MYTHS VS FACTS

June 2025

YOUR QUESTIONS ANSWERED

SOAP Society for Obstetric Anesthesia and Perinatology

A Product of the SOAP Patient Education Subcommittee

Myth: "Labor epidurals often don't work."

The vast majority of labor epidurals provide adequate pain relief for patients in labor. On occasion, epidural catheters may have to be replaced to optimize patient comfort. Specific techniques such as patient positioning and feedback during insertion, selective use of pre-procedure ultrasound, type of neuraxial procedure performed (epidural, combined spinal epidural or dural puncture epidural technique) and selection of type and dose of neuraxial medication influence speed and success in labor pain relief. Sensory transmission of labor pain evolves throughout labor such that insufficient block of nerves related to local anesthetic concentration and spread of local anesthetic can be revealed as the patient progresses to late Stage 1 and Stage 2 of labor. Obstetric Anesthesiology providers expect to re-evaluate, bolus, and occasionally readjust and/or replace catheters as needed. This ensures ongoing analgesia and likely success if conversion to anesthesia for cesarean delivery is needed. In addition to effective labor analgesia, many patient and situational variables influence patient satisfaction with the birthing process, such as maternal expectations, perceptions of support, empowerment or disparate care, maternal-infant bonding opportunities, and pre-existing mental health determinants.

Further Reading:

1. Anim-Somuah M, Smyth RM, Cyna AM, Cuthbert A. Epidural versus non-epidural or no analgesia for pain management in labour. Cochrane Database Syst Rev. 2018 May 21;5(5):CD000331.
2. Nanji JA, Carvalho B. Pain management during labor and vaginal birth. Best Pract Res Clin Obstet Gynaecol. 2020 Jun;67:100-112.
3. Janevic T, Sacks LM, Low LK, Cheng YW, Kukla R, Malone FD. Racial/ethnic disparities in severe maternal morbidity and mortality among women with intersectional marginalized identities. Matern Child Health J. 2021 Jun;25(6):860-869.
4. Reale S. Pharmacologic management of pain during labor and delivery. In: UpToDate. Crowley M (Ed). Accessed [Date Accessed].

Myth: "Pain relief after lumbar epidural insertion early in Stage 1 of labor predicts patient comfort throughout the labor and delivery process."

Pain relief during stage 1 is not always a good predictor of patient comfort during stage 2. Assessment of patient comfort after epidural insertion early in labor does not predict adequacy of pain management throughout labor or likelihood of successful conversion to anesthesia for cesarean delivery. Specifically, sensory testing of the block is also required to project adequacy of the block for labor progression and conversion to anesthesia for cesarean delivery. The actual nerve distribution, type, and ease of local anesthetic blockade evolve throughout the course and stages of labor. Early Stage 1 labor pain, due primarily to stretching of the uterus is transmitted by the small unmyelinated nerve fibers which are easily modulated by dilute local anesthetics and/or opioids. In contrast, the myelinated somatic sacral nerve fibers that transmit pain associated with stretching and tearing of the exo-cervix and vagina/perineum during late Stage 1 and Stage 2 of labor require longer local anesthetic exposure times and higher concentrations to block pain transmission. Thus, effective labor epidural evaluation includes asking the patient about the presence and location of pain and testing of the sensory block (and at times the lower extremity motor strength). This allows the anesthesia provider to prevent and /or correct potential inadequacies in the block. Obstetric Anesthesiologists expect to perform ongoing evaluations and interventions for to maintain effective epidural analgesia throughout labor.

Further Reading:

1. Tan HS, Carvalho B. Neuraxial labor analgesia: Clinical pearls. Anesthesiology. 2022 May;136(5):678-687.
2. American College of Obstetricians and Gynecologists. Obstetric analgesia and anesthesia. ACOG Practice Bulletin No. 209. Obstet Gynecol. 2019 Mar;133(3):e208-e225.
3. Toledano RA, Leffert-Schwamm L. Neuraxial analgesia for labor and delivery (including instrumental delivery). In: UpToDate. Hepner D (Ed). Accessed [Date Accessed].
4. Reale S. Pharmacologic management of pain during labor and delivery. In: UpToDate. Crowley M (Ed). Accessed [Date Accessed].

Myth: "Sensations of rectal pressure and pain are expected throughout labor with epidural analgesia in place."

Although some patients will feel rectal pressure during labor, the majority of patients who receive epidural analgesia are comfortable and do not complain of rectal pressure. Effective epidural analgesia relieves visceral-related abdominal and rectal discomfort until transition (late Stage 1) and delivery when dilute concentrations (analgesic) of local anesthetic are not expected to block the sensation of rectal pressure transmitted by sacral (S2-4) nerve fibers. Generally, rectal or vaginal discomfort occurring prior to the active phase of labor or vaginal pain anytime reflects inadequate epidural blockade of S2-4 nerve. Intolerable rectal discomfort during late Stage 1 and delivery can also reflect inadequate blockade of S2-4 pain-transmitting fibers sacral nerve coverage. Specific deficits in sacral sensory blocks can often be identified by testing perineal or ventral foot sensation to "cold" and corrected with epidural catheter manipulation and/or large volume or more concentrated local anesthetic administration. In addition, the use of non-local anesthetic adjuvants may help reduce the dose of local anesthetic. Thus, it is recommended that the anesthesia provider be notified anytime a patient experiences intolerable discomfort (including rectal) that is not relieved by the patient-controlled epidural bolus feature. This allows the anesthesia provider the opportunity to evaluate and optimize the function. Initiation of epidural analgesia with either combined spinal epidural or dural puncture epidural technique can improve perineal comfort throughout the birthing process.

