

# Prevention of Postpartum Hemorrhage Initiative: Toolkit

Glossary of terms



**USAID**  
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**POPPI**

Prevention of Postpartum  
Hemorrhage Initiative

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2008

## Prevention of Postpartum Hemorrhage Initiative (POPPHI)

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### **About POPPHI**

The Prevention of Postpartum Hemorrhage Initiative (POPPHI) is a USAID-funded, five-year project focusing on the reduction of postpartum hemorrhage, the single most important cause of maternal deaths worldwide. The POPPHI project is led by PATH and includes four partners: RTI International, EngenderHealth, the International Federation of Gynaecology and Obstetrics (FIGO), and the International Confederation of Midwives (ICM).

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## ***Glossary of terms***

### **Acronyms**

AMTSL	active management of the third stage of labor
CCT	controlled cord traction
DIC	disseminated intravascular coagulopathy
FIGO	International Federation of Gynaecology and Obstetrics
HLD	high-level disinfected
ICM	International Confederation of Midwives
IM	intramuscular
IU	international units
MTCT	mother to child transmission of HIV/AIDS
PMTCT	prevention of mother to child transmission of HIV/AIDS
POPPHI	Prevention of Postpartum Hemorrhage Initiative
PPH	postpartum hemorrhage
PPPH	prevention of postpartum hemorrhage
TTI	time-temperature indicator
USAID	United States Agency for International Development
VVM	vaccine vial monitor
WHO	World Health Organization



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**Definition of a maternal death:** According to the WHO, "A maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes<sup>1</sup>.

Generally there is a distinction between:

- a **direct maternal death** that is the result of a complication of the pregnancy, delivery, or their management, and
- an **indirect maternal death** that is a pregnancy-related death in a woman with a preexisting or newly developed health problem. Other deaths during but unrelated to a pregnancy are termed *accidental*, *incidental*, or **non-obstetrical** maternal deaths.

**Maternal Mortality Ratio (MMR)** is the ratio of the number of maternal deaths per 100,000 live births. The MMR is used as a measure of the quality of a health care system

### Key Definitions

**Active management of the third stage of labor** - A combination of actions performed during the third stage of labor to prevent PPH. AMTSL speeds delivery of the placenta by increasing uterine contractions and prevents PPH by minimizing uterine atony. The components of AMTSL are:

- Administration of a uterotonic agent within one minute after the baby is born (oxytocin is the uterotonic of choice)
- Controlled cord traction (CCT)
- Uterine massage immediately after delivery of the placenta

**Anemia:** A deficiency of red blood cells (RBCs) and/or hemoglobin. This results in a reduced ability of blood to transfer oxygen to the tissues, causing tissue hypoxia. Since all human cells depend on oxygen for survival, varying degrees of anemia can have a wide range of clinical consequences. Hemoglobin (the oxygen-carrying protein in the red blood cells) has to be present to ensure adequate oxygenation of all tissues and organs. The three main classes of anemia include excessive blood loss (acutely such as a hemorrhage or chronically through low-volume loss), excessive blood cell destruction (hemolysis) or deficient red blood cell production (ineffective hematopoiesis). In menstruating women, dietary iron deficiency is a common cause of deficient red blood cell production.

Anemia is defined as <12/dL for non-pregnant women and <10 g/dL for pregnant women

Severe anemia is defined as hemoglobin less than 7 g/dL

**Augmentation of labor:** Stimulating the uterus during labor to increase the frequency, duration and strength of contractions.

**Bedside clotting test:** A test to assess clotting status of the blood that can be performed at the woman's bedside. The provider collects venous blood in a small, dry, clean, plain glass test tube, holds the tube in a closed fist to keep it warm for 4 minutes,

and then assesses if a clot is forming. Failure of a clot to form after 7 minutes or a soft clot that breaks down easily suggests a blood clotting disorder (coagulopathy).

