Informed Pregnancy® and Parenting Podcast
'VBAC Facts' - Episode Three (3)

Show Notes

1. "Once a c-section, always a c-section" belief

Cragin, E.B. (1916). Conservatism in obstetrics. *NY Medical Journal, 104:* 1–3.

- *Dr. Cragin was urging conservatism in the use of cesarean*
- *C-section rates at that time were under 5%*
- *He meant to emphasize that one of the risks of a c-section is that repeat c-sections might be required*
- *However, he pointed out many exceptions to the rule (one of his patients had 3 VBACs)*

VBAC AND MULTIPLE C-SECTOIN RATES

2. 90% of women who have had a prior c-section have them for the rest of the pregnancies.

National Center for Health Statistics. (2013). User Guide to the 2012 Natality Public Use File. Hyattsville, Maryland : National Center for Health Statistics. ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/DVS/natality/UserGuide2012.pdf

3. Notable rise in c-section rates since the 1970s:

1970: 5.5%
1975: 10.4%
1980: about 16%
1985: 22.7%
1988: 24.7%2
1996: nearly 30%
2014: about 33%

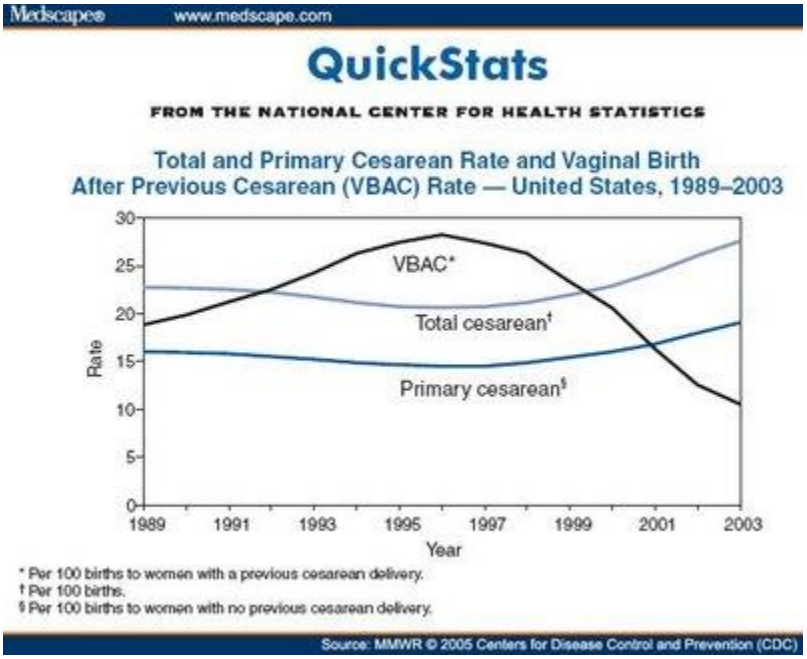
Centers for Disease Control and Prevention (CDC). (March, 2010). *NCHS Data Brief: Recent Trends in Cesarean Delivery in the United States.*

http://www.cdc.gov/nchs/data/databriefs/db35.htm

Centers for Disease Control and Prevention (CDC). Births - Method of Delivery http://www.cdc.gov/nchs/fastats/delivery.htm

http://www.cesareanrates.com/us-cesarean-rate-1970-2011/

Caughey, A.B. (2013). Vaginal Birth After Cesarean Delivery. Medscape. http://emedicine.medscape.com/article/272187-overview



4. There was a rise in VBACs in 1989, followed by decline to around 10% by the end of the 1990s.

The Well-Rounded Mama: A History of VBACs and Cesareans in the USA http://wellroundedmama.blogspot.com/2009/03/history-of-vbacs-and-cesareans-in-usa.html

- *Medical insurance had started to support VBACs because they were less expensive.*

  In some areas of the country, VBAC became required and women who were not great VBAC candidates, and women VBACing in crowded hospitals, had bad outcomes. At that time, we did not understand the increased risk that accompanies elective induction in a VBAC. These factors converged and

resulted in lawsuits with large settlements, and people began asking if VBAC was really worth the risk of being sued. But according to a study (Clark 2008) shared at the 2010 NIH VBAC Conference, 80% of those VBAC lawsuits were potentially avoidable, not by mandating repeat cesareans but by reserving inductions in VBACs for medical indication.