Further Reading:
1. Nanji JA, Carvalho B. Pain management during labor and vaginal birth. Best Pract Res Clin Obstet Gynaecol. 2020 Jun;67:100-112.
2. Reale S. Pharmacologic management of pain during labor and delivery. In: UpToDate. Crowley M (Ed). Accessed October 30, 2024.
3. Wong C. Epidural and Spinal Analgesia: Anesthesia for Labor and Vaginal Delivery. In: Chestnut's Obstetric Anesthesia: Principles and Practice. 6th ed. Chestnut DH, ed. Philadelphia, PA: Elsevier; 2020:474-539.

Myth: "There is a limited time window to get an epidural."

An epidural can be placed at the beginning, middle, or even at the end of labor. In fact, epidurals can even be safely placed in patients that are fully dilated. The only timing criteria is that the anesthesia professional requires time to place the epidural and administer medication through it. Placing an epidural requires the patient to be still, whether in sitting or lateral position, for about 10 to 15 minutes on average. However, if a patient comes to the hospital close to delivery or decides to get an epidural too close to giving birth, there may not be enough time to place it, or for the medicine to fully take effect before the baby is born.

Further Reading:
1. Callahan E, Lee W, Aleshi P, George RB. Modern labor epidural analgesia: implications for labor outcomes and maternal-fetal health. Am J Obstet Gynecol. 2023 May;228(5S):S1260-S1269.

Myth: "Epidurals increase your risk of needing C-section."

Many important research studies have shown that getting labor epidural analgesia does not increase the risk that patients will deliver via Cesarean. Studies, particularly those after 2005 when the use of more dilute local anesthetic solutions became accepted practice, also show that getting labor epidural analgesia does not increase the likelihood that a patient will need a vacuum or forceps-assisted vaginal delivery. Labor epidural analgesia blocks the pain experienced during labor but should not prevent patients from pushing. Careful management of the height of the sensory block, rapid treatment of maternal hypotension, and the use of dilute local anesthetic solutions minimize the risk of non-reassuring fetal heart tones. In current practice, epidural medication should not cause labor dystocia.

Further Reading:
1. Anim-Somuah M, Smyth RM, Cyna AM, Cuthbert A. Epidural versus non-epidural or no analgesia for pain management in labour. Cochrane Database Syst Rev. 2018 May 21;5(5):CD000331.
2. Callahan E, Lee W, Aleshi P, George RB. Modern labor epidural analgesia: implications for labor outcomes and maternal-fetal health. Am J Obstet Gynecol. 2023 May;228(5S):S1260-S1269.
3. Wong CA, McCarthy RJ, Sullivan JT, Scavone BM, Gerber SE, Yaghmour E, et al. Early compared with late neuraxial analgesia in nulliparous labor induction: a randomized controlled trial. Obstet Gynecol. 2009 May;113(5):1066-1074.
4. Wong CA, Scavone BM, Peaceman AM, McCarthy RJ, Sullivan JT, Diaz NT, et al. The risk of cesarean delivery with neuraxial analgesia given early versus late in labor. N Engl J Med. 2005 Feb 17;352(7):655-65.

Myth: "Epidural analgesia will negatively prolong labor."

While it is generally accepted that labor epidurals prolong labor, there are some well-designed studies that have even demonstrated a shortened first stage of labor with a labor epidural. It is unclear why this is the case. However, most people favor the large meta-analysis performed by the Cochrane review which demonstrates that the first stage is prolonged on average by 30 minutes and the second stage by 15 minutes. It is unclear if this is at all clinically relevant but there is strong evidence to suggest that labor is longer than it would be without a labor epidural. This prolongation is not linked to an increase in Cesarean rates.

Further Reading:
1. Wong CA, Scavone BM, Peaceman AM, McCarthy RJ, Sullivan JT, Diaz NT, et al. The risk of cesarean delivery with neuraxial analgesia given early versus late in labor. N Engl J Med. 2005 Feb 17;352(7):655-65.
2. Anim-Somuah M, Smyth RM, Cyna AM, Cuthbert A. Epidural versus non-epidural or no analgesia for pain management in labour. Cochrane Database Syst Rev. 2018 May 21;5(5):CD000331.

Myth: "Epidurals make pushing difficult."

The American College of Obstetricians and Gynecologists, ACOG, recommends giving an additional hour of pushing to a patient with a labor epidural. This recommendation acknowledges that an epidural may very well increase your "pushing" time. However, it is important to recognize that different medications and techniques of medication administration are used in different labor and delivery units across the country. How the medications are used is an important factor in how the second stage is affected. A Cochrane review used a large meta-analysis that determined on average the second stage is prolonged by 15 minutes. This is an average and depending on the situation, it could be less or more. It is important to acknowledge that indeed a labor epidural can affect the second stage. However, given the dosing recommendations in the modern practice of Obstetric Anesthesia, this prolongation in labor is just not as dramatic as once thought. Finally, it should be noted that a labor epidural does not lead to an increased rate of cesarean deliveries.

Further Reading:

1. Callahan E, Lee W, Aleshi P, George RB. Modern labor epidural analgesia: implications for labor outcomes and maternal-fetal health. Am J Obstet Gynecol. 2023 May;228(5S):S1260-S1269.
2. American College of Obstetricians and Gynecologists. First and second stage of labor management. Clinical Practice Guideline No. 8. Obstet Gynecol. 2024;143:144-62.

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