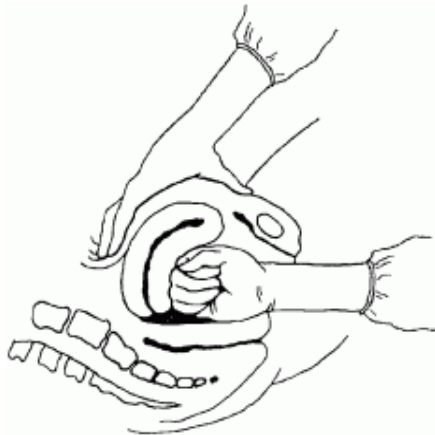
**Bimanual compression of the uterus:** Bimanual compression techniques are applied postpartum when uterine bleeding persists and the placenta is either partially adhered to the uterine wall or separated and the uterus is atonic. When previous management – uterine massage, giving a uterotonic drug, and emptying the uterine bladder – has been unresponsive, the provider will need to choose a method of compressing the uterus. Internal bimanual compression is more effective than external but should only be attempted if the provider is trained in its use and has sterile, elbow-length gloves.

**External bimanual compression of the uterus:** The uterus is compressed externally between two hands to constrict uterine blood vessels and stop bleeding.



**Hand positions for external compression<sup>2</sup>**

**Internal bimanual compression of the uterus:** The uterus is compressed between one hand inserted into the vagina and a second hand supporting the uterus externally to constrict uterine blood vessels and stop bleeding.



**Internal bimanual compression of the uterus<sup>3</sup>**

**Birth preparedness plan:** An action plan developed by a pregnant woman and her family to prepare for the birth of her baby.

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**Cervical ripening:** The process the uterine cervix undergoes in preparation for labor and delivery during which the cervix becomes soft and thinner. These chemical and physical changes are required for cervical dilatation, labor, and delivery of a fetus. If labor is induced before it has begun spontaneously, certain chemical or mechanical agents, such as misoprostol, may be used to ripen the cervix to increase the likelihood that induction will succeed.

**Coagulopathy:** A medical term for a defect in the body's mechanism for blood clotting. While there are several possible causes for coagulopathies, they generally result in excessive bleeding and a lack of clotting.

**Cleaning:** The second critical step in processing instruments that refers to scrubbing with a brush, detergent, and water to remove blood, other body fluids, organic material, tissue, and dirt. In addition, cleaning greatly reduces the number of micro-organisms (including bacterial endospores) on items. If items have not first been cleaned, further processing might not be effective.

**Complication readiness plan:** An action plan developed by pregnant and postpartum women and their families to recognize and prepare to respond in case of a complication.

**Compression of abdominal aorta:** A technique used when the placenta has been delivered and the uterus continues to bleed after unsuccessfully attempting bimanual compression of the uterus. The aim of this technique is to apply pressure over the abdominal aorta directly through the abdominal wall to reduce blood flow to the uterus.

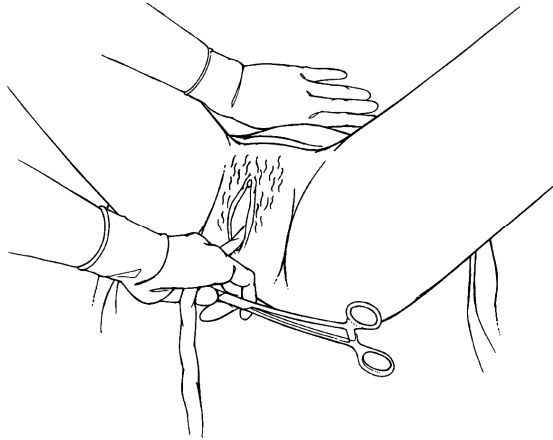


**Compression of abdominal aorta and feeling the femoral pulse<sup>3</sup>**

**Contraindication:** A condition which makes a particular treatment or procedure inadvisable. A contraindication may be absolute or relative.

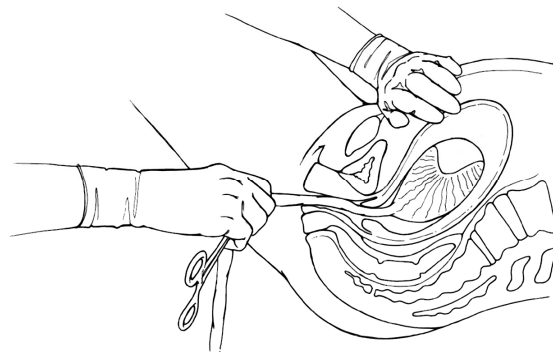
- An **absolute** contraindication is a situation which makes a particular treatment or procedure absolutely inadvisable. For example, insertion of an IUD is absolutely contraindicated in women with current pelvic inflammatory disease (PID).
- A **relative** contraindication is a condition which makes a particular treatment or procedure somewhat inadvisable but does not rule it out. For example, X-rays in pregnancy are relatively contraindicated (because of concern for the developing fetus) unless the X-rays are absolutely necessary.

