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## The Real Risks for Cesareans: An Expert Interview With Pamela K. Spry, BSN, MS, PhD

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### **Editor's Note:**

*Cesarean section (c-section) is the most commonly performed surgery in the United States. The frequency of surgical birth has increased from 4% in 1965 to about 33% today, despite World Health Organization (WHO) recommendations that a 5% to 10% rate is optimal and that a rate greater than 15% does more harm than good.<sup>[1-3]</sup>*

*Reasons for this increase have been discussed profusely:*

- *The surgical focus of obstetrics and the need to train residents;*
- *The low priority and few practical skills for supporting women's abilities to labor and give birth naturally;*
- *A rigid view of the duration of normal labor; and*
- *A low threshold of definition for 'labor dystocia' (the justification for up to 60% of cesarean births<sup>[4]</sup>).*

*Surgical birth is also a 'side effect' of interventions associated with actively managed labor: induction, artificial rupture of membranes, labor medications, and fetal monitoring.<sup>[5,6]</sup> Policies against vaginal birth after cesarean (VBAC) and, increasingly, unsupported 'supply-side' justifications such as "baby seems large," also drive the trend toward cesareans. A recent report by the Lamaze Institute associates surgical birth with obstetricians' personalities -- specifically their anxiety levels.<sup>[7-9]</sup>*

*The risks for birth by surgery have also come under discussion. Maternal risks include a higher overall death rate, rehospitalization for wound complications and infection, placenta accreta and percreta (both with 7% mortality rate), placenta previa, uterine rupture with subsequent pregnancy, and preterm birth, with its own set of risks and complications for the newborn.<sup>[10-15]</sup>*

*Pamela K. Spry, BSN, MS, PhD, the President of Lamaze International, a leading childbirth-advocacy group, spoke with us about the risks for birth by scalpel.*

**Medscape: Childbirth methods are often trend-driven. In the 1960s and 1970s, there was a big push for natural childbirth. What has driven women away from that method since then?**

**Dr. Spry:** In the 1960s, women were rebelling against twilight sleep -- childbirth under heavy narcotics that required being strapped down to the delivery table. There was also the push for fathers to be in the delivery room, which wasn't allowed, and certainly not during heavily sedated birth. Now we have a widespread availability of local and regional methods of pain relief that let women be awake and aware, share the birth with their families, and basically rely on technology to assist them at birth. I think this drive has been somewhat alleviated, but there is still a push for natural childbirth. This is the reason women are still seeking classes, making birth plans, and choosing home birth and birthing centers.

"Natural childbirth" can mean different things to different people. For Lamaze, it means a birth that's allowed to happen on its own without the use of unnecessary medical interventions, to provide women the safest and healthiest birth possible.

**Medscape: Are rates of surgical delivery being driven up by women or clinicians? Is this the age of Blackberry birth -- scheduling everything ahead of time?<sup>[16]</sup>**

**Dr. Spry:** Actually, there are 2 parts to this question. One is, what has driven up the rate of repeat cesareans, and that answer is easy: there has been a big decrease in the availability of choosing to labor and deliver vaginally (VBAC) after having 1 or 2 previous cesarean births, causing a huge increase in the rate of surgical delivery [for repeat cesareans]. Compared with the early 1990s when VBACs were encouraged and acceptable, many hospitals, insurance companies, and clinicians now refuse to allow women to try laboring after a previous c-section because of perceived medical and legal risks.

The second part of the question is whether women or clinicians are responsible for the increase in the primary c-section rate, and I think that's more difficult to answer. In a study of more than 1500 women, we tried to determine just that. The research results indicated that only 1 woman in the study actually reported that she requested a cesarean, which leaves the decision for the vast majority of cesarean deliveries up to clinicians. So understanding when cesareans are medically necessary, as well as the risks involved, is important in achieving a safe and healthy birth.

Although it might be convenient, babies who are born before they are ready are at increased risk for major medical problems.

**Medscape: Could fear be the reason for women agreeing to surgical birth? Are women enduring pain differently than in previous decades? Is the surgical scenario easier to contemplate than the unknowns of a natural labor and delivery?**

**Dr. Spry:** Exactly. I think all of that has to do with the fact that our culture actually breeds fear around childbirth. We've got TV shows, popular culture, and horror stories from friends and

families; women are taught to expect a negative experience and incredible pain. Lamaze is focused on trying to help women get the facts, know what to expect, and help take the fear out of the process. But the unknown parts, such as labor, its duration, birth, and even the unknown of when labor will start, makes it more appealing for some women to schedule a cesarean.

