



## Post Partum Haemorrhage (PPH)

### What is a PPH?

PPH is classified as a genital blood loss of above 500ml within the first 24 hours of giving birth. This may come from the uterus, cervix, vagina or labia or more than one of these areas. There are grades of PPH such as 'minor' (500-1000ml), or 'major' (more than 1000ml) but, in medical terms, what is more important than the actual blood loss, is the effect such loss has on an individual woman. Some women can experience more than 1000mls without significant effects, whereas other women lose less than 500mls and feel very unwell. This slightly arbitrary definition can therefore be a helpful guideline, proving useful during the episode of PPH to help work out the best care plan to offer. However, how each woman feels in herself after the event is far more important, especially when considering how the PPH may affect any future birth plans or any follow up treatment.

### What does 500mls look like?

Many women and partners, report being surprised by how much blood is around after birth, even if it is totally 'normal'. To get an idea, measure out 500mls of water and imagine it being tipped onto a hard floor, bearing in mind that for most women, blood loss at birth will be much less than this.

### Why might a PPH happen?

There are a number of causes of a PPH. The most common reason is that for some reason, a woman's uterus is unable to rapidly shrink itself down after the birth of the placenta. It should do this in order to close off the open blood vessels left after the placenta removes itself from the uterine wall. This is frequently referred to in very negative language, such as the uterus "fails" to contract or contractions "fail". Your body doesn't fail! There are many reasons this this might happen, and none of them are "failure" of the woman or her body. Usually it is caused by external factors - her environment, or perhaps drugs that she has had during labour. While PPH can still happen even in the most optimal birth environment, it's far less likely to happen if a woman's natural oxytocin is flowing well. This will be covered in more details below.

Another, less common reason for PPH is damage to the tissues of the uterus, cervix, vagina or labia, including the planned cutting of the uterus in a caesarean, problems caused by the placenta embedding itself in the uterus (placenta accreta), uterus scar separation, tears caused by the baby's passage or instrumental delivery and episiotomy.

Women whose placenta has not moved away from the entrance to the cervix towards the end of

pregnancy, a situation known as placenta praevia, will usually be advised to birth their baby by caesarean section. This is because during a vaginal birth, as the cervix opens the placenta can either be in the way of the baby's passage, or it might be more likely to partially or completely detach from the uterus before the baby's birth, which can be a very dangerous situation for both mother and baby. This doesn't happen to every woman with placenta praevia, and women whose placenta is close to, but not covering the cervix may be able to birth vaginally.

Tissue left in the uterus, eg a part of the placenta, will often lead to prolonged and/or heavier bleeding and can also significantly affect a mother's milk supply. This is why your midwife will carefully check your placenta to see if it looks whole.

A woman's blood may not have sufficient blood components to clot fast or sufficiently enough. Sometimes, a woman who is taking anti-blood clotting medications can experience a PPH because of the medication.

### **How is it treated?**

Most incidents of PPH will resolve by themselves, or with minimal intervention, and so almost all incidents of PPH can be dealt with in home births or midwife led units. If it becomes clear that the PPH is not going to stop on its own or despite the normal interventions, a woman can decide to transfer into an obstetric unit if she is not already there, where there will be additional treatments available. RCOG's Green Top Guideline describes the care that they recommend is offered to women in this situation.

<https://obgyn.onlinelibrary.wiley.com/doi/full/10.1111/1471-0528.14178>

### **I had a PPH before. Will it happen again?**

The chances of experiencing a PPH in a subsequent birth depends on why the PPH happened in the previous birth. For example, if it was caused by a known event such a tear then it is no more likely to happen again than last time. If the PPH followed an induction of labour and was caused by your uterus not reacting to the drugs fast enough, there is no reason to think that if you have a spontaneous labour (that is, your body goes into labour when it's ready as opposed to being started artificially) you will be any more likely than anyone else to experience. This is because your body responds differently to a spontaneous labour than to an induced one. Partly this is due to the oxytocin receptors in your body not necessarily being completely ready to take in the massive amounts of oxytocin that is released in labour - they may not be ready to respond fully until your body goes into spontaneous labour.