**Controlled cord traction (CCT):** Traction on the cord during a contraction combined with counter-traction upward on the uterus with the provider's hand placed immediately above the symphysis pubis. CCT facilitates expulsion of the placenta once it has separated from the uterine wall.



**Applying controlled cord traction with counter traction to support the uterus<sup>4</sup>**

**Countertraction (counter pressure):** The action of lifting or elevating the uterus toward the mother's head during CCT to help prevent uterine inversion.



**Applying controlled cord traction with counter traction to support the uterus<sup>4</sup>**

**Danger sign:** A sign or symptom indicating that a woman or newborn has a health problem and should get medical care as soon as possible.

**Decontamination:** The first step in processing instruments and other items for reuse. Decontamination kills viruses (such as hepatitis B, other hepatitis viruses, and HIV) and many other micro-organisms, making these items safer to handle by the staff who perform cleaning and further processing.

**Delayed cord clamping:** Clamping the umbilical cord after cord pulsations have ceased. Studies show that delaying clamping and cutting of the umbilical cord is helpful to both full-term and preterm babies. In high-risk situations (e.g., low birth weight or premature infant), delaying clamping by as little as a few minutes is helpful. In situations where cord clamping and cutting was delayed for preterm babies, these infants had higher hematocrit and hemoglobin levels and a lesser need for transfusions in the first 4 to 6 weeks of life than preterm babies whose cords were clamped and cut immediately after birth. If CCT is practiced after administration of a uterotonic, relatively delayed clamping (2 to 3 minutes after birth of the baby) will be necessary.

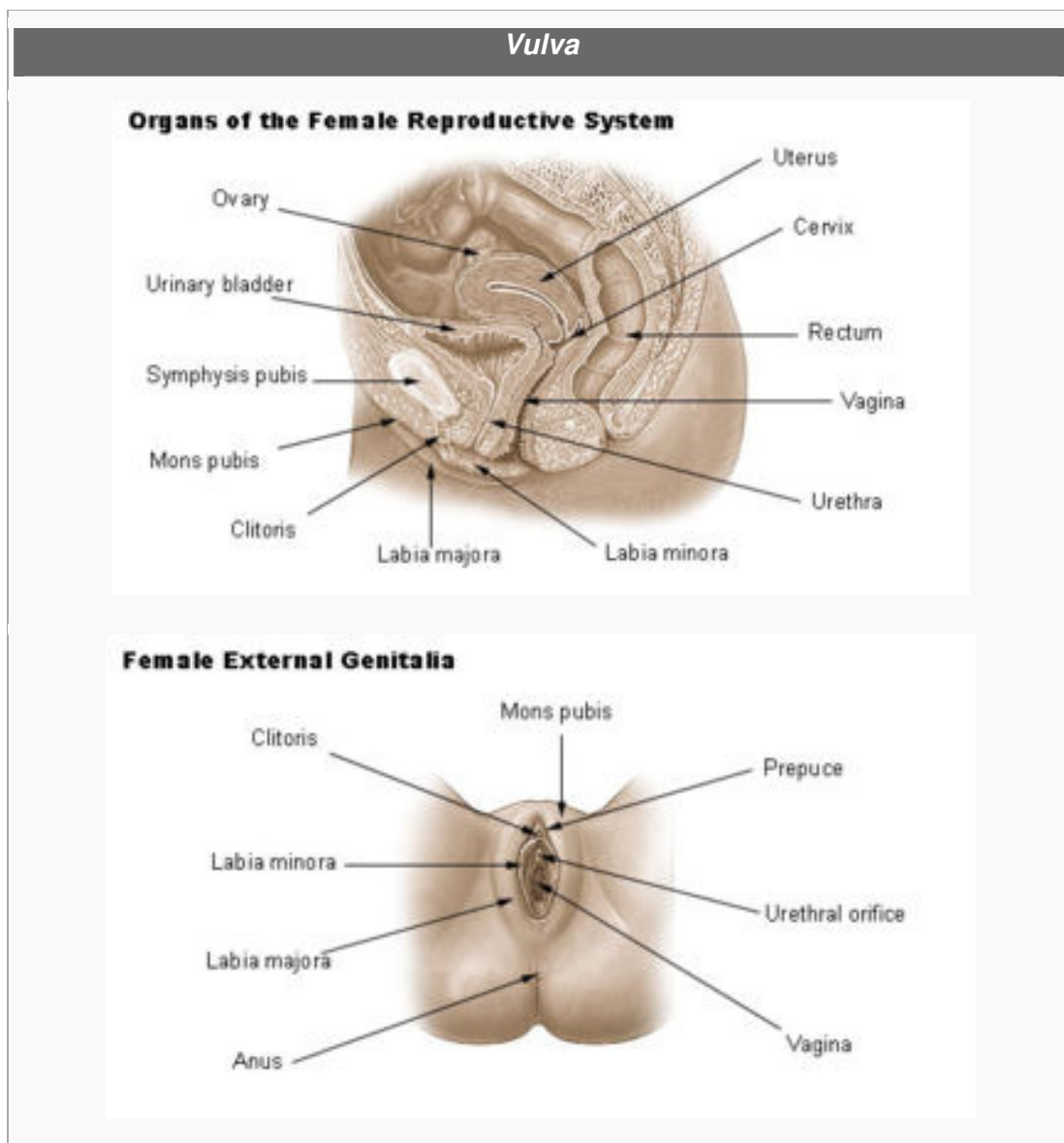
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**Delayed PPH:** Excessive vaginal bleeding (vaginal bleeding increases rather than decreases after delivery), occurring **more than** 24 hours after childbirth.

