

HALLO MAMA AND PAPA!

PREPARING FOR MY BABY'S ARRIVAL
MY PREGNANCY AND BIRTHING EXPERIENCE





CONGRATULATIONS ON YOUR PREGNANCY



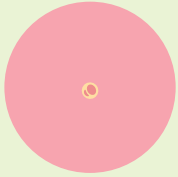
The Limpopo Department of Health Mother and Baby Programme aims to ensure that you have a memorable pregnancy and birthing experience. You are encouraged to use this 'Mamma and Papa' booklet during this special chapter in your life to diarise memorable occasions and to find informative bits of detail about the development of your baby and the process of bringing him or her into this world.

We invite you to register a Birth Companion to support you during this beautiful journey. The registration forms are available from your health care worker. You and your Birth Companion will be provided with information on how to enjoy a healthy pregnancy and birthing experience.

Remember that this is the start of your baby's own life journey so give him or her the best start.

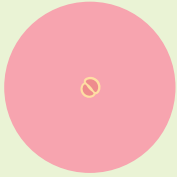
Take good care of yourself and your baby!

EMBRYONIC PERIOD



3 WEEKS

The rudiments of the respiratory, digestive, circulatory, nervous and excretory systems are formed. The heartbeat starts.



4 WEEKS

The rudiments of the intestine, liver, kidney and lung are formed. The muscular system and the spine are formed. The formation of the neural tube is completed.



5 WEEKS

Organs and systems start to form, as do parts of the brain. The umbilical cord appears. The upper lip and nasal cavity are formed, as are the rudiments of the extremities and nails.



6 WEEKS

The brain and its divisions form. The formation of the placenta and the muscles of the face begin. The rudiments of the hands and fingers form.



7 WEEKS

The uteroplacental circulation starts. The upper limbs are developed, the eyes and rudiments of the auricles start to form.



8 WEEKS

The heart, lungs, brain, urinary system and reproductive system are formed. Eyes, eyelids, nose, ears and the formation of the lips are completed.



FETAL PERIOD



14 WEEKS

The first hair appears and bones become more robust. Changes take place in the genital organs, the prostate gland forms in boys and ovaries migrate to the pelvic cavity in girls.



18 WEEKS

The immune system is created. The modes of sleep and wakefulness begin to take effect. The baby has the ability to distinguish sounds and see the surrounding world.



24 WEEKS

The bone marrow and spleen start to produce blood cells. The taste buds are developed. The face is fully formed, including eyelashes and eyebrows.



32 WEEKS

The folds start to disappear. The hands and feet become plump. The skin ceases to be red. The endocrine system begins to secrete hormones. The lungs accumulate surfactant.



36 WEEKS

Subcutaneous fat develops. The bones of the skull remain soft with gaps (fontanelles). The baby experiences a continued weight gain and growth.



39 WEEKS

The three-dimensional image can be perceived by the brain. The eye focuses on the distance of 30cm. The fuzz has disappeared, the baby has hair on its head. The baby is ready for birth.



THE MARVELLOUS JOURNEY FROM CONCEPTION TO BIRTH...

When the sperm meets the egg, your baby's journey begins. It is a miraculous event where a microscopic sperm and egg fuse and grow into a human being over the period of nine months. Pregnancy involves various stages, starting with conception and ending with child birth.



STAGE 1: - CONCEPTION

This stage starts with ovulation which is when the ovary releases a mature egg which travels down the fallopian tube to meet your partner/sperm donor's sperm and is fertilised. Sometimes two eggs would get fertilized through two different sperm cells of your partner/sperm donor while conceiving. This might result in fraternal twins. Such babies can look different from each other and might even be of different sexes. If a single fertilised egg splits into two, which is a rare occasion, you will be blessed with identical twins of the same sex. In this case, your babies would share the same sperm, egg and DNA.



STAGE 2: - FIRST TRIMESTER (ROUGHLY WEEKS 1-12)

What's happening to baby?

The first trimester is essentially the first three months of your pregnancy.

