

SUPPORTING WOMEN'S INSTINCTIVE PUSHING BEHAVIOR DURING BIRTH



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Supporting Women's Instinctive Pushing Behaviour During Birth

Posted on September 9, 2015 by midwifethinking

This article was published in The Practising Midwife journal in June 2015 along with 'practice challenge' questions for midwives (not included here).

Introduction

Clinical guidelines recommend that women should be guided by their own pushing urges during birth (National Institute for Health and Care Excellence (NICE) 2014). However, directing women's pushing behaviour has become a cultural norm within maternity care. Women are still told when to push, when not to push and how to push. In order to promote and support physiological birth we need to reconsider the assumptions underpinning this practice. In addition, we need to reflect on how this practice influences women's experience of birth. This article discusses supporting instinctive pushing behaviour during uncomplicated, physiological birth.

The current discourse around pushing and cervical dilatation is underpinned by a mechanistic understanding of the birth process: that the cervix opens first, then the baby is pushed through the vagina. However, this does not reflect the multidimensional and individual nature of birth physiology. Descent, rotation and cervical dilatation happen at varying rates, and are not necessarily related.

The urge to push is initiated by the position of the baby's head within the pelvis (Roberts et al 1987). Therefore, the cervix can be fully dilated without the baby descending deep enough to initiate an urge to push. Alternatively, spontaneous pushing can begin before the cervix is fully dilated. Directing a woman to push or not to push fails to support the individual physiology of her body and birth process. In addition, it contradicts the notion that women are the experts in their own births.

Directing Women to Push

Once full dilatation of the cervix is identified or suspected, it is common practice to direct women's pushing behaviour in an attempt to aid descent of the baby. Pushing directions usually involve instructions to use Valsalva pushing, or a variation of this method which includes: taking a deep breath as a contraction begins; holding the breath by closing the glottis; bearing down forcefully for eight to ten seconds (into the bottom); quickly releasing the breath; taking another deep breath and repeating this sequence until the contraction has ended (Yildirim and Beji 2008). Directed pushing was introduced in an attempt to shorten the duration of the 'second stage of labour' in the belief that this would improve outcomes for women and babies (Bosomworth and Bettany-Saltikov 2006). This type of pushing has been found to have a number of detrimental consequences for women including alterations to circulation (Tieks et al 1995), and increased perineal trauma and long-term effects on bladder function and pelvic floor health (Bosomworth and Bettany-Saltikov 2006; Kopas 2014).

Valsalva pushing may also reduce oxygen circulating via the placenta to the baby (Aldrich et al 1995). Current research reviews do not identify a significant impact of directed pushing on fetal wellbeing, but further research is needed (Kopas 2014; Prins et al 2011).

In addition, Valsalva pushing does not reflect how women push instinctively (Kopas 2014). Instinctive pushing does not commence at the start of contractions, and women do not take a deep breath before pushing: women alter their pushing behaviours, and use a mixture of closed glottis and open glottis pushing. The number of pushes per contraction also varies, with women not pushing at all during some contractions. Women also instinctively alter pushes according to their contraction pattern. For example, if contractions are infrequent women tend to use more pushes per contraction, and if contractions are frequent they push less often. This individual and instinctive pattern of pushing helps to oxygenate the baby more effectively than Valsalva pushing.

Directing women not to push

Some women will instinctively push before their cervix is fully dilated. This is often treated as a complication, and a common approach is to encourage the woman to stop pushing due to fear that cervical damage will occur. However, there is no evidence to support this concern. Two studies examined pushing before full dilatation and found that between 20-40 per cent of women experienced an 'early urge to push' (Borrelli et al 2013; Downe et al 2008). Borrelli et al (2013) found that the sooner the midwife performed a vaginal examination in response to a woman's urge to push, the more likely they were to find an undilated cervix. They also found that 'early pushing' was much more common for primiparous women, and occurred in 41 per cent of women with babies in an occipito posterior position. Both studies conclude that an 'early urge to push' is a normal variation and is not associated with complications. Perhaps there is a physiological advantage for 'early' pushing in some circumstances? For example, additional downward pressure may assist the baby to rotate into an anterior position, or assist with cervical dilatation.