**Disinfectant:** An antimicrobial agent applied to non-living objects to destroy microorganisms

**Disseminated intravascular coagulopathy (DIC):** A pathological process in the body where the blood starts to coagulate throughout the whole body. This depletes the body of its platelets and coagulation factors, and there is an increased risk of hemorrhage.

**External female genitalia** - The external genital organs of the female are collectively known as the **vulva** (plural *vulvae*, *vulvas*) or **genitalia feminina externa**. In common speech, the term *vagina* is often used improperly to refer to the vulva or female genitals generally, even though, strictly speaking, the vagina is a specific internal structure and the vulva is the exterior genitalia only.



Organs of the female reproductive system<sup>5</sup>

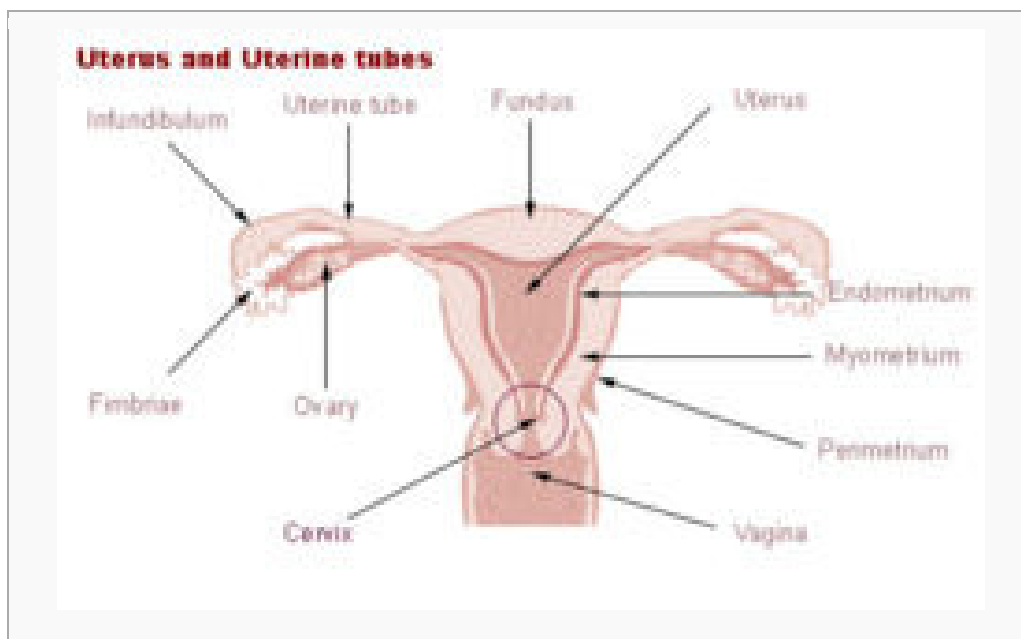
**Female genital cutting (FGC), female genital mutilation (FGM), or female circumcision (FC):** The excision or tissue removal of any part of the female genitalia for cultural, religious or other non-medical reasons.

