The umbilical cord is the unborn baby’s undisputed lifeline. YUMNAH HATTAS looks at the importance of this link to the mother and when is the right time to sever the tie that binds.
According to the World Health Organization (WHO) the umbilical cord is a unique tissue that consists of two arteries and one vein covered by a mucoid connective tissue called Wharton’s jelly and a thin mucous membrane. The placenta provides all sustenance required for foetal growth and removes waste products during pregnancy. Blood flowing through the cord brings nutrients and oxygen to the foetus and carries away carbon dioxide and metabolic wastes. Once the baby has been born until the placenta separates, and while the cord is still pulsating, a small volume of blood may be transfused from the placenta to the newborn. The amount transfused depends on when the cord is cut and the level at which the baby is held in relation to the mother at the time of cord clamping. The cord pulses and when the umbilical vessels are constricted the pulsing stops. However, the vessels are not obliterated, therefore the cord has to be tied or clamped tightly in order to keep the umbilical vessels occluded and prevent bleeding.

**MAKING THE CUT**
Cutting the cord is the act of separating the baby from the birthing mother. This act entails having to cut through the vessels to completely sever the cord. This means that whoever is cutting the cord will be cutting through living tissue and the infant’s blood stream, hence a sterile instrument must be used to prevent infection. The remaining cord stump is then deprived of blood supply and it starts to dry up, turn black and stiffen (dry gangrene). Exposure to air helps with the drying and separation of the stump; however, this can be a good breeding ground for germs. The umbilical vessels are still patent for a few days following birth, thus providing direct access to the bloodstream. The umbilical cord stump is a common means of entry for systemic infection in the newborn infant. Keeping the stump clean and dry is therefore very important if infection is to be prevented.

**CUSTOMS AROUND CORD CLAMPING**
There are differing views as to when the ideal time to clamp the cord is – before or after it has stopped pulsating. Previously, some cultures believed that all the life from the mother that was keeping the baby alive must be drained from the mother before the baby is separated from the placenta. In other words, only when the cord has stopped pulsating could the cord be cut. Other cultures believe in milking the soul back to the baby from the mother, and some even believe that the cord should not touch penis of male infants otherwise they will become sterile. In the event that this were to happen, there are cultural rituals that need to be followed to the letter. One of these practices include that the baby’s penis must come into contact with the mother’s vagina.

According to Zahara Swalehe, a midwife based in Tanzania, and recommendations of the WHO (1999), the umbilical cord can be clamped immediately after birth or later. Late clamping after cord pulsations have ceased is the usual procedure in traditional births, and early clamping is common in medical institutions. The timing of cord clamping may have effects on both mother and infant. Science reveals that although there was some evidence that early clamping reduces the duration of the third stage of labour, there is no significant effect on the incidence of postpartum haemorrhage or bleeding. The combined use of the hormone oxytocin, early cord clamping and controlled cord traction (active management of the third stage of labour) has been shown in some studies to decrease the incidence of postpartum haemorrhage.

Although prophylactic oxytocin is effective in reducing the risk of postpartum haemorrhage, doubts remain about combining it with early cord clamping and controlled cord traction, and about the routine use of active management in healthy low-risk women. Early cord clamping should be avoided in rhesus negative women as it increases the risk of feto-maternal transfusion. However, allowing free bleeding from the placental end of the cord reduces this risk. Latest research indicates that leaving the cord untouched for long as five minutes after birth is beneficial to the baby in that it provides the newborn with as much as a third of its blood volume from its mother’s placenta through the cord. This will reduce the number of infants that suffer from anaemia (iron deficiency) as a result of insufficient haemoglobin, which carries oxygen in the blood. A Swedish study published in the British Medical Journal (2011) found that infants who had had delayed cord clamping had increased iron stores at four months and were less likely to be anaemic than infants who had been clamped immediately. The WHO is now encouraging the practice of delaying cord clamping.
The decision to store their newborn’s stem cells has found increasing popularity amongst parents over the last several years. Stem cell storage is the process whereby a baby’s umbilical cord blood and tissue are “banked” immediately at birth. These cells are a kind of “health insurance” offering the possibility to develop potentially life-saving treatment for approximately 70 diseases, including leukaemia, certain cancers, metabolic and immunological disorders. The number of diseases and disorders which can be treated is growing as research becomes more advanced.

What Are Stem Cells?
Your baby’s umbilical cord blood and tissue contain cells that are very similar to the very first cell that started their life at conception. These cells are pure and free from ageing or other environmental factors, and they make the perfect “starting point” for treatments to be developed. Because your baby’s umbilical cord is full of these cells, banking this blood and tissue is a once-in-a-lifetime opportunity to store these cells. This can be done with virtually no moral, ethical or religious concerns as the placenta and umbilical cord are usually discarded after birth. Once stored, these stem cells are a perfect match for your baby and provide a very good match for siblings and parents.