### **What can I do to minimise my chance of a PPH?**

The most common cause of PPH is when the uterus is not able to contract firmly enough after birth to close off the blood vessels left open after the placenta comes away from the uterine wall.

The Birthplace Study 2011, a huge UK based study into the birth outcomes of nearly 65,000 women

across the UK, showed that up to twice as many women experienced a PPH serious enough to need a blood transfusion if they planned to birth in hospital compared to planning to birth at home or in a midwife led unit. While the data on women who are not classed as “low risk” is still being analysed, it seems to make sense that “high risk” women who do not have a specific condition or personal situation which also increases her risk of bleeding excessively would also be at a lower risk of PPH if they plan to birth outside of an obstetric unit.

The big question, though, is why could this be? There are as yet no definitive answers to this, but by looking at the normal physiology of birth we can make an informed assumption.

One of the most important hormones that flow during birth is oxytocin. Oxytocin, “the hormone of love”, is released in huge quantities during birth. Oxytocin is responsible, amongst other things, for the uterine contractions which lead to the baby’s birth, and also the placenta’s birth - and for the uterus to contract down after the placenta is born to cut off the blood vessels that the placenta was attached to.

Oxytocin is often called the “shy” hormone. It is released when a woman feels safe and secure.

**These things help oxytocin to flow:**

- Feeling safe and loved
- Being comfortably warm
- Dimmed lights
- Trusting birth attendants, if any
- Being left to sink into the “birth zone” and not interrupted
- Feeling protected
- Freedom to move in the way that her body tells her to
- Physical connection with a loved or trusted person, sexual and non sexual
- Skin to skin at birth, and breastfeeding or baby nuzzling and rooting for the breast

**These things interrupt oxytocin flow:**

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Feeling physically exposed

- Lack of trust, or fear in birth attendants
- Bright lights
- Being cold
- Being moved, or being in a position where she can't move
- Having to consider and answer too many questions, or "chat"
- Fear or worry of any kind, as this triggers adrenaline, which inhibits oxytocin flow. This is a normal, and logical reaction for birthing mammals. As we are at our most vulnerable during birth, anything that causes fear or anxiety can stop or slow down the birthing process until we can reach a safe space.
- Lack of skin to skin - separation of mother and baby

All of these things come together, as well as more personal needs for individual women, to "hold the space" - a term often used by birth doulas to define the attempt to create a bubble of protective space around the birthing woman, to allow her oxytocin to flow and her birth to progress well.

Most hospitals are set up with bright lights, people coming in and out, midwives that are not known to us, and a sense that we're in someone else's space. Many hospitals are working hard to change this, but even with kind midwives and dimmed lights, many women react to seeing the medical equipment around and just don't feel completely relaxed.

It is also important to note that for some women, being in hospital is reassuring, and allows them to relax better into labour than they would if they were not in hospital. This is why personal preference on place of birth is so important.

It is vital to keep the oxytocin flowing for quite some time after the baby is born. The placenta's birth relies heavily on strong oxytocin flow, and interrupting it at this time can be a cause of some PPHs.

*"They told me to get out of the pool to birth the placenta which I hadn't expected. It was really tricky getting out of the pool which really "took me out of my zone". I was cold, naked and exposed and my contractions just stopped. I'm sure this led to my PPH" - Emma*

After birth, women are offered an injection of artificial oxytocin, known in the UK as Syntocinon, (or,

rarely, Syntometrin). The pros and cons of this are covered in detail in the AIMS book, “The Third Stage: Birthing your Placenta”. Women whose labours are induced with artificial oxytocin are strongly advised to have the drug after birth to release the placenta, and a “managed” third stage (again, covered in detail in the AIMS book). This is because their bodies are less likely to be producing enough natural oxytocin and therefore more of the artificial version will be needed to contract the uterus to release the placenta, and then to clamp down the uterus to reduce the chance of excessive bleeding, or a PPH. Women who have given birth by caesarean will be given the drug to contract the uterus after the surgery. However, for women who have had a vaginal birth with no drugs which affect the uterus (uterotonics), their body will continue to produce oxytocin after birth to clamp down the uterus provided that the birth environment doesn’t inhibit it. “Holding the space” is really important for at least an hour after the placenta is born.