The second month of this trimester has a very important role in deciding the development of your baby. Your baby will develop a heartbeat during this stage, never to stop for a lifetime. The lower and upper limbs begin their development. Vital organs such as the lungs, stomach and brain of your baby will start to form. Joints of your baby would also be formed at this stage. During the third month of your pregnancy, your baby's bones become much harder. Formation of genitalia, eyes and ears also occurs at this stage. Your health care provider will use a special instrument to help you hear your baby's heartbeat during this stage.

Hearing baby's heartbeat
for the first time is
miraculous.



What's happening to mommy?

You may experience morning sickness/nausea with or without vomiting, breast tenderness with darkening of the area around your nipple, headaches, fatigue, increased urination, cramps, etc. during this stage. You may also experience unexpected mood changes - this is normal. Talk about your feelings with your friends, family and co-workers. Eat regularly and often, and stay physically active.

FIRST TRIMESTER





STAGE 3: - SECOND TRIMESTER (ROUGHLY WEEKS 13-28)

What's happening to baby?

The second trimester marks the fourth to the sixth month of your pregnancy. No new organs will be formed at this stage. Your baby's taste buds, eyelashes, eyebrows etc. will be formed during this stage of pregnancy. Your baby will begin the breathing practice to prepare for childbirth.

What's happening to mommy?

This is the most enjoyable trimester as most of the uncomfortable systems of the first trimester have subsided or even disappeared. Your belly and your breasts become bigger. Although your baby begins to move from the fourth month, you might not notice it until the end of your second trimester.

SECOND TRIMESTER





You may be feeling excited or impatient to finally meet your baby.



STAGE 4: - THIRD TRIMESTER (ROUGHLY WEEKS 29-40)

What's happening to baby?

The third and last trimester are the seventh to the ninth month of your pregnancy, you are on home stretch! Your baby will now be able to hear your heartbeat and baby will grow eyelashes during this phase. There won't be enough space inside the womb for your baby to move around freely as in the previous trimesters. This is because your baby would have gained enough body weight and would have grown considerably in length. During the 8th month of your pregnancy, the lanugo or the fine hair growth on your baby's body would begin to fall.

What's happening to mommy?

In the meantime, your body is going through significant changes. You may be finding it increasingly difficult to sleep, haemorrhoids, heart burn, shortness of breath, difficulty sleeping, increased need to pee, and increased Braxton Hicks Contractions. You may also have feelings of doubt or fear about labour. Talk with your health care provider about your concerns and plans for labour. Also, attending antenatal classes, selecting a birth companion and learning about labour and birth so you know your options will help ease those feelings as well.

THIRD TRIMESTER





Once you suspect that labour has begun, DO NOT push, even if you really feel like pushing.



STAGE 5: - LABOUR AND DELIVERY

As of week 37, your baby is fully formed and growing well, and just waiting for spontaneous labour to begin. A baby born from 37 weeks is considered full term and usually has no difficulties at or after birth. But remember, every baby develops at its own pace, even in the womb. So some pregnancies may even continue to 42 weeks.

How will I know that I'm in labour

There are a number of signs to look out for that will indicate that your baby is ready to make its debut into the world. The following are the most prominent signs that labour is eminent:

- Lower back and/or abdominal pain that comes and goes and is progressive over time
- “Show” – light pinkish mucous discharge
- Breaking of water

Go to the health facility that you and your health care worker have decided where your baby will be welcomed into this world.

WHAT TO PACK FOR MY TRIP TO THE HEALTH FACILITY TO BRING MY BABY INTO THIS WORLD

Remember, you should not wait for labour to start before packing your hospital bag. Make sure your hospital bag is packed by week 36, to avoid forgetting important things to pack when those labour pains begin.

FOR MOMMY DURING LABOUR

- T-shirt or night gown “nighty”
- Dressing gown
- Socks
- Push-in slippers
- Snacks and water
- Sport Energy drink (Energade/ Powerade)
- Toiletries
- Plastic or disposable cup
- Lip balm
- Face cloth
- Aqueous cream for massaging hands and feet

FOR THE BIRTH COMPANION

- Comfortable clothes and shoes (you are going to work!)
- Toiletries
- Snacks and non-alcoholic drinks
- Charged cellphone (with a camera would be great!)

