



# THE ARIF TIMES

Achieving Resilient and Inspiring Families

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## WELCOME TO THE ARIF TIMES!

As you journey through the final weeks of pregnancy, every decision you make can have a huge impact on your baby's health and your birth experience. This edition shines a light on three important but often overlooked aspects of birth preparation: colostrum harvesting, delayed cord clamping and cord blood banking.

These practices are rooted in science and guided by compassion, offering both immediate and long-term benefits for your baby's immunity, development and future health. Whether it is the powerful nutrients in the first drops of colostrum, golden extra moments of blood flow during delayed cord clamping or the potential life-saving gift of stored cord blood —each step is a testament to the beauty and wisdom of the maternal body.

To all mothers and fathers preparing for the arrival of your little one:

Take heart. Labour is not just a test of strength but of surrender, love and trust. It is the beginning of a beautiful new chapter, one that requires courage, patience and faith. Your body is capable. Your baby is blessed to have you.

May this knowledge empower you, and may this journey continue to unfold with gentleness, wisdom and love.

From all of us at ARIF, we're with you—before, during and beyond birth.

# Antenatal Colostrum Harvesting

by Shakira Khaliq

Antenatal colostrum harvesting is the collection of breastmilk called colostrum during pregnancy for use after baby is born.



## Benefits of antenatal colostrum harvesting:

- To reduce risk of low blood sugar levels in babies born to mothers with Gestational Diabetes Mellitus (GDM).
- Mothers anticipating challenges with breastfeeding can provide the harvested colostrum to their baby while mother and baby are learning to overcome the challenges, such as latching with an inverted or short nipple.
- To provide the collected colostrum to the baby if the baby has to be separated from the mother after birth and nursed in the special care or the intensive care unit.
- Starting colostrum collection during pregnancy will help parents gain confidence in certain breastfeeding-related techniques, such as the hand expression technique.



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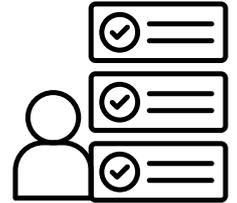
*Log on to <https://www.projectarif.sg> for other Project ARIF Resources.*

## How to perform an antenatal Colostrum Harvesting?

**Before you begin, ensure it is safe for you to express during pregnancy. Colostrum harvesting is typically recommended from 37 weeks of gestation onward.**

1

It is good practice to start with the breast massage technique. Here is a video on the breast massage technique: <https://www.youtube.com/watch?v=jmXFptCBR0g&t=30s>



2

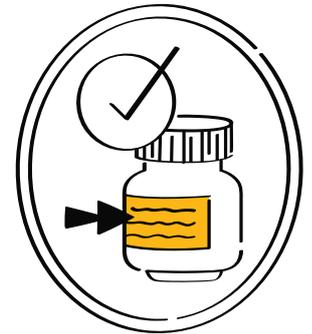
After a breast massage, you may start your attempt at collecting colostrum by using the hand expression technique. The hand expression technique includes positioning your thumb and index finger behind the areola in a 'U' and 'C' shape and compressing to release the colostrum. If there is colostrum, you may collect it in a syringe.

3

Antenatal colostrum harvesting can be done once a day for 10 minutes in the beginning and you may gradually increase it to 3 times a day. It is normal to produce small amounts of colostrum when you first start. It is also normal if you are unable to collect any colostrum at the beginning. Do remember that you can get advice from a lactation consultant should you encounter any difficulty with the procedure.

4

Upon collecting the colostrum, you may place them back in the sleeve of the syringe and paste a sticker with the date and time of collection. It is also important to include your name and last 4 digits of your NRIC number if you are bringing the colostrum to the hospital.



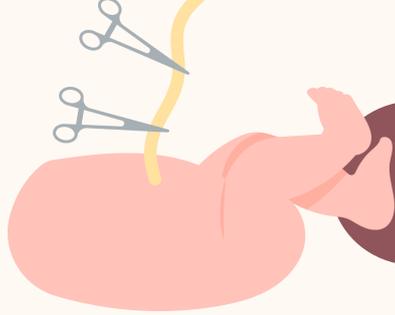
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Keep collected colostrum in the freezer and transport in a cooler box with a frozen ice pack when you are going to the hospital.

