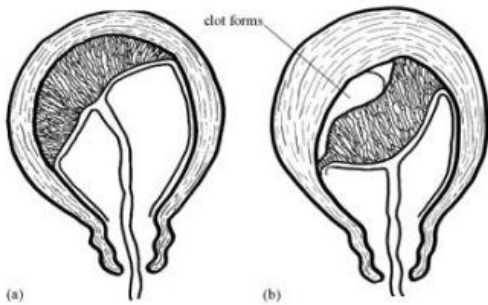


After your baby is born you will enter what is called the third stage of labour, at which time your placenta will be born. The placenta is a vascular organ that is about the size of a one-pan omelet. Your baby's umbilical cord is attached to the placenta at one end and to the baby's belly button at the other end. It is through this cord that the baby received all the oxygen and nutrients he or she needed for the past nine months.



After you give birth to your baby your placenta is no longer needed and your body will go through a series of normal events to facilitate its delivery. Your uterus, which has been about the size of a pumpkin, shrinks rapidly once your baby is born. As this happens, the placenta caves in on itself and begins to shear off the uterine wall where it has been attached for nine months. The uterus will then contract down to about the size of a grapefruit and the uterus muscle fibers clamp off all the blood vessels and the uterus walls will clamp off against each other to stop the vessels from bleeding.

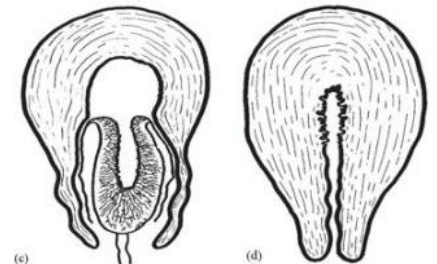


This is important as the placenta site is used to pumping 700 ml of blood a minute. It will be normal for you to lose some blood

as your body undergoes these transitions, and your body is usually well adapted to adjust to these change. However, any blood loss over 500 mls is considered a hemorrhage, and blood loss of 1000 mls is enough that it could make you feel dizzy or anemic after the birth.

In order for the uterus to be able to stop the bleeding efficiently, two things must happen.

- 1) The uterus must contract strongly. This depends on sufficient levels of the hormone oxytocin.
- 2) The uterus must be empty. A loose placenta, blood clots, or even a full bladder can keep the uterus from clamping down efficiently.



Because hemorrhage, or excessive bleeding, is one of the biggest causes of morbidity and mortality at childbirth around the world, there have been a number of interventions proposed to ensure this process of placenta delivery and uterine contraction occurs efficiently. The sum of these interventions is called "Active Management of the Third Stage of Labour." This way of managing the birth of the placenta is in contrast to physiologic third stage when the body is supported in its natural production of oxytocin, and the placenta is birthed in its own time by the effort of the new mother. The purpose of this document is to summarize these two different ways of approaching the third stage of labour to help you choose which method is right for you and the birth of your placenta.

The Association of Ontario Midwives Clinical Practice Guideline makes the following statement:

In 2003, the International Confederation of Midwives (ICM) and the International Federation of Gynecologists and Obstetricians (FIGO) published a joint statement on the prevention of PPH... The statement recommends that active management includes delivery of

oxytocin...within one minute of the birth of the baby, clamping of the cord once it stops pulsing, CCT [which stands for continuous cord traction or a gentle and steady pulling on the umbilical cord], and massage of the fundus [the top of the uterus] until it is well contracted.

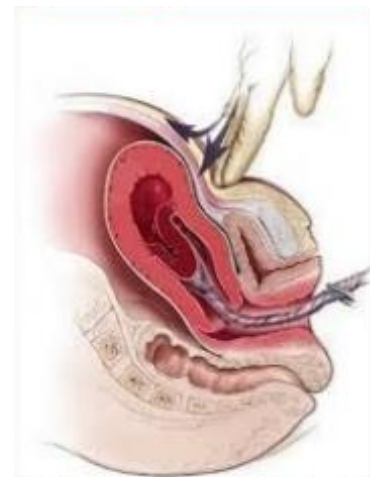


The Association of Ontario Midwives recommends that the Active Management of the Third Stage of Labour should be offered to all pregnant women and it is strongly recommended to women at risk for hemorrhage. At Maternity Care Midwives, we follow this recommendation and most of our clients will choose to have the steps of active management at their birth.

You can talk to your midwife about what individual factors might make it more likely for you to bleed after birth. These factors include very quick or very long birth where the uterus is tired, or birth where the uterus is artificially stimulated such as with induction or augmentation. Your individual risk will also take into account your overall health including your medical and surgical history. The Active Management of the Third Stage of Labour is recommended for every woman, but for those with specific risk factors for hemorrhage it is especially encouraged.

A 2011 cochrane review of the evidence behind Active Management of the Third Stage of Labour gives some information about the pros and cons of “Active Management.”