Avoiding a PPH caused by trauma, ie bleeding caused by damage to tissues: This might be the uterus, cervix, vagina or labia with the most common problematic bleeds being from the uterus. Uterus trauma may be caused by cutting into it in a caesarean birth, or from the tissues of the uterus separating at the site of a previous caesarean incision (known by the dramatic name of “uterine rupture”, but in fact usually referring to a much less problematic event - see the “VBAC” page for more information, and our book “Birth after Caesarean”), or by the uterus tissue spontaneously separating which is almost unheard of other than in the case of induction of labour, where the artificially induced labour creates contractions which the uterus cannot cope with. Damage to the vagina or labia can happen during the baby’s passing through the birth canal, or damage from an instrumental delivery or episiotomy. It is rare that this type of injury leads to a PPH.

Reducing the risk of trauma bleeds means reducing the risk of uterine tissue separation in a birth after caesarean (see the VBAC page, or the AIMS book “Birth After Caesarean”), and birthing in ways which mean that the baby is most likely to birth easily. For most women, labour and birth works best when she is not lying on her back. Indeed, any other position is preferable, but most women prefer to be on all fours, or kneeling/leaning over something. The bed can be used to lean on rather than lie on! In water, women can more easily find the position that works for them. A woman’s instinct will tell her what position feels best, and this is likely to be the one which leads to her baby having the most straightforward path to birth.

### **I’ve been told that a managed third stage would reduce my chance of a PPH. Is this true?**

A managed third stage might help to reduce the risk of PPH, but if you decide to have a physiological third stage and you do start to bleed more heavily than is usual, the same treatment as for a managed third stage would be the first line of management. This topic is fully explored in the book “Birthing Your Placenta - The Third Stage” written by Nadine Edwards for AIMS and published by AIMS.

### **Low haemoglobin / Anaemia / low platelets**

Firstly, it is really important to understand that low HB and low platelets are two different things.

Lowered haemoglobin (Hb), meaning lowered iron levels, is normal towards the end of pregnancy although if you are experiencing the effects of anaemia then treatment may improve your symptoms. However, lowered Hb does not appear to increase your risk of a PPH. An [observational study from 2015](#) seemed to imply that women with very severe anaemia, of a kind seldom seen in the developed world and which may be linked to other malnutrition problems, might lead to an increased chance of uterine atony leading excessive bleeding. However, this still seems to be a low chance, and if there is a link between lowered Hb and PPH, it remains unproven, and most likely only refers to very severe anaemia.

However, lowered Hb does mean that the effects of a PPH might affect you more quickly, or it might affect you more severely over time, than a woman who had a higher level before birth.

Often, women will be strongly encouraged to take iron supplements to increase their iron count but often these lead to unpleasant complications such as nausea and constipation. Regular iron tablets are hard for the body to absorb. Diet can be enough to increase iron count, but if you find that you need supplements, more gentle ones such as Spatone may be better tolerated and work more effectively than traditional iron tablets.

Platelets are the components in your blood which clot it. Low platelets could mean that it's harder for your body to clot your blood which means that any bleed may be more severe. Low platelets can sometimes be caused by an infection, and levels will recover once the infection has gone. A healthy diet can help the platelets to recover faster.

#### **Related Links:**

RCOG Green Top Guideline: <https://obgyn.onlinelibrary.wiley.com/doi/full/10.1111/1471-0528.14178>

Observational Study of women with anaemia:

<http://www.sciencedirect.com/science/article/pii/S2090506814001158>

Birthplace Study, 2011: <https://www.npeu.ox.ac.uk/birthplace>

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AIMS supports all maternity service users to navigate the system as it exists, and campaigns for a system which truly meets the needs of all. AIMS does not give medical advice, but instead we focus on helping women to find the information that they need to make informed decisions about what is right for them,

and support them to have their decisions respected by their health care providers. The AIMS Helpline volunteers will be happy to provide further information and support. Please email [helpline@aims.org.uk](mailto:helpline@aims.org.uk) or ring 0300 365 0663.