**Medscape: The culture of hospital obstetrics seems designed for interventions, with cesarean procedures bringing in more money than natural delivery. Do you think hospital financial incentives are a reason for the rise in cesareans? Or would the costs for longer hospital stays with cesarean procedures balance out the revenues from them?**<sup>[17]</sup>

**Dr. Spry:** I think that sometimes financial concerns, convenience, or concerns over lawsuits do rule medical decision-making around childbirth. When women have a good understanding of what constitutes quality care, they are in a better position to ask for it from their care providers. Interestingly enough, I just returned from our nurse-midwifery convention in Seattle, and I heard a speaker address this very thing: reducing the cesarean rate. Among his suggestions was the provocative notion that providers should be reimbursed the highest rate for labor and vaginal birth after cesarean, followed by labor and vaginal birth, and the lowest reimbursement for scheduled, elective cesarean delivery. That way, providers would be compensated for their actual time involved in the process, and scheduled c-sections would have the lowest reimbursement. He thought that would make a difference.

**Medscape: What are the main risks these days with c-sections? Are these risks underplayed by obstetricians, and, if so, why?**

**Dr. Spry:** Many of them were covered in the introduction. Any time we schedule a surgery or an induction, we are assuming that we know the baby's due date. Anything that's scheduled before a woman's estimated due date could result in a baby being born before it's ready. [And iatrogenic prematurity is a reality with any scheduled birth -- that is, due dates may have been calculated wrong and inadvertently, babies are born before they are actually term.] We're getting more research looking at the near-term preemie. We find that they have breathing and developmental problems and that the risk for death is increased. Certainly, cesarean delivery increases the risk for the baby being injured from the incision. Surgery also carries risks for women, such as blood loss, clotting, infections, severe pain, and adverse anesthesia-related events. This is something that we haven't focused on, and I'm not certain that informed consent includes this information -- that there are complications during future pregnancies and that it does risk future children. There is an increased risk for stillbirth with a second or third c-section, as well as placental problems like percreta and accreta (abnormal growth and attachment of the placenta into the uterus), increasing the risk for hemorrhage. Women may experience dire complications as a result -- bladder injury, hysterectomy, and maternal death. I don't know that I would describe these risks as "underplayed" by obstetricians, but rather that women are not prepared to ask the right questions that lead to informed decision-making.

It would be interesting to read the informed-consent documents for cesarean deliveries, and see what risks are included.

**Medscape:** A story in *The New York Times* recently reported that women who have c-sections seem to have fewer children. That story provoked over 200 comments, from women who have had all of their children by planned cesarean to women who had had births at home. A strong fear-driven contingent regarded childbirth as fraught with pain and danger, and that anyone who risked giving birth outside of a hospital was committing child abuse. Can you discuss any evidence comparing the risks to mothers and children between in-hospital and at-home births?<sup>[18]</sup>

**Dr. Spry:** A number of studies have looked at this. Some of the criticism of these studies has been that hospitals end up with higher-risk women, so it's an unfair comparison. But there are studies of low-risk women who had a planned home birth with a qualified birth attendant, compared with low-risk women who chose hospital births; the outcomes for home birth were better or as good as outcomes for women who birthed in hospitals.

Each study limits what kind of comparisons are made, but certainly women with previous surgical uterine scars, medical complications, or breech babies are all considered high-risk.

**Medscape:** The recovery period after any birth, from time immemorial known as the "lying-in" period, used to last several weeks after a birth. Now, even after surgical birth, women are up and around within a few days. Postpartum depression is another health consideration that has been much in the news lately. Do you think we have lost something with this shortened period of rest and recovery?<sup>[19]</sup>

**Dr. Spry:** I do. Studies have shown that it's better for mothers and babies to stay together after birth. Experts agree that unless a medical reason exists, healthy mothers and babies should not be separated following birth. Interrupting, delaying, or limiting the time that a mother and her baby spend together may have a harmful effect on their relationship and on breast-feeding. Babies stay warm, cry less, and have a better start on breast-feeding if moms and babies are together.

[As for the question about depression], women with postpartum depression do experience difficulty bonding with their babies. But this could be a result of depression rather than the cause, so it's really hard to answer [whether a shortened period of recovery is related to causing postpartum depression]. Most people get 6 weeks off of work, but even in those 6 weeks, women are still running around [trying to take care of other children, do chores, and manage the household]. I don't know whether we, as a culture, discourage mothers and babies to be together in the postpartum period by no longer posting signs on the doors that say "Don't knock, baby sleeping!" I'm just not aware of any comparative studies on how different postpartum protocols correlate with postpartum depression.

**Medscape: There's a marked trend toward inducing delivery -- vaginally or surgically -- before 40 weeks, with mounting evidence that this is risky business. Where is this coming from?**<sup>[20,21]</sup>

**Dr. Spry:** This increased induction rate has occurred for several reasons: the desire on the part of the women or the providers to arrange a convenient time for delivery. Again, it's a scheduling issue. Concerns about postmaturity, or a post-dates baby, with a fear of adverse outcome and litigation may have contributed to this. But despite the large number of women experiencing induction, one-half of the women who responded to the "Listening to Mothers" study said that they felt that labor should not be interfered with unless it's medically necessary. Eleven percent of the mothers also said that they had experienced some pressure from their care providers to have an induction. Lamaze gives this information to women to help them select their place of birth and communicate with their healthcare provider. These tools can assist women in having a safe and healthy birth.

