

# Vaginal Birth After Cesarean (VBAC)

## Provider Fact Sheet for Risks and Benefits

### Maternal Benefits

- Avoidance of additional uterine scarring impacting future pregnancies<sup>1</sup>
  - Abnormal placentation<sup>2</sup>
  - Stillbirth<sup>1</sup>
  - Subfertility<sup>3</sup>
- Avoidance of increased risk of chronic pain<sup>4,5</sup>
- Avoidance of operative complications<sup>6,7</sup>
- Breastfeeding outcomes<sup>8</sup>
- Faster recovery<sup>9</sup>
- Lower incidence of hemorrhage and transfusion<sup>7,10</sup>
- Lower incidence of hysterectomy<sup>11</sup>
- Lower rates of infection<sup>6</sup>
- Patient satisfaction<sup>12</sup>
- Psychological benefits\*<sup>13</sup>
- Shorter hospitalizations<sup>7,10</sup>

\*May be present even if the trial of labor fails<sup>12</sup>

### Maternal Risks

- Uterine rupture (with low transverse scar)
  - Incidence<sup>14</sup>
    - 0.7-0.9% with one prior cesarean
    - 0.9-1.8% with two or more cesareans
  - These factors are associated with increased risk of uterine rupture
    - Cervical ripening, labor induction, and labor augmentation<sup>15,16,17</sup>
    - Febrile episodes during prior cesarean recovery<sup>18</sup>
    - Fetal weight  $\geq 4000$  gms<sup>19</sup>
    - Increased maternal age<sup>20</sup>
    - Maternal morbid obesity<sup>21</sup>
    - Short interdelivery interval<sup>22,23</sup>
    - Single suture layer closure of prior uterine incision<sup>24,25</sup>
    - Uterine scar type and number of prior cesareans<sup>14,26,27,28</sup>
- Risks associated with a failed trial of labor after cesarean (TOLAC)<sup>6,10,17,29</sup>
  - Chorioamnionitis/Endometritis<sup>6,17</sup>
  - Hemorrhage/Need for transfusion<sup>6,7,29</sup>
  - Hysterectomy<sup>6,17</sup>
  - Operative injury<sup>10,29</sup>
  - Uterine dehiscence<sup>17</sup>

### Fetal/Neonatal Benefits (by avoiding a repeat cesarean)

- Decreased incidence of NICU admissions<sup>7</sup>
- Decreased risk of allergies and gastroenteritis after one year of age<sup>30</sup>
- Decreased risk of asthma<sup>31,32</sup>
- Decreased risk of respiratory morbidity<sup>29,33,34</sup>
- Earlier maternal-infant contact<sup>35,36</sup>
- Increased rate of breastfeeding success<sup>8,37</sup>
- No risk of surgical injury<sup>38</sup>

### Fetal/Neonatal Risks

- With a successful VBAC, as with vaginal delivery, the neonate has an increased incidence of:
  - Brachial plexus injury occurs in 7.7 per 10,000 vaginal births vs. 3.0 per 10,000 delivered by cesarean<sup>39</sup>
  - Shoulder dystocia occurs in 0.5-1.5% of vaginal births<sup>40</sup>

# Elective Repeat Cesarean Birth

## Provider Fact Sheet for Risks and Benefits

### Maternal Benefits

- Avoidance of complications associated with failed trial of labor including:<sup>6,17,29</sup>
  - Chorioamnionitis<sup>6,29</sup>
  - Hysterectomy<sup>6</sup>
  - Transfusion<sup>6,29</sup>
  - Uterine rupture<sup>17,29</sup>
- Avoidance of pain associated with labor<sup>41</sup>
- Convenience of scheduling<sup>41,42</sup>

### Maternal Risks

- Current pregnancy and delivery<sup>2,36,43</sup>
  - Damage to surrounding organs<sup>2</sup>
  - Hemorrhage<sup>36</sup>
  - Infection<sup>43</sup>
  - Postpartum pain<sup>44</sup>
  - Rehospitalization<sup>43,45</sup>
  - Thromboembolic conditions<sup>2,36</sup>
- Future pregnancies<sup>46</sup>.
  - Abnormal placentation<sup>2</sup>
  - Abruptio and uterine rupture<sup>47</sup>
  - Antepartal fetal death<sup>48</sup>
  - Antepartal hemorrhage<sup>46</sup>
  - Increased rate of morbidities with each cesarean<sup>2</sup>
  - Malpresentation<sup>46</sup>
  - Preterm birth<sup>1,46</sup>
  - Prolonged labor<sup>46</sup>
  - Small for gestational age (SGA)<sup>1</sup>
  - Stillbirth (1.1 per 1000 vs. 0.5 in 1000)<sup>1</sup>
  - Subfertility<sup>3,5</sup>
- Long term impact on maternal health<sup>4,5</sup>
  - Adhesion development<sup>5</sup>
  - Chronic incisional pain<sup>4</sup>

### Fetal/Neonatal Benefits

- Avoidance of risks associated with a failed trial of labor which may include:
  - Neonatal jaundice, sepsis, RDS, hypoglycemia, acidosis, pneumonia<sup>6,33</sup>
- Decreased incidence of NICU admissions, hypoxic-ischemic encephalopathy and other sequelae associated with uterine rupture<sup>17,49</sup>

### Fetal/Neonatal Risks

- Breastfeeding issues including non-initiation, delayed initiation, and shorter duration<sup>8,37</sup>
- Delayed maternal-infant contact<sup>35</sup>
- Increased risk of allergies and gastroenteritis after one year of age<sup>30</sup>
- Increased risk of asthma<sup>31,32</sup>
- Increased risk of respiratory morbidity<sup>29,33,34</sup>
- Risk of surgical injury<sup>38</sup>