**Fetal distress:** the presence of signs in a pregnant woman—before or during childbirth—that the fetus is not well or is becoming excessively fatigued.

**Fibrin net:** Fibrin is a protein involved in the clotting of blood. It form a "mesh" (or net) that forms a hemostatic plug or clot (in conjunction with platelets) over a wound site and helps to stop bleeding.

**Fundal pressure:** The action of pressing on a woman's abdomen during labor to help move the baby out. This is a dangerous action that can harm both the woman and her baby.

**Fundus of the uterus -** The **fundus** of the uterus is the top portion of the uterus opposite from the cervix.



**Uterus and uterine tubes<sup>6</sup>**

**General waste:** Non-hazardous waste that poses no risk of injury or infections. This is similar in nature to household trash. Examples include paper, boxes, packaging materials, bottles, plastic containers, and food-related trash.

**Hematocrit:** A blood test to measure the proportion of blood volume that is occupied by red blood cells. Hematocrit measures the number of red blood cells and the size of red blood cells.

**Hemoglobin:** An iron-containing protein in red blood cells that transports oxygen.

**High level disinfection (HLD):** The process that eliminates all micro-organisms (including bacteria, viruses, fungi, and parasites), but does **not** reliably kill all bacterial endospores, which cause diseases such as tetanus and gas gangrene.

**Immediate PPH:** Vaginal bleeding in excess of 500 mL, occurring **less than 24** hours after childbirth.

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**Induction of labour:** The stimulation of uterine contractions to produce delivery before the onset of spontaneous labor.

**Instrumental delivery:** Term used to describe either a forceps or ventouse (vacuum) delivery.

**Intermittent preventive treatment for malaria during pregnancy (IPTp):**

Administration of two or three full, curative treatment doses of an efficacious, preferably single-dose, antimalarial drug (e.g., sulfadoxine-pyrimethamine) at predefined intervals during pregnancy, beginning in the second trimester after quickening. IPTp can significantly reduce maternal anemia and low birth weight.

**Lacerations (tears) of the birth canal:** Nicks or tears anywhere in the birth canal that occurred during childbirth.

- **First-degree lacerations:** Superficial tears involving the skin of the perineum and the tissue around the opening of the vagina or the outermost layer of the vagina itself (called the vaginal mucosa), but no muscles.
- **Second-degree laceration:** Tear that goes through the skin and vaginal mucosa, and into the muscles underneath.
- **Third-degree laceration:** Tear in the vaginal tissue, perineal skin, and perineal muscles that extends into the anal sphincter.
- **Fourth-degree laceration:** Tear that goes through the anal sphincter and the tissue underneath it.

**Low birth weight:** Babies weighing less than 2500 grams at birth.

**Manual exploration (“revision”) of the uterus:** Exploration of the uterine cavity after childbirth by inserting the hand through the cervix and into the uterus to remove any blood clots or retained placenta.

**Medical waste:** Material generated in the diagnosis, treatment, or immunization of clients, including:

- **Blood, blood products, and other body fluids,** as well as materials containing fresh or dried blood or body fluids, such as bandages and surgical sponges
- **Organic waste** such as human tissue, body parts, the placenta, and the products of conception
- **Sharps** refers to any sharp instrument or object used in the delivery of health care services--including hypodermic needles, suture needles, scalpel blades, sharp instruments, IV catheters, razor blades, blood tubes, pipettes, and other glass items that have been in contact with potentially infectious materials (such as glass slides and cover slips)

**Metritis:** Inflammation of the lining of the uterus (of the endometrium).

**Nipple stimulation:** Gentle rubbing, rolling, or suckling of the nipples to encourage uterine contractions.

**Non-cephalic presentation:** Any presentation of the fetus that is not cephalic.

**Obstetric forceps:** Instruments designed to aid in the delivery of the fetus by applying traction to the fetal head.

**Partograph:** Tool used by skilled birth attendants to monitor and assess the progress of labor and the woman's and fetus' health and to identify when intervention is necessary.

