

Causes and factors contributing to UnneCesareans

A newly coined term, unneCesareans, concisely describes the method of delivery of 20%-25% of low-risk first births in most western countries. They are unnecessary from the point of view that there is no evidence of improved medical outcomes with the widespread use of CS for low risk, full term primiparas.(1) The causes for this common practice are delineated.

Provided free everywhere but New South Wales, Australia: In 2007, the Department of Health of New South Wales, Australia passed Policy Directive #2007-024 demanding that maternal request is not an indication for elective caesarean section. Compliance with the directive is mandatory and a condition for subsidy. Every other government in the world does not distinguish between unneCesareans and medically indicated surgical birth.

Private medical practices(2). The consummate example of this is in Brazil where the CS rate in a private hospital among primiparous women was 97.8% vs. 47% in public hospital. (3)

High socioeconomic level of the pregnant woman(4).

Highly urbanized setting(5)

Physician Convenience: Weekday, day shift: 66% of emergency cesareans took place between 8 am and 3 pm and not a single one between 5-6 am.(6) UnneCesareans are not performed on weekends or national holidays in order not to interfere with leisure time. (7)

Action Bias: Doctors and Judges exhibit an action-bias towards cesareans. Surgery is considered by the courts to be heroic and the ultimate effort regardless of the outcome, even death.(8)

Dystocia has no medical definition: The most recent ACOG Practice Bulletin on dystocia (9) specifies no time frame for dystocia, referring only to a slower than 'normal' or complete cessation of progress, allowing doctors to define it however they want. This undefined phenomenon" of "dystocia", is held responsible for approximately 50%(10)-69%(11) of all cesareans experienced by otherwise healthy nulliparous women. An example of a frequently applied but arbitrary definition of dystocia is giving women with an epidural in place an extra hour before defining them as having second stage dystocia.(12) Even so, the strongest risk indicator for dystocia was use of epidural analgesia.(13)

Elective Induction: Lowe (14) reported a 1.5 to 2.5 times greater risk of CS delivery in 9 controlled international studies using large samples of healthy first births at term with a singleton cephalic pregnancy with elective induction. The primary indication for CS was dystocia.

Lack of universally-available one-to-one midwifery care, homebirth caregivers, doulas and practitioners competent at external cephalic versions.

Risk-focused, policy driven, non-woman centered care: Women may have high adrenalin/alert status from wearing hospital gowns and not knowing who is going to walk in next and do what to them. They have 2 sensors the size of oranges on their bellies, with no proven effectivity aside from increasing the number of cesareans and ask questions that reflect their disconnection with physiological functions and their relinquished sense of intuition regarding bodily functions, such as, "Is it OK to move? Am I allowed to drink?"

Overeating high glycemic index foods combined with lack of exercise: About 10% of fetuses weigh over 4000 g.(15). Mulik (16) reported an overall CS rate of 16.4%. Full term, cephalic pregnancies not complicated by any medical or surgical disorders except 0.5% gestational diabetics with birth weights of 2500-3999 had a CS rate of 14.7%, over 4000 g. had a 30% CS rate and over 4500 g. had a 60% CS rate. Therefore, in this study a 9% rate of macrosomia was demonstrated to increase the overall CS rate from 14.7% to 16.4% or an addition of **1.7%** to the

CS rate. Birth weights of 2500-3000 can be achieved by avoiding high glycemic index foods combined with daily exercise. (17)

Staff loyalty to their jobs over accountability to patients: Most workers in the delivery room consider their work a job, and a job which they want to keep. To keep their jobs the majority of workers in the delivery room cover for each other. A worker who wants to keep their job will not complain against a staff member who causes or performs an unneCesarean. UnneCesareans may be caused by staff that choose to talk to each other outside the patient room rather than stay with the patient. A non-reassuring heart rate may not be responded to in a timely fashion. As a result of lack of timely intervention and lack of emotional support, an emergency unneCesarean may result.

Inaccurate monitor readings: Fetal monitor, in some cases, fails to show reactivity of the fetal heart beat. Lack of manual monitoring devices result in an unneCesarean. The staff will notice that the next woman put on the same monitor also has no variability, and realize that the machine is broken. However, the previous patient will NOT be informed that she had an unneCesarean, but rather the staff covers for each other's malpractice (18) About 1% of newborns stop breathing 5 minutes after a birth. If the worker is busy filling in the paper work, and no one fails to stimulate the newborn, it dies. This is another example where hospital workers cover for each other.