It is important to remember that colostrum harvesting during pregnancy **does not replace starting breastfeeding early**. Mothers should continue to prioritise latching on their baby early and breastfeeding regularly even if they have collected colostrum. Lastly, do speak to your doctor or lactation consultant if you are keen to start colostrum harvesting during pregnancy as antenatal colostrum harvesting may be contraindicated for some mothers.



To learn more about antenatal colostrum harvesting, refer to our Project ARIF e-book!



# Delayed Cord Clamping

by Dr Muhammad Nur Dinie bin Abdul Aziz

## What is DCC?

Delayed cord clamping refers to clamping the umbilical cord at least one minute after the delivery of the baby. This is in comparison to immediate cord clamping where the baby's cord is clamped within 30 seconds post-delivery.



Delayed cord clamping, also known as DCC, is a widely studied and recommended procedure internationally.

## Why should we perform DCC?



DCC allows additional blood to transfuse from the placenta to the baby. 1-minute delay in cord clamping leads to additional 80mL of blood, providing the baby with additional 30% more blood volume and up to 60% more red blood cells. This results in improved iron supply.

On the other hand, there is no known adverse effect for mother. DCC does not increase the risk of post-partum hemorrhage, cesarean section or affect the third stage of labour for expectant mothers.

## Who is eligible for DCC?

Both babies born by vaginal delivery or cesarean section can undergo DCC.

Babies who are not suitable for DCC are those who need immediate resuscitation due to low heart rate, poor oxygen readings, abnormalities of babies that requires resuscitation, abnormal placenta, twins sharing the same placenta, or any other reason determined by the specialist. Mothers who have serious conditions such as eclampsia, severe bleeding in third trimester of pregnancy or known maternal infection such as HIV are not suitable too.

## How is DCC done?

During DCC, the baby's breathing effort, tone and colour is observed. The baby will also be kept warmed and stimulated or suctioned if there are oral secretions. The timing of the cord clamping will also be documented.



At any time if the baby does not appear well, or if there is any contra-indication to DCC, or if the doctor/midwife considers that it is in the best interest of the infant to cut the cord, the cord must be clamped and cut immediately. The reason for stopping delayed cord clamping will also be documented.

## Can we lift the baby up to see above the screen during DCC if born by caesarean section?

The baby should be positioned within 10cm above to 10cm below the placenta due to the effect of gravity on the speed of transfusion.

This means babies born after cesarean section should not be held over the screen (for parents to see) because there may be reverse blood flow from the infant to the mother, resulting in decrease in infant blood volume.

## Any risks for DCC?

After DCC, all term babies will undergo routine newborn care. A potential disadvantage of DCC is that it has been associated with a small increased risk of jaundice.

For pre-term babies, bilirubin levels are checked more frequently due to increased risk of jaundice. Babies who are very preterm i.e. between 23-33 weeks will also be placed on a thermal mattress to reduce the risk of hypothermia during DCC.

## What happens after DCC?



After clamping the umbilical cord, the baby can be brought to the mother's chest for skin-to-skin with the mother. If the mother wants to rest or needs to be attended to, the baby will be transferred to the resuscitaire to continue newborn care.

Babies will be monitored closely for high or low temperature and be put on a warmer if needed.

**Baby's cord blood can still be donated after DCC.**

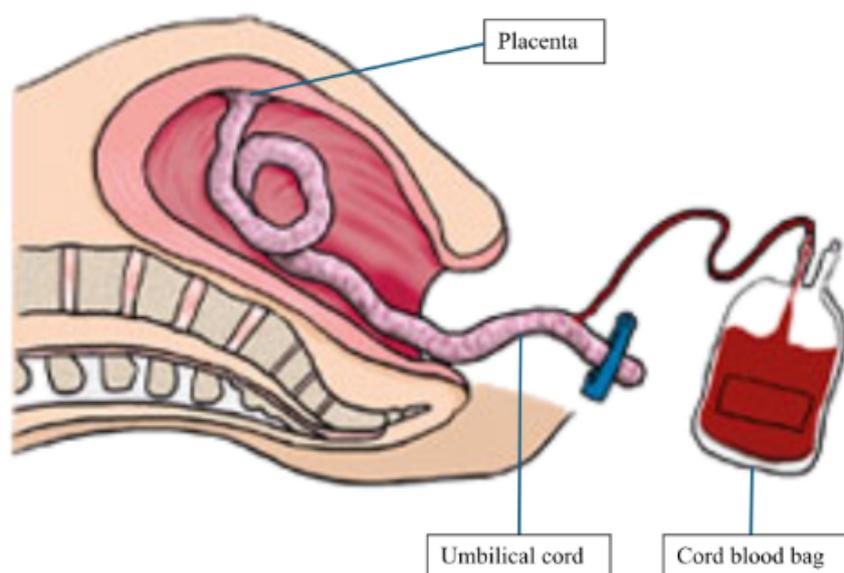
# Cord Blood Donation and Banking: A Gift of Life for the Community

