement, helps maintain a stable environment, and allows the fetus to practice swallowing and other reflexive behaviors. The fetus swallows amniotic fluid, and the digestive system continues to mature as this cycle progresses.

Although the baby does not breathe air in the uterus, fetal breathing-like movements may occur. These movements help develop respiratory muscles and lung mechanics, even though oxygen still comes through the placenta. The placenta remains the essential organ for fetal oxygenation, nutrient transfer, and waste removal.

Clinicians may assess amniotic fluid during ultrasound when indicated. Too little or too much fluid can be associated with different maternal, placental, fetal, or membrane-related conditions. A single measurement does not always define a problem, so interpretation should be done by a qualified healthcare professional in the context of the full pregnancy picture.

What you may feel at 23 weeks

Many symptoms at 23 weeks are related to uterine growth, hormonal changes, and changes in circulation and connective tissue. These can be uncomfortable without necessarily being dangerous, but it is still appropriate to ask questions during prenatal visits.

Round ligament pain: Sharp or pulling sensations in the lower abdomen or groin can occur as ligaments stretch. Pain that is severe, persistent, one-sided with other symptoms, or associated with bleeding should be evaluated.
Back, hip, or pelvic discomfort: Shifting posture and ligament relaxation can

increase strain. Supportive shoes, side sleeping with pillows, and clinician-approved exercise may help.
Heartburn and constipation: Progesterone slows gastrointestinal motility, and the growing uterus can increase pressure. Hydration, fiber, smaller meals, and medical guidance for safe medications may be useful.
Leg cramps or mild swelling: These are common, especially later in the day. Sudden, severe, asymmetric leg swelling or pain should be assessed urgently for possible clot-related concerns.
Braxton Hicks contractions: Irregular, mild tightening may occur. Regular, painful, increasing contractions or tightening with pelvic pressure, bleeding, or fluid leakage should be treated as potentially urgent.

Prenatal care considerations this week

Routine prenatal care around this period often focuses on blood pressure, weight pattern, fetal heart rate, symptoms, and planning for upcoming screening. Depending on your care schedule and local guidelines, screening for gestational diabetes often occurs later, commonly between 24 and 28 weeks, though earlier screening may be recommended for some people.

If you had an anatomy scan around 18 to 22 weeks, your clinician may review any follow-up needs. Sometimes additional imaging is recommended because of fetal position, incomplete views, placental location, cervical length concerns, growth questions, or maternal medical history. Needing a repeat view does not automatically mean something is wrong.

This is also a reasonable time to discuss practical topics: how to contact your care team after hours, what hospital or birth center to use, whether you need a higher-level facility, vaccination timing, safe physical activity, travel considerations, work accommodations, and mental health support. Anxiety often increases when fetal viability is discussed, especially for people with previous loss or preterm birth. If worry is interfering with sleep, appetite, relationships, or daily functioning, compassionate help is available.