Spontaneous Labor

Early, Stage 1 Labor

- As long as maternal-fetal conditions permit, consider ambulation, coping skills, intermittent auscultation
- In the low risk patient who is coping well, consider discharge to home between 3 and 6 cm

- As long as maternal-fetal conditions permit, offer coping skills and encourage discharge to home

At least 3 cm dilation

- August labor by oxytocin and/or amniotomy

- Latent labor (< 6 cm) exceeds 24 hours or
- At least 12 - 18 hours of oxytocin administration following amniotomy

Progress 3 to 6 cm (median and 95% metrics)
- Nulliparous: 3.9 h, 17.7 h
- Multiparous: 2.2 h, 10.7 h

Normal progress to 6 cm dilation

Augment labor by oxytocin and/or amniotomy

Active, Stage 1 Labor (6 cm dilation)

Progress 6 - 10 cm (median and 95% metrics)
- Nulliparous: 2.1 h, 7 h
- Multiparous: 1.5 h, 5.1 h

Normal progress to 10 cm dilation

Augment labor by oxytocin and/or amniotomy

Preferably after amniotomy, no cervical change for 4 h with adequate contractions or 6 h with inadequate contractions

Active phase arrest

Cesarean delivery

Stage 2 Labor (10 cm dilation)

- Progressive descent and rotation

- Vaginal delivery

- Promoting vaginal delivery
  - Early recognition malposition
  - Frequent position change to allow rotation of fetal vertex
  - Judicious operative vaginal delivery and/or manual rotation

- No additional descent, rotation
  - Nulliparous: 3 h without epidural or 4 h with epidural
  - Multiparous: 2 h without epidural or 3 h with epidural

- Continued descent and rotation

- Second stage arrest

**Definition of Abnormal Labor:**

<table>
<thead>
<tr>
<th></th>
<th>Nulliparous</th>
<th>Multiparous (informational only)</th>
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</thead>
<tbody>
<tr>
<td>Early labor (3 to 6 cm)</td>
<td>Median 3.9 h</td>
<td>Median 2.2</td>
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<tr>
<td></td>
<td>95% 17.7 h</td>
<td>95% 10.7 h</td>
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<tr>
<td>Consider cesarean delivery when:</td>
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<tr>
<td>- Less than 6 cm, preferably with ruptured membranes and</td>
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<td>- Length of latent labor exceeds 24 hours or</td>
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<td>- At least 12 - 18 hours of oxytocin administration following</td>
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<tr>
<td>Active labor (6 to 10 cm)</td>
<td>Median 2.1 h</td>
<td>Median 1.5 h</td>
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<td></td>
<td>95% 7 h</td>
<td>95% 5.1 h</td>
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<tr>
<td>Active phase arrest</td>
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<tr>
<td>- At least 6 cm, preferably with ruptured membranes and</td>
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<tr>
<td>- 4 hours: no cervical change and adequate contractions (greater than 200 Montevideo Units (MVU) or strong intensity contractions occurring every 3 minutes) or</td>
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<td>- 5 hours with Pitocin: no cervical change and inadequate contractions</td>
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<td>Second stage arrest, no descent or rotation for at least:</td>
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<tr>
<td>Nulliparous</td>
<td>3 h without epidural</td>
<td>2 h without epidural</td>
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<tr>
<td></td>
<td>4 with epidural</td>
<td>3 with epidural</td>
</tr>
</tbody>
</table>

(Zhang, Obstet Gynecol 2010;116:1281-7 and Spong, Obstet Gynecol 2012;120:1811-33)

**Promoting Vaginal Delivery in the First Stage of Labor**

- Encourage ambulation, frequent position change, use of birthing ball, coping with labor pain, and delaying admission until at least 6 or more cm dilation.
- Some methods to promote coping in labor include: hot and cold packs, sterile water injections, massage or pressure, hypnosis, TENS unit.
- In the stable patient who is coping well and has cervical dilation between 3 and 6 cm, consider discharging this patient to home after a thorough discussion about the risks and benefits of early admission using the shared decision model discussed elsewhere in this tool kit.
- In low-risk patients, consider IA (intermittent auscultation) for those patients without fetal heart rate abnormalities.
- Unless medically required, allow adequate time for labor to progress in the first stage and defer diagnosis of active labor until 6 cm dilation.
- As long as maternal-fetal conditions permit, cesarean delivery for a prolonged latent phase is not indicated when slow, progressive cervical change occurs.
- The presence of moderate variability and accelerations (either spontaneous or stimulated) has little association with acidosis or neurological injury.

**Promoting Vaginal Delivery in the Second Stage of Labor**

- If maternal-fetal conditions permit, allow passive descent and physiologic rest for the mother who does not have an urge to valsalva.
- Allow longer pushing times if neuraxial anesthesia present.
- Use of maternal squat bar, side lying with an open pelvis, peanut ball, and frequent position change facilitates fetal rotation.
- For slow progress, ask for bedside evaluation to diagnose possible fetal malposition; if present, consider rotation.
- Consider judicious operative vaginal delivery in appropriate candidates.
- Consider 3 to 4 open glottis pushing efforts for 6 - 8 seconds per contraction or pushing efforts with every other contraction when a category 2 electronic fetal monitoring tracing exists.