The impact of telling a woman not to push when her body is pushing also needs to be considered. Once the baby is applying pressure to the nerves in the pelvis that initiate pushing, the woman is unable to control the urge. Attempting not to push at this point is like trying not to blink or breathe. In addition, telling a woman not to push when her body is instinctively pushing suggests that her body is wrong, and that she needs to resist her urges. After resisting her body's urges, she may find it difficult to switch into trusting and following her body once given the 'go ahead' (Bergstrom et al 1997). Encouraging a woman not to push when she is instinctively pushing can be distressing and disempowering for her.

Another situation in which women are encouraged not to push is during crowning. The rationale is to minimise the chance of perineal trauma by slowing down the birth of the baby's head. A slow birth of the head reduces the chance of tearing as it allows the perineal tissues to gently stretch over time (Aasheim et al 2012). A number of techniques have emerged aimed at slowing down the birth of the baby's head, including instructions and hands-on approaches. However, these approaches fail to acknowledge instinctive birthing behaviour. There is one study examining what women do during birth when following their instincts (Aderhold and Roberts 1991). This very small study of four women birthing without instructions found that they altered their own breathing and stopped pushing as the baby's head crowned. This is consistent with my own observations of undisturbed birth. The intense sensations experienced during crowning usually result in the woman 'holding back' while the uterus continues to push the baby out slowly and gently. In addition, women will often hold their baby's head and/or their vulva during crowning. Some women will bring their legs closer together, not only slowing the birth but also providing more 'give' in the perineal tissues. Telling a woman to 'stop pushing', to 'pant' or to 'give little pushes' distracts her at a crucial moment and suggests that you are the expert in her birth. Instructing her to open her legs to 'give the baby room' contradicts her instinct to protect her own perineum by closing them.

Conclusion and suggestions for practice

Evidence supports the notion that women instinctively push in the most effective and safe way for themselves and their babies during birth. A birthing woman is the expert regarding when and how she pushes. Providing directions implies she needs our guidance and that we are the experts. Facilitating women's instinctive birthing behaviours rather than directing them is evidence based and reinforces women's innate ability to birth.

Suggestions for practice:

- Include information about the physiology of birth in antenatal education/preparation. Reinforce the message that women have an innate ability to birth without direction.
- Provide an environment that facilitates physiological birth and instinctive behaviour – low lighting, minimal disturbance, comfortable furniture that supports mobility and movement (floor mats, beanbags, birth pool, shower).
- Avoid asking the woman if she needs to push, or feels 'pushy' as this may suggest that she should and could interfere with her inward focus and instinctive behaviour.
- If the woman tells you she feels the urge to push, reassure her that this is good, but don't encourage her to push. There will come a point when she is spontaneously pushing rather than feeling an urge to.
- Avoid vaginal examinations to 'diagnose' full dilatation. If you are not going to provide instructions about pushing based on cervical dilatation, there is no benefit in knowing this information.
- Do not disturb the woman's instinctive pattern of pushing and breathing. Avoid directions and, if you must speak, gently reinforce her ability to birth.
- Avoid directions or distractions as the baby's head is emerging to facilitate the woman's instinctive perineal protecting behaviours (such as gasping, screaming, closing her legs, holding her baby and perineum).

Related posts: perineal protectors; pushing: leave it to the experts; the anterior cervical lip: how to ruin a perfectly good birth.

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Perineal Protectors?

Posted on August 7, 2010 by midwifethinking

Artwork by Dana Leggett: <http://bit.ly/birthart>

Edited and updated: January 2016

Perineal tearing and/or grazing is common during birth. Two thirds of women will sustain damage to their perineum during birth (AIHW 2012). You can find out more about types/grading of perineal trauma here. This post will discuss ‘protecting the perineum’ and is based on a literature review. You can find the full literature review and reference list in my thesis.

An intact perineum is a badge of honour amongst midwives (the woman’s not their own!). When summarising a birth, midwives often end with ‘and an intact perineum’ to which the reply is usually ‘well done’.