FOR BABY

- One long sleeve baby vest
- One outfit for going home (one piece/two piece baby grow)
- Receiving blanket
- Warm blanket
- Nappies
- One pair of socks or booties
- Warm baby hat
- Kangaroo Mother Care (KMC) wrap



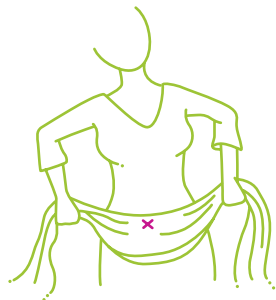
WHAT IS A KANGAROO MOTHER CARE (KMC) WRAP?

Let's first start with explaining what KMC is and why it's so good for you, your partner, baby and the whole family that cares for baby. Kangaroo Mother Care or Kangaroo Father Care or Kangaroo Granny Care or Kangaroo Grandpa Care, is when baby is carried skin-to-skin against your chest continuously from the time baby is born. We now have wonderful things called KMC wraps which come in different styles and materials. It doesn't matter which KMC wrap you use, as long as it can hold baby against your chest safely and comfortably for both you and baby.

KMC is very important to keep your baby's temperature just right! Your baby lives inside your womb where it is nice and warm for an average of 9 months. Once baby is out of the nice warm womb, they will start getting cold. The best way to make sure that baby's temperature remains just right is by placing baby directly on your bare chest so that your body can warm baby's body up to just the right temperature. Not too hot and not too cold. Putting baby against your chest from the time they are born also promotes bonding between you and baby. Remember, baby has been living inside your womb hearing your heart beat the entire time. The familiar beat of your heart after they leave the womb is very calming and reassuring for baby who is now exposed to a completely new and noisy world to the one he or she has known since conception. They feel safe and secure against your chest.

HOW TO TIE A KANGAROO MOTHER CARE WRAP:

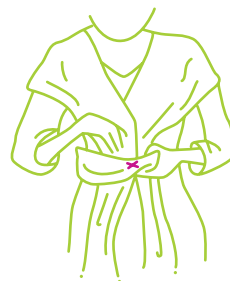
To make your own KMC baby wrap, use a 4m long x 0.5m wide strip of stretchy t-shirt type material. Make a permanent mark, such as sewing a small cross into the material, in the centre of one of the long edges to guide you when tying the wrap around your body. See instruction diagrams below.



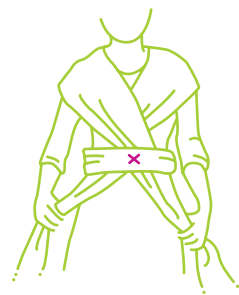
- 1** Position the fabric at your waist, with the cross mark top and centre.



- 2** Pull the two ends across your waist over your shoulders, making a cross at the back.



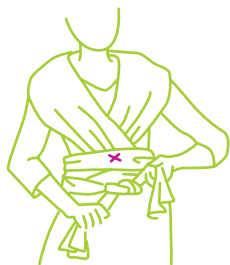
- 3** Tuck the two ends in under the waist band in the front and pull through.



- 4** Cross them over in front to create a cross over your chest.



- 5** Wrap around your waist and cross at the back.



- 6** Securely tie the ends together in the front.



- 7** Baby sits in the cross over. Put one leg and arm in at a time.



- 8** Stretch the fabric over baby's back and bum



- 9** Stretch the waist band up over baby as shown by the arrow.

SKIN-TO-SKIN

*Baby's bare chest is against mommy's bare chest. It is important that baby's skin is against mommy's skin. That is why it is called skin-to-skin. Baby can wear a nappy and **MUST** wear a cap for warmth. Skin-to-skin should start at birth, but is helpful at any time. It should ideally be continuous day and night, but even shorter periods are still helpful.*

EXCLUSIVE BREASTFEEDING

For an average mother, direct suckling by the baby from the breasts is all that is needed to feed baby. For very premature babies, expressing milk and feeding baby with a cup is all that's needed to feed baby.



GUESS WHAT?

Putting baby against your chest also places them close to their food! They can then smell their breastmilk up close and personal and this encourages them to go to your breast to feed. The more baby feeds, the more breastmilk you produce. Remember, your breasts make milk according to what baby needs. You have the best Breastaurant baby will need for the next 6 months and more!