Clark, S.L., Belfort, M.A., Dildy, G.A., Meyers, J.A. (2008). Reducing Obstetric Litigation through Alteration in Practice Patterns. *Obstet Gynecol, 112*:1279–83.

ACOG STATEMENTS

5. In 2010, the American Congress of Obstetricians and Gynecologists (ACOG) reported that VBAC is a reasonable and appropriate choice for most women with one prior cesarean and for "some women" with two prior cesareans. Being pregnant with twins, going over 40 weeks, having an unknown or low vertical scar, or suspecting a "big baby" should not prevent a woman from planning a VBAC.

The American College of Obstetricians and Gynecologists. (2010). Vaginal Birth After Previous Cesarean Delivery. Practice Bulletin #115. www.acog.org/~/media/Practice%20Bulletins/Committee%20on%20Practice%20Bulletins%20--%20Obstetrics/pb115.pdf?dmc=1&ts

6. **ACOG is clear about when induction is indicated. The following conditions are not on the list:**

- Thin uterus
- Big baby
- 40 weeks gestation

The American College of Obstetricians and Gynecologists. (2009). Induction of labor. Practice Bulletin #107. doi: 10.1097/AOG.0b013e3181b48ef5. http://amoripat.com/_assets/acog--practice_bulletin_107_2009.pdf

7. ACOG says that we need to move to a more collaborative model where patients and doctors work together to build a customized, individualized care

plan for her based on her risks and benefits, her medical history, what she wants, etc.

American College of Obstetricians and Gynecologists. (2013). Elective surgery and patient choice. Committee Opinion No. 578. *Obstet Gynecol, 122*, 1134–8. Retrieved from www.acog.org/Resources_And_Publications/Committee_Opinions/Committee_on_Ethics/Elective_Surgery_and_Patient_Choice

8. 2010 ACOG VBAC guidelines: "A trial of labor after previous cesarean delivery should be undertaken at facilities capable of emergency deliveries. Because of the risks associated with TOLAC and that uterine rupture and other complications may be unpredictable, the College recommends that TOLAC be undertaken in facilities with staff immediately available to provide emergency care. When resources for immediate cesarean delivery are not available, the College recommends that health care providers and patients considering TOLAC discuss the hospital's resources and availability of obstetric, pediatric, anesthetic, and operating room staffs. Respect for patient autonomy supports that patients should be allowed to accept increased levels of risk, however, patients should be clearly informed of such potential increase in risk and management alternatives."

American College of Obstetricians and Gynecologists. (2010). Practice Bulletin No. 115: Vaginal Birth After Previous Cesarean Delivery. *Obstetrics and Gynecology , 116* (2), 450-463. www.acog.org/Resources_And_Publications/Practice_Bulletins/Committee_on_Practice_Bulletins_--_Obstetrics/Vaginal_Birth_After_Previous_Cesarean_Delivery.

(Level C - based on Expert Opinion) More on different levels of evidence:
American Congress of Obstetricians and Gynecologists. (n.d.). *Reading the medical literature: Applying evidence to practice.* www.acog.org/Resources-And-Publications/Department-Publications/Reading-the-Medical-Literature

9. The term "immediately available" was undefined and unclear.

An informal survey conducted in Houston TX asked six different hospitals how they define "immediately available"…each defined very differently.

The "immediately available" recommendation was intended to make VBACs as safe as possible, but not to suggest that 24/7 anesthesia be required…75% of L&D units nationwide would close if this was the requirement.

Birnbach, D. J. (2010). Impact of anesthesiologists on the incidence of vaginal birth after cesarean in the United States: Role of anesthesia availability, productivity, guidelines, and patient safety. *Vaginal birth after cesarean: New Insights. Programs and Abstracts* (pp. 85-87). Bethesda: National Institutes of Health.
http://consensus.nih.gov/2010/vbacabstracts.htm#birnbach

10. ACOG uses the term physician and does not specify an obstetrician or anesthesiologist in regards to the "immediately available" recommendation.