However claiming of responsibility for perineal outcome also works in reverse. If a woman sustains an extensive tear the midwife is blamed and her practice questioned by colleagues and herself. So, is there really anything anyone can do to avoid perineal damage during birth?

According to research most of the risk factors for perineal tearing are out of the control of the midwife, and to a large extent the mother:

- A big baby
- High weight gain in pregnancy
- Higher socioeconomic circumstances
- Older and younger maternal age
- Ethnicity (Caucasian and Asian)
- First vaginal birth

(Albers et al. 2006; Dahlen et al. 2015; Dahlen et al. 2007; Goldberg et al. 2003; Groutz et al. 2011; Helain et al. 2011; Lydon-Rochelle et al. 1995; Mayerhofer et al. 2002; Murphy & Feinland 1998; Nodine & Roberts 1987; Shorten et al. 2002; Soong & Barnes 2005)

The controllable factors that influence perineal damage are:

Preparation

For first time mothers perineal stretching massage during pregnancy can reduce the chance of tearing (Albers et al. 2005; Beckmann & Garrett 2007). Carolyn Hastie has designed an excellent leaflet explaining exactly how to do this. Perineal stretching massage can increase a woman’s confidence in her body’s ability to stretch and open for her baby. On the other hand, plenty of women don’t prepare in this way and whether you have confidence in your body or not, your perineum will stretch. It is also important for women to know that it is normal for the perineum to tear, and that if it does they have not ‘failed’.

There is a rather scary device called an Epi-No designed to use during pregnancy to stretch the perineum. The limited research regarding the effectiveness and safety of this device is inconclusive (Kovacs, Heath & Campbell 2004; Shek et al. 2011). It most likely reduces the chance of tearing in the same way as perineal stretching massage. Personally I worry about potential long term effects of repeatedly stretching the perineum to the size of a baby’s head. Although a woman may give birth a number of times during her life, she will usually have more than a day between each baby’s head stretching her vagina. It is also a reflection of our technocratic culture that a ‘device’ is considered to be necessary in order to prepare for childbirth.

Positions

Lateral and hands-knees positions reduce the chance of tearing, and supine, squatting or lithotomy positions increase the chance of tearing (Albers et al. 1996; Hastings-Tolsma et al. 2007; Mayerhofer et al. 2002; Murphy & Feinland 1998; Shorten, Donsante & Shorten 2002). I have noticed that when women are left to birth instinctively they will often move from a squatting position – if they got into one – into a hands-knees position just before the head crowns. In forward leaning positions any tearing that does occur will usually be labial rather than vaginal. Labial tears sting like mad but heal well.

Warm Water

A warm flannel held against the perineum during crowning can reduce the incidence of major tearing and reduce postnatal pain and urinary incontinence (Dahlen et al. 2007; Hastings-Tolsma et al. 2007). A recent Cochrane Review also supported the use of warm compresses to decrease the occurrence of perineal trauma. However, for some women this is intrusive and irritating so make sure she is happy to have this intervention before you do it. Waterbirth is fabulous for avoiding tears – and makes it difficult for anyone apart from the birthing woman to touch the perineum or baby during birth.

Perineal Massaging During Birth

Massaging the perineum as the baby is trying to be born concerns me for a number of reasons. It makes me really uncomfortable to watch lots of ‘activity’ being done to a woman’s body while she is trying to birth. I have seen some very brutal versions of ‘perineal massage’ done to women. However, the Cochrane Review above suggests that this type of massaging can reduce the chance of significant tears (3rd and 4th degree) – although this does not make it into their conclusion. These types of tearing are rare (around 1%) – so the intervention needs to be weighed up with the risk. And consent needs to be gained from the mother beforehand.

Devices during birth

A company is currently trialing a device aimed at protecting perineums during birth. I will leave Katy Bowman to unpick this one!