Prepare yourself for a beautiful and memorable journey to bringing your precious bundle of joy into this world! Touch let's go!!!

WHAT DOES MY BIRTH COMPANION DO?

By now, you should have registered your birth companion with your health facility using the Birth Companion Registration Form given to you by your health care provider during your antenatal care visits.

If you have to change your birth companion after they have been registered with your health facility, please inform your health care provider and register your new birth companion using the Birth Companion Registration Form, including attaching a copy of your new birth companion's ID. It is also very important that your new birth companion has attended the antenatal classes with you, even if not all of them, he/she must be very familiar with the dos and don'ts of being a birth companion in order to provide you with the best and most appropriate support in labour and when you give birth.

Please make sure that you and especially your birth companion have read the Birth Companion Registration Form, fully understand what your Birth Companion's role is, and have asked your health care provider any questions that you may have regarding your Birth Companion's role during labour and birth. Always remember, your Birth Companion is there to support you and make sure that you have a memorable birthing experience. Your Birth Companion should never interfere with the work of health care providers as this will place both you and your baby's health in danger.



MY PREGNANCY JOURNAL



My name is _____.

I found out that I was pregnant on _____, when I was _____ weeks pregnant.

My due date is: _____

I can also calculate my own due date:

First day of my Last Menstrual Cycle (LMC) is _____

PLUS nine months _____

PLUS seven days _____

For example:

LMC 10 May + nine months = 10 February + seven days = 17 February

FAMILY TREE

MATERNAL GRANDPARENTS

Rakgolo ke _____

Nkgono ke _____

PATERNAL GRANDPARENTS

Rakgolo ke _____

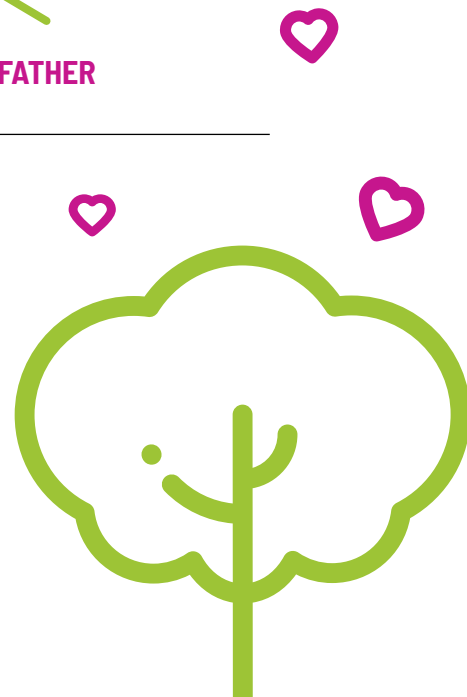
Nkgono ke _____

MOTHER

FATHER

SIBLINGS

BABY





How did I feel when I found out I was pregnant?

WEEK 1

WEEK 2

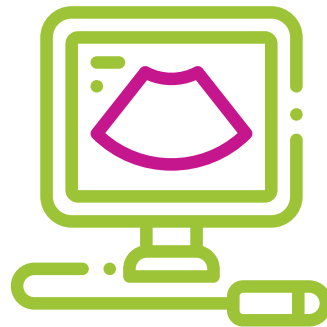
WEEK 3

WEEK 4

WEEK 5

WEEK 6

WEEK 7





WEEK 8

WEEK 9

WEEK 10

WEEK 11

WEEK 12

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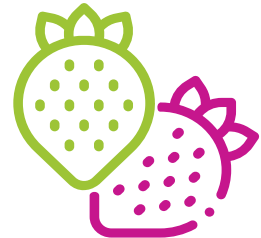


STAYING HEALTHY DURING PREGNANCY

There is never a more important time to stay healthy than during your pregnancy. You are now not only responsible for your own wellbeing and health, but also for that of your baby. Your body needs more energy and nutrients, which means you need to eat more than the normal quantity but definitely not to eat for two!