American College of Obstetricians and Gynecologists. (2010). Practice Bulletin No. 115: Vaginal Birth After Previous Cesarean Delivery. *Obstetrics and Gynecology , 116* (2), 450-463.
www.acog.org/Resources_And_Publications/Practice_Bulletins/Committee_on_Practice_Bulletins_--_Obstetrics/Vaginal_Birth_After_Previous_Cesarean_Delivery.

11. After the 2010 NIH VBAC Conference, ACOG revised their practice bulletin on VBAC to make it very clear that even if a hospital bans VBAC, that policy cannot be used to force women to have a c-section or to deny women care.

American College of Obstetricians and Gynecologists. (2010). Practice Bulletin No. 115: Vaginal Birth After Previous Cesarean Delivery. *Obstetrics and Gynecology , 116* (2), 450-463.
www.acog.org/Resources_And_Publications/Practice_Bulletins/Committee_on_Practice_Bulletins_--_Obstetrics/Vaginal_Birth_After_Previous_Cesarean_Delivery.

12. ACOG says that women should be allowed to make decisions that are associated with "elevated levels of risk."

American College of Obstetricians and Gynecologists. (2010). Practice Bulletin No. 115: Vaginal Birth After Previous Cesarean Delivery. *Obstetrics and Gynecology , 116* (2), 450-463. www.acog.org/Resources_And_Publications/Practice_Bulletins/Committee_on_Practice_Bulletins_--_Obstetrics/Vaginal_Birth_After_Previous_Cesarean_Delivery.

RISKS

13. Risks of multiple c-sections include:

- Placenta accreta
- Cesarean hysterectomy
- Placenta previa (the placenta implants low on the uterus and can land between the baby and the cervical opening)
- Excessive bleeding
- Blood transfusions of 4 or more units
- Maternal ventilation (mom is intubated because having a hard time breathing on her own)
- ICU admission

…all of these complications increase at a statistically significant rate as women have multiple c-sections.

Silver, R.M., Landon, M.B., Rouse, D.J., & Leveno, K.J. (2006). Maternal Morbidity Associated with Multiple Repeat Cesarean Deliveries. *Obstetrics & Gynecology, 107*, 1226-32. http://www.ncbi.nlm.nih.gov/pubmed/16738145

14. In California, higher rates of placenta accreta, cesarean hysterectomies, and excessive bleeding are directly related to the 91% repeated c-section rate in that state.

Main, E. (2013). HQI Regional Quality Leader Network December Meeting. San Diego.

15. Risks of VBAC include:

- uterine rupture (.5%-1% after one prior c-section)
- failed tolac (women planning to have a VBAC goes into labor and for whatever reason, ends up having a c-section)

Landon, M. B., Hauth, J. C., & Leveno, K. J. (2004). Maternal and Perinatal Outcomes Associated with a Trial of Labor after Prior Cesarean Delivery. *The New England Journal of Medicine , 351*, 2581-2589. www.nejm.org/doi/full/10.1056/NEJMoa04040

16. If a woman with one previous low transverse c-section is induced or augmented, her risk of uterine rupture doubles. Uterine rupture rates:

0.4% (1 in 240) for women who are not induced or augmented
0.9% (1 in 111) for women who are augmented
1% (1 in 100) for women who are induced

Landon, M. B., Hauth, J. C., & Leveno, K. J. (2004). Maternal and Perinatal Outcomes Associated with a Trial of Labor after Prior Cesarean Delivery. *The New England Journal of Medicine , 351*, 2581-2589. www.nejm.org/doi/full/10.1056/NEJMoa04040

17. In 2010, the National Institutes of Health (NIH) predicted that if cesarean rates continue to increase, the annual incidence of placenta previa, placenta accreta, and maternal mortality would also rise substantially.

Guise, J.-M., Eden, K., Emeis, C., Denman, M., Marshall, N., Fu, R., . . . McDonagh, M. (2010). *Vaginal Birth After Cesarean: New Insights.* Rockville (MD): Agency for Healthcare Research and Quality (US). www.ncbi.nlm.nih.gov/books/NBK44571/

18.Placenta accreta is associated with up to a 7% maternal mortality rate and an over 70% cesarean hysterectomy rate.