**Physiologic (expectant) management of the third stage of labor (PMTSL):**

Management of the third stage of labor that involves waiting for signs of placental separation and allowing for spontaneous delivery of the placenta aided by gravity and/or nipple stimulation. The components of PMTSL are:

- Waiting for signs of separation of the placenta (cord lengthening, small blood loss, uterus firm and globular on palpation at the umbilicus).
- Encouraging maternal effort to bear down with contractions and, if necessary, to encourage an upright position.
- Uterine massage after the delivery of the placenta as appropriate.

**Placenta accreta:** A severe obstetric complication occurring when the placenta attaches itself too deeply and too firmly into the wall of the uterus, preventing separation of the placenta from the uterus.

**Placental membranes:** The semipermeable layer of foetal tissue separating the maternal from the foetal blood in the placenta.

**Post-abortion care:** Care for the woman following a spontaneous or induced abortion. Comprehensive post-abortion care services should include both medical and preventive healthcare. The key elements of post-abortion care are:

- Emergency treatment of incomplete abortion and potentially life-threatening complications
- Post-abortion family planning counseling and services
- Links between post-abortion emergency services and the reproductive healthcare system

**Postpartum:** Neither "postpartum period" nor "puerperium" (which are more or less synonymous) are officially defined. WHO has, however, formally designated the first 28 completed days after birth of the infant as the neonatal period. Traditionally the postpartum period ends 6 weeks after birth.

**Precautions:** Conditions where caution is indicated but where the conditions do not necessarily rule out the treatment or medical procedure. The health care provider weighs the benefits of the treatment or medical procedure against any ill effects that may occur.

**Pre-term baby (premature baby):** Babies born before 37 completed weeks of the pregnancy.

**Prophylaxis:** A medical or public health procedure whose purpose is to prevent, rather than treat or cure, disease. Roughly, prophylactic measures are divided between *primary* prophylaxis (to prevent the development of a disease) and *secondary* prophylaxis (to protect against the disease worsening when it has already developed).

**Prostaglandins:** Naturally occurring fatty acids found in the uterus, menstrual fluids, and amniotic fluid. Misoprostol, an E<sub>1</sub> analog prostaglandin, is used for a range of obstetric and gynecologic purposes such as cervical ripening, induction of labor, prevention and treatment of PPH.

## **Glossary of terms**

**Protective gear:** Clothing, gloves, goggles, or other gear designed to protect the wearer's body or clothing from injury by chemicals or infection, for job-related occupational safety and health purposes.

**Retained placenta or placental fragments:** The placenta or fragments of the placenta are not spontaneously expelled.

**Retroplacental clot** - At the area where the placenta separates from the uterus a clot forms. This clot, known as a retroplacental clot, collects between the uterine wall and the placenta and further promotes separation

**Retraction:** The act of the uterine muscle pulling back. Retraction is the ability of the uterine muscle to keep its shortened length after each contraction. Together with contractions, retraction helps the uterus become smaller after the delivery of the baby.

**Risk factor:** Something that increases a person's chances of developing a disease or a complication. Risk factors may be associated with but do not necessarily cause a particular disease or complication, because association does not imply causation.

**Sepsis:** The presence of bacteria (bacteremia) or other infectious organisms or their toxins in the blood (septicemia) or in other tissue of the body.

**Severe PPH:** Vaginal bleeding in excess of 1,000 mL following childbirth.

**Shock:** A serious, often life-threatening medical condition where insufficient blood flow reaches the body tissues.

**Side effects:** Problems that occur when treatment goes beyond the desired effect or problems that occur in addition to the desired therapeutic effect.

