

Week 24 of pregnancy: viability milestone and nervous system development



Understanding the 24-week viability milestone

In obstetrics, viability refers to the possibility that a baby born preterm may survive outside the uterus with support. Week 24 is often described as an important threshold because survival becomes more possible than in earlier weeks, especially in hospitals with high-level neonatal intensive care units. However, viability is not a single fixed line. It is a clinical concept shaped by gestational age, fetal growth, available technology, and the baby's condition at birth.

A baby born at 24 weeks is considered extremely preterm. At this stage, survival may be possible, but it often requires intensive interventions such as help with breathing, temperature regulation, nutrition through intravenous lines or feeding tubes, infection prevention, and close monitoring for complications affecting the brain, lungs, intestines, eyes, and heart. Families facing a possible at this gestation usually need detailed counseling from obstetric, maternal-fetal medicine, and neonatal specialists.

The most reassuring message, when pregnancy is stable, is that each additional day and week can matter. Continuing pregnancy from 24 to 25, 26, or 28 weeks can significantly improve survival probabilities and reduce the risk of

long-term complications. If you are 24 weeks pregnant and not experiencing concerning symptoms, this milestone may be a moment to acknowledge progress while continuing routine care.

Why 24-week birth still carries major medical risks

The central challenge at 24 is that multiple organs are still immature. The lungs are a major concern. The air sacs and blood vessels needed for efficient oxygen exchange are still developing, and surfactant, the substance that helps keep the tiny air sacs open, may be insufficient. This is why extremely preterm babies commonly need respiratory support, and why clinicians may recommend antenatal corticosteroids when preterm birth appears likely. These medications can help accelerate aspects of lung maturation and may improve outcomes, but decisions about timing and use must be made by a healthcare professional.

Other systems also remain vulnerable. The baby's blood vessels can be fragile, increasing concern for bleeding in or around the ventricles. The immune system is underdeveloped, making infection more dangerous. The gut may not be ready for full feeding. Skin is thin, heat loss is rapid, and the baby may have difficulty maintaining blood sugar and balance. These risks do not mean that poor outcomes are inevitable, but they explain why 24-week birth is especially complex.

For parents, discussions about viability can be emotionally intense. It is normal to feel hope, fear, confusion, or grief if preterm birth is threatened. Ask your care team to explain what the local neonatal unit can provide, what the likely interventions are, what outcomes are seen at that center, and how your own pregnancy factors influence the picture.

Nervous system development at week 24

At 24 weeks, the fetus is undergoing rapid structural and functional development. Neurons are forming increasingly complex connections, and the brain is becoming better able to coordinate and respond to sensory input. The cerebral cortex, which is involved in higher-level processing, continues to mature, while deeper brain structures help regulate basic functions and patterns.

You may notice more defined patterns of fetal activity. Kicks, rolls, stretches, and startle-like reflexes can become stronger as the brain and muscles communicate.

more effectively. The fetus may respond to in your position, sounds, or other stimuli, although these responses are still developing and can vary widely. Periods of activity and quiet may begin to feel more recognizable, even if a predictable daily pattern has not yet emerged.

Sensory is also advancing. Hearing pathways are maturing, and the fetus can be exposed to internal sounds such as your heartbeat, blood flow, and digestion, as well as muffled external sounds. Touch and feedback help the developing brain map the body. These experiences contribute to neurological organization, but they occur within the protected environment of the uterus, which remains the ideal setting for at this stage.

What you may be feeling physically

At 24 , many pregnant notice a growing abdomen, more frequent , in posture, and stretching sensations in the lower abdomen or pelvis. Braxton Hicks contractions may occur as brief, irregular tightenings, especially after activity, dehydration, or a full bladder. They not become progressively painful, regular, or associated with bleeding, fluid leakage, or pelvic pressure.

Common symptoms can include heartburn, constipation, leg cramps, nasal congestion, backache, and sleep disruption. Some people experience round ligament pain, which can feel sharp or pulling with . While these symptoms are often part of a normal pregnancy, new, severe, or persistent symptoms be discussed with your maternity care team.

This is also a time when routine prenatal care may focus on blood pressure, urine testing when indicated, growth, and planning for gestational diabetes , which is commonly performed around 24 to 28 depending on local practice. If you have a higher-risk pregnancy, such as a history of preterm birth, multiple pregnancy, cervical shortening, hypertension, diabetes, or fetal´ growth concerns, your monitoring schedule may be more individualized.

When to seek urgent medical advice

Regular contractions, cramping, or tightening that does not settle with rest and hydration.

Fluid leaking from the vagina, a gush of fluid, or persistent wetness that could suggest ruptured membranes.

Vaginal bleeding, significant pelvic pressure, or new severe back pain.

Fever, chills, painful urination, or symptoms suggesting infection.

Severe headache, visual changes, right upper abdominal pain, sudden swelling, or very high blood pressure readings if you monitor at home.

A noticeable decrease in fetal movement compared with what is usual for you, especially if it persists.

Supporting fetal brain and body development

There is no special technique that can guarantee neurological outcomes, but consistent prenatal care and attention to maternal health support the best possible environment for fetal development. Nutrition, sleep, hydration, appropriate physical activity, and management of chronic conditions all matter. If you take medications, supplements, or herbal products, review them with your healthcare professional rather than stopping or starting anything on your own.

Protective steps include attending scheduled visits, reporting concerning symptoms promptly, avoiding tobacco and non-prescribed substances, following guidance about alcohol avoidance, and receiving recommended vaccinations when appropriate. If your pregnancy has risk factors for preterm birth, your clinician may discuss cervical length monitoring, progesterone in selected circumstances, infection evaluation, or other individualized strategies.

Emotional wellbeing is also part of pregnancy care. Reaching the viability milestone can bring relief, but it can also heighten anxiety about preterm birth. If you find yourself repeatedly checking symptoms, unable to sleep because of worry, or feeling overwhelmed, tell your care team. Mental health support during pregnancy is healthcare, not a luxury.

Questions to ask at your 24-week visit

Is my pregnancy currently considered low risk or higher risk for preterm birth?

What symptoms should lead me to call the clinic, maternity triage, or emergency services?

When will I have gestational diabetes and any follow-up tests?

Is my blood pressure, weight trend, and fetal growth appropriate so far?

If I were at risk of early delivery, where would I be cared for and what neonatal services are available?

How should I monitor fetal at this stage, and when does formal kick counting usually begin in your practice?