The American College of Obstetricians and Gynecologists. (2012). Placenta Accreta. Committee Opinion #529.

www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Placenta-Accreta

Bateman, M.T., Mhyre, J.M., Callaghan, W.M., & Kuklina, E.V. (2012). Peripartum hysterectomy in the United States: nationwide 14 year experience. *American Journal of Obstetrics & Gynecology, 206*(63), e1-8. www.ncbi.nlm.nih.gov/pubmed/21982025

Shellhaas, C.S., Gilbert, S., Landon, M.B., Varner, M.W., Leveno, K.J., Hauth, J.C., Spong, C.Y., Caritis, S.N., Wapner, R.J., Sorokin, Y., Miodovnik, M., O'Sullivan, M.J., Sibai, B.M., Langer, O., & Gabbe, S. (2009). The frequency and complication rates of hysterectomy accompanying cesarean delivery. *Obstet Gynecol* **,** *114* (2, Part 1), 224-229. www.ncbi.nlm.nih.gov/pmc/articles/PMC2771379/

Silver, R.M., Landon, M.B., Rouse, D.J., & Leveno, K.J. (2006). Maternal Morbidity Associated with Multiple Repeat Cesarean Deliveries. *Obstetrics & Gynecology, 107*, 1226-32. www.ncbi.nlm.nih.gov/pubmed/16738145

19. Risk factors for placenta accreta include any uterine surgery that disrupts or scars the uterine lining including cesareans, D&Cs, and surgery to remove uterine fibroids. This risk increases as the number of procedures increases. It is not clear why some women develop placenta accreta and others do not.

Heller, D. S. (2013). Placenta accreta and percreta. *Surgical Pathology, 6*, 181-197.

20. The risk of placenta accreta after two c-sections (0.57% per Silver 2006) is similar to the risk of uterine rupture after one c-section (0.4% per Landon 2004).

Landon, M. B., Hauth, J. C., & Leveno, K. J. (2004). Maternal and Perinatal Outcomes Associated with a Trial of Labor after Prior Cesarean Delivery. *The New England Journal of Medicine , 351*, 2581-2589. www.nejm.org/doi/full/10.1056/NEJMoa040405

Silver, R. M., Landon, M. B., Rouse, D. J., & Leveno, K. J. (2006). Maternal Morbidity Associated with Multiple Repeat Cesarean Deliveries. *Obstetrics & Gynecology , 107*, 1226-32.

http://journals.lww.com/greenjournal/fulltext/2006/06000/maternal_morbidity_associated_with_multiple_repeat.4.aspx

21. Risk of uterine rupture pre-labor is extremely rare.

Zwart (2009) found that the pre-labor rupture rate among scarred moms was 0.0576%. In other words, 99.9424% of uterine ruptures that occur in women pregnant after a c-section occur during labor.

Zwart, J.J., Richters, J.M., Ory, F., de Vries, J., Bloemenkamp, K., & van Roosmalen, J. (2009). Uterine rupture in the Netherlands: a nationwide population-based cohort study. *BJOG: An International Journal of Obstetrics and Gynaecology, 116*(8), pp. 1069-1080. http://onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.2009.02136.x/full

22. Over 95% of uterine ruptures in women who have had a prior c-section occur along the prior c-section scar.

Zwart, J.J., Richters, J.M., Ory, F., de Vries, J., Bloemenkamp, K., & van Roosmalen, J. (2009). Uterine rupture in the Netherlands: a nationwide population-based cohort study. *BJOG: An International Journal of Obstetrics and Gynaecology, 116*(8), pp. 1069-1080. http://onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.2009.02136.x/full

23. It is very rare for a woman to have a uterine rupture without having had prior uterine surgery: 1 in 14,000 vs. 1 in 200 for women who have had prior uterine surgery.

Zwart, J.J., Richters, J.M., Ory, F., de Vries, J., Bloemenkamp, K., & van Roosmalen, J. (2009). Uterine rupture in the Netherlands: a nationwide population-based cohort study. *BJOG: An International Journal of Obstetrics and Gynaecology, 116*(8), pp. 1069-1080. http://onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.2009.02136.x/full

24. Uterine ruptures in women who have not had a prior c-section are more like a balloon popping, which tends to result in more damage to the uterus and is associated with higher rates of infant mortality.