Dysfunction of Foley Catheter: In addition to dysfunctions of the monitor, thermometers, and blood pressure detectors which can cause unneCesareans, this review documents a case seen by the author in which the foley catheter was defective and not flowing but only leaking 1 cc per hour. CS was performed for arrest descent. During the surgery, a full bladder was noticed and the staff realized that the Foley catheter was not working. Due to the full bladder, the head could not descend. The woman was never informed of the reason for her unneCesarean. In another case, a nurse pre-prepared a bag of IV fluids with Pitocin and labeled it with a large red PITOCIN 10 U label and hung it for future use. An anesthesiologist put in an epidural, and the woman's blood pressure fell dramatically as commonly happens. The anesthesiologist connected the bag of fluids with the pitocin and let it run in, not noticing the label of PITOCIN 10 U. The woman's uterus burst and she had an emergency unneCesarean and hysterectomy.

High and rising malpractice insurance premiums: Multivariable analyses demonstrated that for each annual \$10,000 insurance premium increase, the primary cesarean delivery rate increased by 15.7 per 1,000 for nulliparous women. 4.7 per 1,000 for multiparous women.(19) A \$10,000 decrease in premiums for obstetrician-gynecologists would be associated decrease of **0.15%** in the rates of primary cesarean section and with an increase of 0.35% in the VBAC rate. Two types of tort reform-caps on noneconomic damages and pretrial screening panels were associated with lower rates of cesarean section and higher rates of VBAC.(20)

Breech/VBAC CS Protocols do not differentiate between small and large fetuses:

Vaginal Breech delivery of 2500 grams is safe. Breech 4000 g is risky. VBAC 2500 grams is associated with a risk of uterine rupture of 1 in 1000. Vbac over 4200 has a risk of uterine rupture of 1 in 50.(17) Current protocols do not take fetal weight estimations into consideration for the purposes of avoiding cesarean or repeat cesarean. Manual and ultrasound fetal weight estimations are considered reliable enough to justify cesarean, but are not used to justify preventing CS.

Epidurals: Randomized trials which do not show an effect of epidural anesthesia on cesarean section (CS) rate lack external validity.(21) The limited data available suggest epidurals and low-dose oxytocin used together increase the CS rate.(21)

Profit from rehospitalization- The rates of rehospitalization after a planned primary cesarean were 2.3 times more likely to require a rehospitalization in the first 30 days postpartum.(22) The average initial hospital cost of a planned primary cesarean was 76% higher than the average for planned vaginal births and length of stay was 77% longer (4.3 days to 2.4 days).(23)

Claims that maternal request CS is popular: Existing evidence for large numbers of women requesting cesarean sections in the absence of medical indications is weak.(24)

Summary

“Caesarean sections, unless strictly indicated, may be harmful to the health of mothers and their newborn babies. Two questions remain. Why are rates still on the increase? What can be done to reverse current trends?” (25). Considering the many causes of unneCesareans, a reverse in current trends is unlikely.