Slow Birth of the Baby’s Head

A slow birth of the baby’s head reduces the chance of tearing. It allows the tissues to gently stretch over time as the baby moves forward with each contraction and retracts afterwards – 2 steps forward and 1 step back. A study by Albers et al. (2006) concluded that birthing the baby’s head between contractions slows the birth down and ‘requires a joint effort by the mother and her clinician’. Yet another example of how misguided research can be, and a reflection of how inherent our mistrust of women’s bodies is. I can only find one study that has bothered to look at what women do when we leave them alone. This extremely small study of 4 women birthing without instructions (imagine that!) found that they altered their own breathing and stopped pushing as the baby’s head crowned (Aderhold & Robert’s 1991). It’s a shame research into physiological birth is so limited. Instead I will have to rely on experiential knowledge...

Instinctive maternal behaviour vs instruction

Coached pushing increases the chance of perineal tearing, and this may be because it interferes with the instinctive response during crowning. The intense sensations experienced during crowning usually result in the woman ‘holding back’ while the uterus continues to push the baby out slowly and gently. Often women will hold their baby’s head and/or their vulva. I have witnessed one mother attempt to push her baby back

in (you know who you are x) – it was unsuccessful but gave us a giggle afterwards. Telling a woman to stop pushing, pant or ‘give little pushes’ distracts her at a crucial moment and suggests that you are the expert in her birth, which you are not. She is the one with a baby’s head in her vagina – leave it to her.

Some women will close their legs during crowing. I have seen midwives push women’s legs back open or say ‘keep your legs open’. Closing the legs, or bringing them in from a wide-open position protects the perineum. The two positions that involve the least chance of tearing (left lateral and hands/knees) do not involve stretched out legs and therefore perineums. Try it yourself... open your legs wide and towards your chest and feel what happens to your perineum (go on I dare you). Now close your legs a little and bring them down away from your chest – feel how much more ‘give’ there is in your perineum when it is not stretched out. It can now respond to the stretch required by the baby’s head without also being stretched out sideways. As for whether closing your legs will stop a baby from coming out... it may slow it down, but that baby is coming out. I have seen a woman birth on her side with her legs crossed – her baby came out from behind.

‘Hands on’ techniques

Hands on techniques aimed at slowing the birth of the baby and supporting the perineal tissues are routinely used by many birth attendants. However, recent systematic literature review (Petrocnik & Marshall 2015) concluded that: *“The hands-poised [off] technique appeared to cause less perineal trauma and reduced rates of episiotomy. The hands-on technique resulted in increased perineal pain after birth and higher rates of postpartum haemorrhage.”*

No research has compared instinctive physiological birth (no epidurals, induction etc.) with a ‘hands on’ approach. In addition, no research has explored women’s experiences of a ‘hands on’ approach. And, I am yet to hear a midwife or obstetrician ask for permission before placing their hands on the woman and baby. Ideally this should be discussed with the woman before labour and she should choose the approach she would like. For some individual women a ‘hands on’ approach may be appropriate. For example, some women with previous tearing want the psychological comfort of a ‘hands on’ approach.

Episiotomy

An episiotomy does not prevent a tear from occurring, instead it increases the chance of a third or fourth degree tear (involving the anal sphincter). A Cochrane Review has summarized the research in this area. Even in obstetric guidelines an episiotomy is not recommended as a way to protect the perineum during birth. Although an episiotomy is easier to suture, a natural tear is less painful and heals quicker. The only excuse for cutting an episiotomy is for an instrumental birth (and not in all cases) or for a baby who needs to be born quickly.

Suturing

Suturing is the most common method of perineal repair. Whether to suture or not should be the woman’s decision. In relation to 2nd degree tears (the most common) the need to suture is debatable if the tear aligns well and is not bleeding. A recent Cochrane review concluded:

“...at present there is insufficient evidence to suggest that one method is superior to the other with regard to healing and recovery in the early or late postnatal periods. Until further evidence becomes available, clinicians’ decisions whether to suture or not can be based on their clinical judgement and the woman’s preference after informing them about the lack of long-term outcomes and possible chance of slower wound healing process, but possible better overall feeling of well being if left un-sutured.” (Elharmeel et al. 2011)

In my own experience as a midwife I have found that un-sutured perineums heal very quickly and with far less pain than sutured perineums. Now-a-days my suturing skills are mostly utilized in teaching suturing.