Zwart, J.J., Richters, J.M., Ory, F., de Vries, J., Bloemenkamp, K., & van Roosmalen, J. (2009). Uterine rupture in the Netherlands: a nationwide population-based cohort study. *BJOG: An International Journal of Obstetrics and Gynaecology, 116*(8), pp. 1069-1080. http://onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.2009.02136.x/full

25. We have only limited information about a) VBACs after two previous c-sections, b) VBACs post due date, c) uterine rupture by birth interval (time from the c-section to the subsequent VBAC or time from the c-section to conception), and d) uterine rupture by the size of the baby. The studies we do have are limited by small sample sizes and samples of women who have also had induction or augmentation.

American College of Obstetricians and Gynecologists. (2010). Practice Bulletin No. 115: Vaginal Birth After Previous Cesarean Delivery. *Obstetrics and Gynecology , 116* (2), 450-463. www.acog.org/Resources_And_Publications/Practice_Bulletins/Committee_on_Practice_Bulletins_--_Obstetrics/Vaginal_Birth_After_Previous_Cesarean_Delivery.

26. The most common types of incision in the U.S. are low transverse incisions (low in the uterine segment and horizontal). This type of incision is associated with the lowest rate of uterine rupture.

"Classic cesarean delivery via vertical midline uterine incision is infrequently performed in the modern era and currently account for 0.5% of all births in the United States." http://reference.medscape.com/article/275854-overview#aw2aab6b5

Landon, M. B., Hauth, J. C., & Leveno, K. J. (2004). Maternal and Perinatal Outcomes Associated with a Trial of Labor after Prior Cesarean Delivery. *The New England Journal of Medicine , 351*, 2581-2589. www.nejm.org/doi/full/10.1056/NEJMoa04040

27. Other types of incisions (collectively called "special scars") include high vertical or classical scar, T scar, J scar. Many time an incision goes into the fundus (the upper part of the uterus that does all work during labor),it is believed that the rate of uterine rupture is higher However, studies are very limited because of small sample sizes so we do not have good strong evidence on how much higher those rupture rates actually are.

Landon, M.B., Hauth, J.C., & Leveno, K.J. (2004). Maternal and Perinatal Outcomes Associated with a Trial of Labor after Prior Cesarean Delivery. *The New England Journal of Medicine , 351*, 2581-2589. www.nejm.org/doi/full/10.1056/NEJMoa04040

Spong, C.Y., Landon, M.B., Gilbert, S., Rouse, D., Leveno, K., Varner, M., & Moawad, A. (2007). Risk of Uterine Rupture and Adverse Perinatal Outcome at Term After Cesarean Delivery. *Obstetrics & Gynecology, 110*(4), 801 - 807. http://journals.lww.com/greenjournal/Fulltext/2007/10000/Risk_of_Uterine_Rupture_and_Adverse_Perinatal.12.aspx

28. NIH says that there may be value in looking at the correlation of uterus thickness and uterine rupture, but the studies at this point are too small and not well controlled, so there is no conclusive evidence yet.

Guise, J.-M., Eden, K., Emeis, C., Denman, M., Marshall, N., Fu, R., . . . McDonagh, M. (2010). *Vaginal Birth After Cesarean: New Insights.* Rockville (MD): Agency for Healthcare Research and Quality (US). hwww.ncbi.nlm.nih.gov/books/NBK44571/

VBAC BANS

29. Nationwide, 43% of hospitals have a VBAC ban - either a written policy or de facto. A de facto ban could be a) when a hospital says that they support VBAC, but the OBs or anesthesiologists do not or b) the doctors say they support VBAC, but administration does not.

International Cesarean Awareness Network. (n.d.). *VBAC Policies in US Hospitals*. www.ican-online.org/vbac-ban-info

30. Of the hospitals that ban VBAC, 1/3 of them actually satisfy the strictest definition of "immediately available": 24/7 anesthesia.