- 1.ACOG. Evaluation of cesarean delivery. Washington DC: ACOG, 2000.
2. Shorten B, Shorten A.Impact of private health insurance incentives on obstetric outcomes in NSW hospitals. Aust Health Rev. 2004;27(1):27-38.
3. Mandarino NR, Chein MB, Monteiro Júnior FC, Brito LM, Lamy ZC, Nina VJ, Mochel EG, de Figueiredo Neto JA. [Aspects related to choice of type of delivery: a comparative study of two maternity hospitals in São Luís, State of Maranhão, Brazil] Cad Saude Publica. 2009;25(7):1587-96.
- 4.Ghetti , C. , Chan , B. K. S. , & Guise , J. M . Physician response to patient-requested cesarean delivery . Birth 2004; 31 ,280 - 284.
5. Chen CS, Lin HC, Liu TC, Lin SY, Pfeiffer S. Urbanization and the likelihood of a cesarean section. Eur J Obstet Gynecol Reprod Biol. 2008;141(2):104-10.
6. Goldstick O, Weissman A, Drugan A. The circadian rhythm of "urgent" operative deliveries. Isr Med Assoc J. 2003;5(8):564-6.
7. Morita N, Matsushima N, Ogata N, Saeki K, Ishibashi M, Komukai H, Matsuda R, Kurumatani N.Nationwide description of live Japanese births by day of the week, hour and location. J Epidemiol. 2002;12(4):330-5.
8. Bar-Eli M. Azar OH. Ritov I. Keidar-Levin Y. Schein G. Action bias among elite soccer goalkeepers: The case of penalty kicks. Journal of Economic Psychology 2007: 28:5:606-12.
- 9.American College of Obstetrics and Gynecology Committee on Practice Bulletins-Obstetrics. ACOG Practice Bulletin Number 49, December 2003: Dystocia and augmentation of labor. Obstet Gynecol. 2003;102(6):1445-54.
10. Shields SG, Ratcliffe SD, Fontaine P, Leeman L. Dystocia in nulliparous women. Am Fam Physician. 2007; 75(11):1671-8.
11. Gifford DS, Morton SC, Fiske M, Keesey J, Keeler E, Kahn KL. Lack of progress in labor as a reason for cesarean.Obstet Gynecol. 2000;95(4):589-95.

12. Kjaergaard H, Olsen J, Ottesen B, Dykes AK. Incidence and outcomes of dystocia in the active phase of labor in term nulliparous women with spontaneous labor onset. *Acta Obstet Gynecol Scand.* 2009;88(4):402-7.
13. Kjaergaard H, Olsen J, Ottesen B, Nyberg P, Dykes AK. Obstetric risk indicators for labour dystocia in nulliparous women: a multi-centre cohort study. *BMC Pregnancy Childbirth.* 2008; 6;8:45.
14. Lowe NK. A review of factors associated with dystocia and cesarean section in nulliparous women. *J Midwifery Womens Health.* 2007;52(3):216-28.
15. Zamorski MA, Biggs WS. Management of suspected fetal macrosomia. *Am Fam Physician* 2001;63(2):302 –6.
16. Mulik V, Usha Kiran TS, Bethal J, Bhal PS. The outcome of macrosomic fetuses in a low risk primigravid population. *Int J Gynaecol Obstet.* 2003 Jan;80(1):15-22.
17. Cohain JS. Can Low Glycemic Diet Increase VBAC Success? *MIDIRS Midwifery Digest* 2009;19(1)71-75. <http://www.gentlebirth.org/archives/cohainVBAC.html>
18. Personal experience. Hadassah Ein Kerem Labor and Delivery Ward. March, 2009
19. Murthy K, Grobman WA, Lee TA, Holl JL. Association between rising professional liability insurance premiums and primary cesarean delivery rates. *Obstet Gynecol.* 2007;110(6):1264-9.
20. Yang YT, Mello MM, Subramanian SV, Studdert DM. Relationship between malpractice litigation pressure and rates of cesarean section and vaginal birth after cesarean section. *Med Care* 2009;47(2):234-42.
21. Kotaska AJ, Klein MC, Liston RM. Epidural analgesia associated with low-dose oxytocin augmentation increases cesarean births: a critical look at the external validity of randomized trials. *Am J Obstet Gynecol.* 2006;194(3):809-14.
22. Ophir E, Strulov A, Solt I, Michlin R, Buryanov I, Bornstein J. Delivery mode and maternal rehospitalization. *Arch Gynecol Obstet.* 2008 May;277(5):401-4.
23. Declercq E, Barger M, Cabral HJ, Evans SR, Kotelchuck M, Simon C, Weiss J, Heffner LJ. Maternal outcomes associated with planned primary cesarean births compared with planned vaginal births. *Obstet Gynecol.* 2007 Mar;109(3):669-77.
24. Weaver JJ, Statham H, Richards M. Are there "unnecessary" cesarean sections? Perceptions of women and obstetricians about cesarean sections for nonclinical indications. *Birth.* 2007;34(1):32-41.
25. Victora CG, Barros FC. Beware: unnecessary caesarean sections may be hazardous. *Lancet.* 2006;367:1796-7.