For more information on investing in your child’s future, contact:

- CRYO-SAVE – 0860 783 6235, e-mail info@cryo-save.co.za or visit www.cryo-save.co.za
- NETCELLS – 0861 638 2357, e-mail info@netcells.co.za or visit www.netcells.co.za

Involving Dads

For many African men, cutting the cord is a new phenomenon, almost a paradigm shift, and so when done, often it is not known in fear that the community might condemn them. This was revealed by Gershon Kapalaulan, an Agriculturist and Social activist in Zambia. John Hlope, a former high school teacher from Swaziland, says that in his culture men should not see the vagina of their birthing wives in fear that as it can be very traumatising for the men and can affect the support the men provides the women later on. However, both Gershon and John feel that fathers/partners should be present at the birth because then they are able to support their wives/partners through what can be a very traumatic experience.

Yes, dads can cut the cord! “I cut all of my four children’s cords at birth and we waited for two minutes before we cut it!” Janne Norstedt, an International consultant on Sexuality Education and Information, shares. He said that he waited a minute or two before it stopped pulsing, and then cut the cord. His wife, Julia, says it was the strangest moment when her husband offered to cut the baby’s cord of their unborn child. He dropped the comment while they were discussing the birth plan Julia had tried to discuss with him on three previous occasions. She had been quite taken aback when he made this request, as it had been so hard to get him to plan for the birth that she did not even think to mention the cutting of the cord. He just moved straight to the cord and from then their birth plan discussion took on a very interesting angle. Janne explains that he clearly understood the risks involved and that is why it is important to talk about cutting the cord when working out your birthing plan. In the event that the birthing mother is unable to talk on her own behalf, she will have someone who can express her wishes for her.

Ultimately, it is your choice as a parent to decide what you want at the moment of birth and who will be there to assist you in ensuring that your wishes are carried out. Regardless of where you have your baby, your decision about cord clamping remains just that – yours. Make it part of your birth plan. Discuss it with your birthing partner and take comfort in knowing that someone will be there to help you carry it out.

Banking Baby’s Cord Blood

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It’s also a link to life after birth.

Your baby’s umbilical cord tissue and blood stem cells can be frozen at birth and stored for future potential life-saving treatment. Netcells is the only South African storage facility with international accreditation, giving you the assurance of acceptance by transplant centres across the globe.
CARING FOR THE UMBILICAL CORD
When the cut has been made to separate your baby from you, the blood vessels in the remaining stump are still potent, leaving a potential breeding ground for infection. Proper care must be taken so that the stump will dry and fall off within two weeks after birth. Zahara Swalehe, a midwife based in Tanzania, suggests the following steps to caring for your baby’s umbilical cord stump:

1. **Keep the stump clean.** Previously it was recommended to swab the stump with rubbing alcohol after every diaper change. Recently, that has changed and mothers are advised to rather keep the stump dry. If the stump becomes dirty or sticky, it should be cleaned with plain water and then dried by holding a clean, absorbent cloth around the stump or fanning it with a piece of paper.

2. **Keep the stump dry.** Expose the stump to air to help dry out the base. Keep the front of your baby’s diaper folded down to avoid covering the stump. Keep the cord above the nappy (to prevent chafing as well as to keep it dry) and dress your baby in a diaper and T-shirt to improve air circulation. Try to ensure the cord and clamp is not rubbing on your baby’s skin, and use loose fitting tops and baby grows until the cord drops off.

3. **Stick with sponge baths.** Sponge baths are most practical during the healing process. When the stump falls off, you can bathe your baby in a baby tub or sink.

4. **Let the stump fall off on its own.** Resist the temptation to pull off the stump yourself, even if it’s hanging on by only a thread.

5. **Avoid routine cleansing of the cord.**

SIGNS OF INFECTION
During the healing process, it’s normal to see a little crust or dried blood near the stump. Contact your paediatrician if your baby develops a fever or if the umbilical area:

- Appears red and swollen around the cord
- Continues to bleed
- Oozes yellowish pus
- Produces a foul-smelling discharge

IF THE STUMP NEEDS CLEANSING
If the cord becomes contaminated with “diaper do” it will need to be cleansed. Here’s how:

- Use cool, boiled water.
- Dip a cotton wool ball in the water and gently wipe the whole area around the stump, using a new cotton wool ball every time.
- NEVER use a dry cotton wool ball as these can leave fibres which can cause irritation to your baby’s delicate skin and in some cases lead to infection.

innie or outie?
Old wives’ tales suggest taping a coin over the navel after the stump has fallen off to prevent an ‘outie’ from forming. The truth is, there is no way of predicting whether the belly button will be an innie or an outie!