**Medscape: Even truly full-term infants born by cesarean end up in intensive care more frequently than their vaginally born peers. Is this because such infants born by cesarean are high-risk to begin with, or is the procedure itself responsible for this?**

**Dr. Spry:** I think that it's both. I definitely think that some medically indicated surgical deliveries do end up with babies that were higher-risk to begin with. But if you compare low-risk babies that are born by cesarean with vaginal-birth babies, vaginal-birth babies do better. There is an increased likelihood of babies born surgically having problems with fluid in the lungs and less ability to clear it. So actually going through the birth canal seems to be better for the baby.

**Medscape: In 2005, surgical birth was the most common Medicaid-billed procedure, performed on women who are most likely at risk for the poorest aftercare, complications, and support. Why is this population at highest risk for c-section?**<sup>[21]</sup>

**Dr. Spry:** I don't think this statistic indicates that the Medicaid population is at highest risk if they were compared to the insured population. I think that a large part of the Medicaid population consists of pregnant women, because this is a time when they can get coverage. So Medicaid often ends at the 6-week postpartum exam. A childbearing woman would be more likely to be covered under Medicaid than a woman in her forties who needed gallbladder surgery.

There have been a couple of studies that looked at the cesarean delivery rate of women with private insurance delivering in private hospitals, and found that privately insured women had a higher surgical risk than the Medicaid population. The rate in New York was 30% for private vs 21% for Medicaid, if the Medicaid women delivered in a public hospital (a teaching hospital). So what has happened is that we've had somewhat of a shift of Medicaid patients moving into the private sector; they've shifted their deliveries from teaching hospitals to private institutions, and this has increased their probability for cesareans.

A study from Kaiser in California showed that this increased risk persists even after adjusting for patient demographics and clinical factors. The risk was associated not so much with Medicaid, but with delivering in a private institution. Teaching hospitals tend to follow evidence-based practice, and encourage women to deliver vaginally.

**Medscape: What's your perspective on recent reports about the rate of repeat cesareans jumping from 65% to 90% between 1997 and 2006?**<sup>[22]</sup>

**Dr. Spry:** Again, I think it's litigation fear. There have been more and more restrictions placed on women who want to have VBACs. Some insurance companies won't cover clinicians or hospitals [if they provide a trial of labor after cesarean; and] there are certainly clinicians who won't do VBACs. Women are finding it more and more difficult to seek and have a vaginal birth after a prior cesarean.

I just went to a conference where I talked to a number of women whose previous experience was with c-section, but who wanted a vaginal birth. Some of them chose home birth for their next pregnancies because it was their only option.

**Medscape: As the concept of birth transitions from a physical, sexual, and societal passage to a billable surgical procedure, placing women in a more passive role, how is the overall well-being of women affected?**

**Dr. Spry:** Within the maternity system, there's a distinct drive toward convenience: predictable process of labor and birth, maximized reimbursement, and limited liability. All of these factors can lead any care provider to make decisions that aren't necessarily based on the mother's and baby's needs. Women's decisions are affected as well, because without maximum reimbursement, they can't select a place of birth that they can't afford. I think it's critical for every birthing woman to recognize the realities of the environment and be prepared to advocate for herself, taking a more active role in her birth. This is something that Lamaze focuses on.

Studies have been done where a woman has experienced a kind of birth that she didn't want, and she felt that she had no control over it. Penny Simkin just gave an excellent talk on the risk of posttraumatic stress syndrome resulting from a birth in which a woman felt not in control, who felt decisions were made for her and were imposed on her. I think that sense of control is really important to the mental health and to the feeling of being competent and OK after birth.

**Medscape: Obstetrics is a surgical specialty. So far, the significant numbers of women now practicing in the field have done little to change the surgical view of birthing women. Do you think there will be a tipping point away from the surgical approach to birth among obstetricians?**

**Dr. Spry:** Sometimes it takes us years to figure out what we've been doing wrong; this is an alarming aspect of surgery, and few women are aware of the poor state of maternity care that

we have in the United States. Many women assume that because they're birthing in the United States, they're getting quality care. Research and outcome studies suggest that this isn't necessarily the case, but I don't think our population knows that yet. We're seeing an increased number of maternal deaths. We haven't seen an increase in maternal deaths in this country for a long time. [An example of a delay in recognizing risk of accepted treatment is, that] in the 1950s, 1960s, and 1970s, we gave diethylstilbestrol to women to prevent miscarriage. It wasn't until the next generation, and even after the next generation -- 30 years -- that we got rid of that practice. So I think change will come. And I think that we need to continue to perform research, monitor maternal morbidity, and look at these statistics, and then we'll see a shift.

The other issue is that really adverse, terrible events are rare; maternal deaths are rare, even though they are increasing. So an obstetrician having a personal experience of a maternal death is infrequent.

Essential skills are being lost in obstetrics -- for example, breech deliveries or twins. However, they are preserved in the world of midwifery.

I hope that we get the message across that women want and need a positive birthing experience, and that they will choose a birth team that will support that goal. We would like for everybody to have a safe and healthy birth.

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