Barger, M. K., Dunn, T. J., Bearman, S., DeLain, M., & Gates, E. (2013). A survey of access to trial of labor in California hospitals in 2012. *BMC Pregnancy Childbirth*. www.ncbi.nlm.nih.gov/pmc/articles/PMC3636061/pdf/1471-2393-13-83.pdf

31. As of 2013, only one hospital in California had reversed their VBAC ban since the 2010 NIH VBAC Conference.

Barger, M. K., Dunn, T. J., Bearman, S., DeLain, M., & Gates, E. (2013). A survey of access to trial of labor in California hospitals in 2012. *BMC Pregnancy Childbirth*. www.ncbi.nlm.nih.gov/pmc/articles/PMC3636061/pdf/1471-2393-13-83.pdf

32. The issue is really not about who is capable of offering VBAC, it's about who is *willing* to offer it.

Minkoff, H. (2010). *National Institutes of Health VBAC Conference, Day 2, #04: Public Comments. 11:16.* http://vimeo.com/10898005

LEGAL ISSUES

33. Everyone has the right to refuse surgery in the U.S.

Minkoff, H. (2010). *National Institutes of Health VBAC Conference, Day 2, #04: Public Comments. 11:16.* http://vimeo.com/10898005

34. **Over the last 20 years, there have been about twelve court ordered cesareans. While this is rare, the threat of a court order, CPS, or psychiatric evaluation is often enough to coerce a women into having a cesarean.**

Cantor, J. D. (2012, Jun 14). Court-Ordered Care — A Complication of Pregnancy to Avoid. *New England Journal of Medicine, 366*, 2237-2240.

www.nejm.org/doi/full/10.1056/NEJMp1203742?

Paltrow, L. M., & Flavin, J. (2013, April). Arrests of and forced interventions on pregnant women in the United States, 1973-2005: Implications for women's legal status and public health. *Journal of Health Politics, Policy and Law, 38*(2), 299-343. http://jhppl.dukejournals.org/content/early/2013/01/15/03616878-1966324.full.pdf+html

LIST OF ONLINE RESOURCES

American College of Obstetricians and Gynecologists (ACOG)
www.acog.org

A national organization that obstetricians and gynecologists can opt to join and become a member. They publish practice bulletins and summaries of best evidence and/or committee opinions on specific topics.

ACOG offers different levels of recommendations based on amount of evidence available:
A: highest quality/amount of evidence
C: lowest quality/amount of evidence - indicates consensus opinion from the writers of the bulletin

On College vs. Congress: "The American College of Obstetricians and Gynecologists (The College), a 501(c)(3) organization, is the nation's leading group of physicians providing health care for women. As a private, voluntary, nonprofit membership organization of approximately 56,000 members, The College strongly advocates for quality health care for women, maintains the highest standards of clinical practice and continuing education of its members, promotes patient education, and increases awareness among its members and the public of the changing issues facing women's health care. The American Congress of Obstetricians and Gynecologists (ACOG), a 501(c)(6) organization, is its companion organization."
www.acog.org/About_ACOG/News_Room/News_Releases/2012/Statement_on_Rape_and_Pregnancy

International Cesarean Awareness Network, Inc. (ICAN)
www.ican-online.org

A nonprofit organization whose mission is to improve maternal-child health by preventing unnecessary cesareans through education, providing support for cesarean recovery, and promoting VBAC.

Map of VBAC Bans
http://birthmonopoly.com/vbac-bans/

Contains a map of VBAC bans nationwide

National Advocates for Pregnant Women (NAPW)
www.advocatesforpregnantwomen.org

A nonprofit legal advocacy group that helps women navigate the hospital system. Established as a 501(c)(3) organization in 2001, works to secure human and civil rights, health and welfare of all women, focusing particularly on pregnant and parenting women, and those who are most vulnerable to state control and punishment - low income women, women of color, and drug-using women.

2010 National Institutes of Health (NIH) VBAC Conference
http://consensus.nih.gov/2010/vbac.htm

A 2 1/2 day conference that had the objective to raise awareness of the research on VBAC vs. repeat c-sections.

VBAC Facts Website
www.vbacfacts.com

- *Provides many resources to allow you to do your own homework on VBAC and make your own, informed choices.*
- *Includes the Birth Myth Series - stories based on what people have heard, along with information to support or refute the stories.*
- *Includes links to video presentations from the 2010 NIH VBAC Conference*
- *Jennifer Kamel offers workshops focusing on the history, politics, and statistics of VBAC vs. repeat c-section and is a Continuing Education Provider for the California Board of Registered Nursing.*