In summary

There is very little midwives can do to protect women’s perineums so we need to stop taking the credit and the blame for perineal outcome. Instead we need to encourage women to trust that their body has an innate ability to birth their baby; that perineal tearing is a normal part of birth; and that the body will heal itself.

You can download a poster (literature review) of common midwifery practices during birth [here](#) and listen to me discuss protecting the perineum on the Birthful podcast.

Pushing: leave it to the experts

Posted on July 30, 2010 by midwifethinking

Edited and updated: April 2014

A birthing woman is the expert regarding when and how she pushes. Providing directions implies she needs our guidance and we are the experts. Of course each woman and birth situation is different and in some circumstances guidance may be helpful for a woman. This post will examine the implications of telling women when to push, how to push and not to push during birth.

This post is based on part of a literature review I carried out for my PhD. You can find more information and the reference list in my Phd thesis (p.19 to 24) or on a research poster you can download [here](#).

Telling women to push

There is overwhelming evidence that directed pushing results in increased morbidity for both mother and baby, and amongst other things is associated with: Mother – altering body fluid pH resulting in inefficient uterine contractions; maternal fatigue; and metabolic acidosis. Baby – interferes with the gradual descent and rotation and increases risk of hypoxia.

In addition directed pushing does not reduce the duration of the ‘second stage’. However it does result in the common scenario of: Woman is directed to push = baby becomes hypoxic and fetal heart rate abnormalities are heard... woman is shouted at to push harder to get her stressed baby out quickly... woman pushes harder... baby becomes more hypoxic and stressed... obstetrician is called in to rescue the baby and pull it out.

Telling women not to push

The cervical lip

The most common reason for telling a woman not to push is that her cervix is not fully dilated. Often when a baby is in an occipito posterior position the woman will feel the urge to push before the cervix is completely open. She is then told not to push because the lip will swell up (and/or tear) and prevent the baby from descending. Not pushing is an almost impossible task and many women in this situation opt for, or are encouraged to have an epidural so they can stop pushing. The baby is then less likely to rotate into an anterior position because the pelvic floor tone is reduced and the woman is unable to move.

There is no evidence to support his notion of a swelling cervix and I am yet to encounter the situation as a result of ‘premature pushing’. In some cultures it is tradition for the woman to push with each and every contraction from the beginning of labour. Surely these cultures would have died out if the outcome had been swollen/torn cervixes and stuck babies. Studies (Borrelli, Locatelli & Nespoli 2013; Downe et al. 2008) have found that the incidence of ‘early pushing urge’ EPU (as it is referred to in the literature) is between 20% to 40% and is not associated with complications.

When we tell a woman not to push the message is ‘your body is not working correctly and is sending you the wrong messages – you need to fight against it’. Fighting her body until she is ‘allowed’ to push may result in difficulty switching into trusting and following her body once given the ‘go ahead’ (Bergstrom 1997). For more information about pushing and cervical lips see [this post](#).

Breathe don't push

I need to breathe before I write this next bit as I am sure it will offend many – some of them my friends. So please feel free to comment and share your alternative views. Here goes... there seems to be a growing trend of telling women to resist their instinctive urge to push. The idea is to 'breathe' the baby down gently, and it does sound lovely. However, I have spoken to a number of women whose birth stories conveyed a sense of failure because they were unable to achieve this gentle 'birth breathing'. I have also seen women attempting this during birth – struggling to breath upwards lightly to avoid the guttural downward pull of their body.

Hypnobirthing – the Mongan method seems to be one of the key advocates of this no-push technique and I recently read the book in an attempt to understand the approach. Overall the book has many positive messages for women about their innate ability to birth. However, I have concerns regarding some of the concepts (which I will blog about in the future) in particular 'birth breathing'. I agree that staff directed pushing is not good (see above) but I disagree with the following quote: *"Often women speak of an overwhelming urge to push taking over. If this is felt it is also because of conditioning... our animal sisters elect to gently expel their babies"* (Mongan 2005, p.129)

Pushing is physiological and instinctive, and a feature of all mammalian births. To tell a woman that if she pushes she has given in to external programming and her baby will not enjoy a gentle birth is disempowering – especially for those who fail to override their 'conditioning'. A powerful, primal, loud and 'out of control' birth is just as amazing and valid as a gentle, quiet 'in control' birth.