by Dr Ho Xin Yi and Dr Muhammad Ashraf Yusoff



When welcoming the birth of a baby, most parents focus on physical and emotional preparations. There are many important decisions to be made and hence, in antenatal preparations one important decision is often overlooked — whether to donate or bank your baby's cord blood.

## What is Cord Blood and How it is Collected?



Cord blood is the blood that remains in the umbilical cord and placenta after a baby is born and the cord is cut. It is rich in stem cells, which can help treat a range of diseases, including leukemia (blood cancers), anemia (low blood counts), and some genetic disorders.

Collecting cord blood is safe, painless and does not harm the mother or baby. The placenta can still be brought home and buried after the cord blood is collected. If this cord blood is not collected, it will simply be disposed of after delivery of the placenta. Cord blood is therefore a grossly underutilized but valuable resource for medical treatments.

In Singapore, parents can:

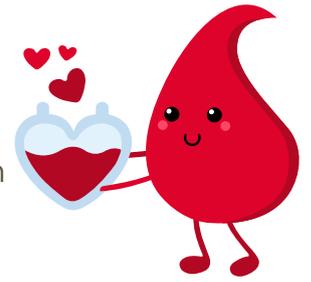
- Donate cord blood for free to our only public cord blood bank the Singapore Cord Blood Bank (SCBB), or
- Store it privately at a fee for their own family's use. This may be useful if there is a known family history of certain medical conditions.

### 1 An Opportunity for Charity and Saving Lives

In Islam, preserving and saving life is a noble act. Allah says in the Qur'an:

*"And whoever saves one life – it is as if he had saved mankind entirely."*

*(Surah Al-Ma'idah, 5:32)*

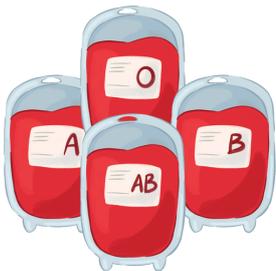


Cord blood can be used to treat patients with life-threatening illnesses. Donating it is a beautiful form of sadaqah jariyah (ongoing charity) that may benefit others long after your child's birth.

### 2 Filling the Gap for the Malay/Muslim Community

There is currently a shortage of Malay/Muslim cord blood donors in Singapore. Since stem cell transplants are more effective when donors share a similar ethnic background, this shortage makes it harder for Malay patients to find a match.

Donating cord blood increases the chances of finding suitable matches within our own community, fulfilling the Islamic principle of mutual help and solidarity (*ta'awun*).



*"Help one another in goodness and piety..."*

*(Surah Al-Ma'idah, 5:2)*

### 3 Permissible in Islam

The Islamic Religious Council of Singapore (MUIS) affirms that cord blood donation and banking is permissible (halal), as long as it does not harm the mother or baby, and it is used for beneficial medical purposes.

In line with the objectives of Islamic law, particularly the protection of life (*hifz al-nafs*), donating or preserving cord blood aligns with Islamic ethics and values.

## The Process is Simple...

1. Register early in pregnancy, ideally before 35 weeks (registration can be done easily electronically)
2. At delivery, the cord blood is collected safely and without affecting the baby or the birthing process.
3. It is then donated or stored based on your decision.

**All hospitals in Singapore including public hospitals such as KK Women's and Children's Hospital (KKH) offer support for cord blood programs.**

## Our Message to Parents..



Dear parents,  
your child's birth is a moment of blessing — and an opportunity to give hope to others. By donating or banking your baby's cord blood, you are fulfilling an Islamic duty of compassion, care, and forward-thinking.

The Prophet Muhammad (peace be upon him) said:  
***“Whoever relieves a believer's distress, Allah will relieve his distress on the Day of Resurrection.”***  
***(Sahih Muslim, Hadith 2699)***

Let this be one of the first good deeds your family performs together.

For more information or to register, visit:  
Singapore Cord Blood Bank – [www.scbb.sg](http://www.scbb.sg)  
May Allah bless your efforts and reward you for every life your decision may help.