**Skilled birth attendant:** A “skilled” birth attendant refers exclusively to people with midwifery skills (for example, midwives, doctors and nurses) who have been trained to proficiency in the skills necessary to manage normal deliveries and diagnose, manage or refer complications. Skilled attendants must be able to manage normal labor and delivery, recognize the onset of complications, perform essential interventions, start treatment and supervise the referral of mother and baby for the interventions that are beyond the attendants’ competence or not possible in the particular setting. Depending on the setting, other health-care providers, such as auxiliary nurse/midwives, community midwives, village midwives and health visitors, may also have acquired appropriate skills if they have been specially trained. “Non-skilled” birth attendants are those care providers who do not satisfy the above conditions.<sup>7</sup>

### **Stages of labor**

- **First stage of labor** - The first stage of labor begins with the onset of contractions and ends when the cervix is fully dilated (10 cm). This stage is divided into two phases, known as latent and active phases of labor. During latent phase (0 to 4 cm dilatation), the uterine cervix gradually effaces (thins out) and dilates (opens). This is followed by active labor (4 to 10 cm dilatation), when the uterine cervix begins to dilate more rapidly and contractions are longer, stronger, and closer together.
- **Second stage of labor** - The second stage of labor begins when the uterine cervix is fully dilated and ends with the birth of the baby. This is sometimes referred to as the pushing stage.

- **Third stage of labor** - The third stage of labor begins with birth of the newborn and ends with the delivery of the placenta and its attached membranes.
- **Fourth stage of labor (also known as the “immediate postpartum” period )** - The fourth stage of labor begins with delivery of the placenta and goes from one to six hours after delivery of the placenta, or until the uterus remains firm on its own. In this stabilization phase, the uterus makes its initial readjustment to the non-pregnant state. The greatest numbers of women die from PPH during this period.

**Sterilization:** Sterilization protects clients by eliminating **all** microorganisms (bacteria, viruses, fungi, and parasites), including bacterial endospores, from instruments and other items.

**Term baby (Full-term baby):** Baby born between 38 to 42 weeks gestational age.

**Time temperature indicator:** Provides visual history of temperature exposure on packages / products during shipment and storage.

**Tonic or tetanic contractions** – Continuous contractions with no relaxation.

**Trapped (entrapped) twin:** A twin becomes trapped in the uterus after the first twin is born.

**Uterine atony:** Loss of tone in the uterine muscle. Normally, contraction of the uterine muscles compresses the uterine blood vessels and reduces blood flow, increasing the chance of coagulation and helping to prevent bleeding. The lack of uterine muscle contraction or tone can cause an acute hemorrhage. Clinically, 75 to 80 percent of PPH cases are due to uterine atony.<sup>8</sup>

**Uterine inversion:** A turning of the uterus inside out, whereby the uterine fundus is forced through the cervix and protrudes into or outside of the vagina.

**Uterine massage:** An action used after the delivery of the placenta in which the provider or the woman places one hand on the fundus of the uterus through the woman’s abdomen to rub or knead the uterus until it is firm. Sometimes blood and clots are expelled during uterine massage.



**Massaging the uterus immediately after the placenta delivers<sup>9</sup>**

**Uterine rupture:** A tear in the wall of the uterus. In a complete rupture, the tear goes through all layers of the uterine wall and the consequences can be dire for mother and baby. In an incomplete rupture the peritoneum is still intact. A uterine rupture is a life-threatening event for mother and baby. A uterine rupture typically occurs during early labor, but may already develop during late pregnancy.

## ***Glossary of terms***

**Uterotonics:** Substances that stimulate uterine contractions or increase uterine tone. Uterotonics include:

- **Oxytocin** (the most commonly used uterotonic drug): Oxytocin is secreted naturally by the posterior pituitary during later pregnancy, labor, and when the baby breastfeeds. Synthetic forms of oxytocin are found in products such as Pitocin<sup>®</sup> and Syntocinon<sup>®</sup>. In moderate doses, oxytocin produces slow, generalized contractions of the muscles of the uterus with full relaxation in between. High doses of oxytocin produce sustained tonic contractions that can be dangerous prior to delivery.
- **Ergot-based compounds** (another class of uterotonic drugs): Methergine<sup>®</sup> (methylergonovine maleate) and Ergometrine (ergometrine maleate) are the ergot preparations used today. They cause tetanic (continuous) contractions of the uterus and may cause or worsen high blood pressure.
- **Syntometrine** (a combination of oxytocin and ergometrine maleate): Syntometrine has both the fast-acting quality of oxytocin and the tetanic contraction action of ergometrine.

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