Suggestions

Antenatally

- Find out what the woman's expectations are about this part of labour.
- Reinforce her belief in her own innate ability to birth and explain that this is the reason you will not be telling her how and when to push. This is important as some women will interpret a lack of instructions as a lack of support if they are expecting to be told what to do (Anderson 2010; Parnell et al. 1993).
- Encourage first time mothers to talk to other women and read birth stories written by birthing women. This will give her some idea about what it may feel like, and how different it is for each woman.
- Show her ways to connect with her body and relax her pelvic tissues so that she can use this in labour if needed. Jenny Blyth and Fiona Hallinen run fantastic workshops about this.
- If the woman is planning a hospital birth she will need to be prepared for hospital practices including directed pushing – a Doula and a birth plan can help.

The Maternity Coalition have a good info sheet aimed at parents.

During birth

- Avoid interfering with the physiological process ie. only do or say something if it is really necessary.
- If the woman tells you she feels the urge to push, reassure her that this is good. Don't tell her to push. There will come a point when she is pushing rather than feeling an urge to. Gloria Lemay has recorded an audio 'pushing for first time mothers' explaining why this is so important, especially for first time mothers.
- If she is extremely tense and the baby is not descending encourage her to use the techniques she learned antenatally to relax her pelvic tissues and open.

In essence – telling women when to push, how to push or not to push contradicts the notion that women are the experts in their own births.

Pushing with an epidural

The information above is about physiological birth ie. a woman birthing without intervention. An epidural can alter the 'urge to push' and prolong the descent of the baby once the cervix is open. An evidence based approach to pushing with an epidural is to wait until the baby's head is visible ie. is almost birthed. Then, if required, actively push to birth the baby... it should only take a few pushes. This approach reduces the chance of an instrumental delivery and decreases pushing time (Brancato et al. 2008). I have worked in a hospital where this was the standard approach and there was a lot less fetal distress and perineal trauma for women with epidurals.

It is also beneficial to help women with epidurals to get off their sacrum to increase pelvic space. So, semi-supine is perhaps the worst possible position. Many women can move and kneel or squat with an epidural – if not a side lying position allows the sacrum and coccyx to shift backwards.

The Anterior Cervical Lip: How to Ruin a Perfectly Good Birth

Posted on January 22, 2011 by midwifethinking

Edited and update: June 2016

Here is a scenario I keep hearing over and over: A woman is labouring away and all is good. She begins to push with contractions, and her midwife encourages her to follow her body. After a little while the midwife checks to 'see what is happening' and finds an anterior cervical lip. The woman is told to stop pushing because she is 'not fully dilated' and will damage herself. Her body is lying to her – she is not ready to push. The woman becomes confused and frightened. She is unable to stop pushing and fights her body creating more pain. Because she is unable to stop pushing she may be advised to have an epidural. An epidural is inserted along with all the accompanying machines and monitoring. Later, another vaginal examination finds that the cervix has fully dilated and now she is coached to push. The end of the story is usually an instrumental birth (ventouse or forceps) for an epidural related problem – fetal distress caused by directed pushing; 'failure to progress'; baby mal-positioned due to supine position and reduced pelvic tone. The message the woman takes from her birth is that her body failed her, when in fact it was the midwife/system that failed her. Before anyone gets defensive – I am not pointing fingers or blaming individuals, because I have been that midwife. Like most midwives I was taught that women must not push until the cervix has fully dilated. This assumption has been taught to midwives since the 1930s and Ina May herself warned against 'early pushing' in *Spiritual Midwifery*. This post is an attempt to prompt some re-thinking about this issue, or rather this non-issue.

Anatomy and Physiology

Birth is an extremely complex physiological process but very simplistically 3 main things occur:

1. Dilatation of the cervix
2. Rotation of the baby through the pelvis
3. Descent of the baby through the pelvis

But this is not a step-by-step process – it's all happening at the same time, and at different rates. So whilst the cervix is dilating the baby is also rotating and descending.