- The women who have had the steps of “Active Management” are about 1/3 less likely to bleed more than 500 ml *in women at low risk of bleeding*.
- The difference in blood loss between women who have active management and those who have physiologic management is an *average of 79 ml*.
- Women who have active management are more likely to need pain medication to manage afterpains, have the side effect of high blood pressure or nausea, and are more likely to return to the hospital after discharge because of bleeding. These side effects, however, are largely because of stronger drugs that were used in some of the studies, and are not routinely used in Canada for the Active Management of the Third Stage of Labour. The drug most commonly used in Canada is oxytocin which has minimal—if any—side effects.



The Cochrane review makes this statement: “In a well-nourished woman, some consider that, in general, there is little impact from a blood loss of 500 ml, being equivalent to a routine blood donation, but in women in low income countries who may be poorly nourished and anemic, this loss can cause considerable morbidity and mortality”

Of course, there are always some shortcomings on assessing research on a large scale. Firstly, each of the studies used a different protocol for which kind of drug was used to help contract the uterus for “Active Management.” It is suspected that many of the side effects could be avoided if oxytocin, the

drug of choice, was given. At the time of the studies, a number of other uterine-contracting medications were used, which may have been largely responsible for the increase in side effects.

Another shortcoming to the evaluation of these studies is that it is not clear what part of active management of the third stage is most important. More recent research is suggesting that administration of oxytocin is the most important part of “Active Management,” and that cord traction is a secondary and optional part of the intervention.

A third shortcoming is that most of the studies are done in a hospital setting where doctors and midwives managing the births may not have been comfortable with awaiting the physiological delivery of placenta, and intervened in ways that caused more bleeding. A 2012 study based out of New Zealand focused on management of the third stage of labour in low-risk women with midwives who had experience in the physiologic management of the third stage of labour. This study, contrary to all the others, suggested that Active Management actually increased the rates of hemorrhage compared to those who had physiologic management.

For those who do not have risk factors for bleeding, physiologic management of labour is an acceptable choice. With physiologic management, your midwife will watch for bleeding, and await the delivery of the placenta, giving medication only if she notices that you start bleeding excessively. You may be asked to push, or to change positions to help deliver your placenta. An environment will be facilitated to maximize your own natural release of oxytocin. Oxytocin is the hormone of love, and is released best when you are relaxed and supported. Its release is impeded if you are experiencing fear.



It is also theorized that natural Oxytocin release may be less if a woman has had pain medications or epidural in labour, or when there are distractions, including cell phone calls or bright lights in the room. Oxytocin is released at its highest levels when you are surrounded by people you love, when gaze into your baby’s eyes, and when your baby suckles at the breast.

In summary, Active Management of the Third Stage of Labour is offered to all women in Ontario, and recommended to those who have risk factors for bleeding because it reduces the rate of hemorrhage. Physiologic management may be an alternative approach for some women.

Please speak to your midwife at your next prenatal visit to discuss which choice is right for you.

References:

Artymuk, N., Surina, M., & Marochko, T. (2014). Active management of the third stage of labor with and without controlled cord traction. *International Journal of Gynaecology and Obstetrics: The Official Organ of the International Federation of Gynaecology and Obstetrics*, 124(1), 84-85.

doi:10.1016/j.ijgo.2013.07.028

Association of Ontario Midwives. *AOM Clinical Practice Guidelines*. ; 2006.

Begley CM, Gyte GML, Devane D, McGuire W, Weeks A. Active versus expectant management for women in the third stage of labour. *The Cochrane database of systematic reviews*.

2011:CD007412.

Clinical Practice Obstetrics Committee. Active management of the third stage of labour: prevention and treatment of postpartum hemorrhage: No. 235 October 2009 (Replaces No. 88, April 2000). *International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics*. 2010;108:258.

Davis D, Baddock S, Pairman S, et al. Risk of Severe Postpartum Hemorrhage in Low-Risk Childbearing Women in New Zealand: Exploring the Effect of Place of Birth and Comparing Third Stage Management of Labor. *Birth*. 2012;39:98-105.

Soltani H. Global implications of evidence 'biased' practice: management of the third stage of labour. *Midwifery*. 2008;24:138-142.

Wang Y, Zhao S. *Vascular Biology of the Placenta*. San Rafael (CA): Morgan & Claypool Life Sciences; 2010. Chapter 2, Placental Blood Circulation. Available from:

<http://www.ncbi.nlm.nih.gov/books/NBK53254/>

Image source:.

Source: <http://sciisfun.blogspot.ca/2011/03/preparing-placenta-into-powdered-form.html> Science is fun blog.

Source: <http://www.open.edu/openlearnworks/mod/oucontent/view.php?id=274&printable=1>
WHO, 2008, *Midwifery Education Manual: Managing Postpartum Haemorrhage*, Figures 1.5 to 1.7, pages 22-23

Source: <http://www.birthing.com.au/labour-3rd-stage> From bellies to babies and beyond web site.

Source: <http://www.wisegeekhealth.com/what-are-intravenous-fluids.htm> . Wise Geek; What are Intravenous Fluids.

Source: <http://www.aafp.org/afp/2007/0315/p875> .html Redrawn with permission from Anderson J, Etches D, Smith D. Postpartum hemorrhage. In: Baxley E. *Advanced Life Support in Obstetrics* course syllabus. 4th ed. Leawood, Kan.: American Academy of Family Physicians, 2001.