1. Dilatation of the cervix

Presentation²The cervix does not open as depicted in obstetric dilatation models ie. in a nice neat circle (Sutton 2001). It opens from the back to the front like an ellipse. The 'os' (opening) is found tucked at the back of the vagina in early labour and opens forward. At some point in labour almost every woman will have an anterior lip because this is the last part of the cervix to be pulled up over the baby's head. Whether this lip is detected depends on whether/when a vaginal examination is performed. A posterior lip is almost unheard of because this part of the cervix disappears first. Or rather it becomes difficult to reach with fingers first.

The cervix dilates because the muscle fibres in the fundus (top of the uterus) retract and shorten with contractions = pull it open (Coad 2011). This does not require the pressure of a presenting part ie. baby's head or bottom (lets stick to heads for now). However, the head can influence the shape of the cervix as it dilates up around it. For example, a well flexed OA baby (see pic A) will create a neater, more circular cervix. An OP and/or deflexed baby (see pic B) will create a less even shape. changing their position as they rotate.

For more about OA and OP positions see this post. Most baby's will be somewhere between these two extremes whilst the cervix is opening and will be changing their position as they rotate.

2. Rotation

Babies enter the pelvis through the brim. As you can see from the pictures above this is easier with their head in a transverse position. As the baby descends into the cavity their head will be tilted – with the parietal bone/side of the head leading. This is because the angle of the pelvis requires the baby to enter at an angle – see picture on the right. Once in the cavity the baby has room to rotate into a good position for the outlet which is usually OA. Rotation is aided by the pelvic floor and often by pushing.

3. Descent – *the urge to push*

The urge to push... and I'm talking spontaneous, guttural, unstoppable pushing... is triggered when the presenting part descends into the vagina and applies pressure to the rectum and pelvic floor. This is sometimes called the 'Ferguson reflex' – probably after some man. This reflex is not dependent on what the cervix is doing, but where and what the baby's head is doing. So, if the baby's head hits the right spot before the cervix has finished dilating, the woman will spontaneously start pushing. An alternative but common scenario is when the cervix is fully open but the baby has not descended far enough to trigger pushing. Unfortunately some practitioners will tell the woman to push and create problems instead of waiting for descent and spontaneous pushing

Pushing before full dilatation

Because we are not telling women when to push (are we?!) they will push when their body needs to. If we are directing pushing we risk working against the physiology of birth and creating problems (see previous post). There is very little research about pushing before full dilatation. Downe et al. (2008) report research conducted in the UK in 1999, and recently Borrelli, Locatelli & Nespoli (2013) published a small observational study. These studies found that the incidence of 'early pushing urge' EPU (as it is referred to in the literature) is between 20% to 40%. Interesting Borrelli et al. (2013) found that the sooner the midwife performed a vaginal examination in response to a woman's pushing urges, the more likely they were to find the cervix still there. They also found that 'early pushing' was much more common with primips (first labours)... perhaps because they are likely to take longer pushing, therefore be more likely to have a vaginal examination? And early pushing occurred in 41% of women with OP babies.

Spontaneous pushing before full dilatation is a normal and physiologically helpful when:

1. Baby's head descends into the vagina before the cervix has dilated. In this case the additional downward pushing pressure assists the baby to move beyond the cervix.
2. Baby is in an OP position and the hard prominent occiput (back of head) presses on the rectum. In an OA position this part of the head is against the symphysis pubis and the baby has to descend deeper before pressure on the rectum occurs from the front of the head. In the case of an OP position, pushing can assist rotation into an OA position.

I am yet to find any evidence that pushing on an unopened cervix will cause damage. I have been told many times that it will, but have never actually seen it happen. Borrelli et al. (2013) found no cervical lacerations, 3rd degree tears, postpartum haemorrhages in the women with an EPU. A recent review of the available research (Tsao 2015) concluded: *"Pushing with the early urge before full dilation did not seem to increase the risk of cervical edema or any other adverse maternal or neonatal outcomes."*

I have encountered swollen (oedematous) cervixes – mostly in women with epidurals who are unable to move about. But, this occurs without any pushing. I can understand how directed, strong pushing could bruise a cervix. But I don't see how a woman could damage herself by following her urges. In many ways the argument regarding pushing, or not, is pointless because once the Ferguson reflex takes over it is beyond anyone's control. You either let it happen, or start commanding the women to do something she is unable to do ie. stop pushing.

I can only find one study that examined women's experiences of an 'early' pushing urge (Celesia et. al 2016). The women in this study were told by their midwives not to push: *"In coping with EPU, women found it difficult to follow the midwives' advice to stop pushing because this was conflicting with what their body was suggesting [to] them. Throughout their attempts to stop pushing, women were accompanied by the conflicting feelings of naturalness of going along with the pushes and discomfort of going against their bodily sensation. Women were confused by the contradiction between their physical perceptions and the need to hold back pushes suggested by the midwife at the same time. Moreover, they reported difficulty in realizing what was happening. This confusion was sometimes related to the feeling of not being believed by health care professionals"*(p. 23)

Telling women to push or not to push is cultural, it is not based on physiology or research. For example, in some parts of the world women are told to push throughout their entire labour (on an unopened cervix!). This is often accompanied by their midwife manually stretching the cervix too – ouch. Alternatively, in other parts of the world women are told not to push until a prescribed point in labour. It seems midwives are bossy worldwide.

When left to get on with their birth, occasionally women will complain of pain associated with a cervical lip being 'nipped' between the baby's head and their symphysis pubis during a pushing contraction. In this case the woman can be assisted to get into a position that will take the pressure off the cervical lip (eg. backward leaning). When undisturbed women will usually do this instinctively. At a recent waterbirth a mother (first baby) who had been spontaneously pushing for a while on all fours floated onto her back. A little while later she asked me to feel where the baby was (for her not me) – baby was not far away with a fat squishy anterior lip in front of the head. The mother also had a feel, then carried on pushing as before. Her daughter was born around 30 mins later.

Suggestions

Avoid vaginal examinations (VEs) in labour. What you don't know (that there is a cervical lip) can't hurt you or anyone else. VE's are an unreliable method of assessing progress, and the timelines prescribed for labour are not evidence based (see this post).

Ignore pushing and don't say the words 'push' or 'pushing' during a birth. Asking questions or giving directions interferes with the woman's instincts. For example, asking 'are you pushing' can result in the women thinking... am I? Should I be? Shouldn't I be? Thinking and worrying is counterproductive to oxytocin release and therefore birth. If she is pushing, let her get on with it and shush. For more about pushing in general and a link to a great audio by Gloria Lemay see this post.

Do not tell the woman to stop pushing. If she is spontaneously pushing (and you have not coached her) she will be unable to stop. It is like telling someone not to blink. Pushing will help not hinder the birth. Telling her not to push is disempowering and implies her body is 'wrong'. In addition, after fighting against her urge to push she may then find it difficult to follow her body and push when permitted to do so (Bergstrom 1997).

If a woman has been spontaneously pushing for a while with excessive pain (usually above the pubic bone) she may have a cervical lip which is being nipped against the symphysis pubis. There is no need to do a vaginal examination to confirm this unless she wants you to. If you suspect, or know there may be a cervical lip:

- Reassure her that she has made fantastic progress and only has little way to go.
- Ask her to allow her body to do what it needs to, but not to force her pushing.
- Help her to get into a position that takes the pressure off the lip and feels most comfortable – usually a reclining position. She may be in a forward leaning position because it relieves the back pain associated with an OP presentation and be reluctant to move. This is one of the rare times a suggestion/direction is appropriate.
- If the situation continues, and is causing distress – during a contraction apply upward pressure (sustained and firm) just above the pubic bone in an attempt to ‘lift’ the cervix up.
- If the woman is requesting further assistance, the cervical lip can be manually pushed over the baby’s head internally – by her or you. This is extremely uncomfortable! Be aware that this may allow the baby’s head to move into the vagina before he/she has rotated which could create further problems.

Note: This nipping situation is rare and usually a cervical lip will simply move out of the way without causing any problems.

Summary

An anterior cervical lip is a normal part of the birth process. It does not require management and is best left undetected. The complications associated with a cervical lip are caused by identifying it, and managing the situation as though it is a problem.