Constipation and haemorrhoids are common in pregnancy. To avoid them, make sure you drink lots of water and include fibre in your diet. Good sources of fibre are vegetables and fruit, brans, cereals, brown rice.

To make sure that your glucose level remains constant and minimise the nausea that accompanies pregnancy, rather eat 6 small meals throughout the day instead of 3 big meals. Many women crave spicy food when pregnant, but try to avoid these since they cause heartburn, and will make your heartburn worse if you already suffer from heartburn.





- What you eat and drink during pregnancy is your baby's main source of nourishment
- A healthy balanced diet during pregnancy will help with your baby's brain development
- Staying physically healthy during pregnancy through moderate and fun exercise, will help you cope better with labour and birth



It is very important to include iron in your diet, which is needed for forming red blood cells. You can increase your iron intake by including red meat, pork, liver, eggs, spinach, dried beans and dried fruit in your diet. Also make sure that you get lots of calcium in your diet because calcium is needed to form your baby's teeth and bones. If your diet doesn't have enough calcium, it will be taken from your bones for your baby. Food that is rich in calcium include milk, yogurt, cheese, dark green leafy vegetables, nuts and tinned fish with bones.



CIGARETTE SMOKING DURING PREGNANCY

Cigarette smoke contains over 4000 harmful properties, including 60 properties that cause cancer. The two properties in cigarette smoke that are very dangerous and harmful to your baby when you are pregnant and after your baby is born are carbon monoxide and nicotine. Far more nicotine crosses the placenta and into the amniotic fluid which feeds your baby, than what enters you as the mom. Nicotine also narrows the blood vessels to the placenta, decreasing the blood flow to the placenta, which kills the placenta. Remember the placenta is your baby's life support! That is why babies that are exposed to cigarette smoke usually are born premature, miscarry or are born with a low birth weight and potential life threatening conditions. The risk of Sudden Infant Death Syndrome (SIDS), colic, asthma, respiratory infections and obesity are higher in infants whose mothers smoke in pregnancy.

If you smoke and are finding it difficult to stop once you have found out that you are pregnant, ask your health care provider to refer you to professionals who will be able to support you to stop smoking so that you and your precious baby are healthy throughout your pregnancy and after birth.

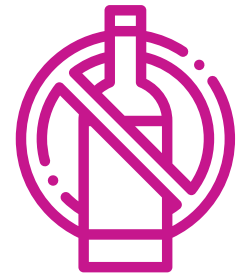




DRINKING ALCOHOL DURING PREGNANCY

Alcohol consumption during pregnancy is associated with Foetal Alcohol Syndrome (FAS). When you drink whilst you are pregnant, the alcohol easily passes across the placenta to your baby, and it is far more concentrated in your baby's system than in your own. This may result in your baby having FAS. Babies/children with FAS may have problems with their vision, hearing, memory, attention span, and abilities to learn and communicate. There is no cure for FAS. It is best that pregnant women do not consume any alcohol when they are pregnant to prevent their baby having FAS.

If you consume alcohol and are finding it difficult to stop drinking once you have found out that you are pregnant, ask your service provider to refer you to professionals who will be able to support you to stop drinking alcohol so that you and your precious baby are healthy throughout your pregnancy and after birth.



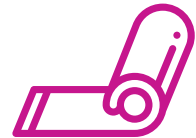


EXERCISING DURING PREGNANCY

Exercise does wonders for you and your baby when you are pregnant! It boosts your mood, improves sleep and reduces aches and pains. It also prepares you for the big day when you have to birth your baby by strengthening your muscles and giving you stamina/endurance to make it through labour and birth.

Research also shows that exercising during pregnancy may lower the risk of developing gestational diabetes and preeclampsia.

If you have already been diagnosed with gestational diabetes, exercise can help you manage the condition and prevent complications. Please do not try to become the next top athlete during your pregnancy! You are not training for a race or competition!





WHAT IS PREECLAMPSIA?

In simple terms, preeclampsia is high blood pressure in a pregnant woman, caused by her pregnancy. Preeclampsia causes the blood vessels to constrict, resulting in high blood pressure and a reduced blood flow that can affect organs in the body, including the liver, kidneys, and brain. These changes can cause small blood vessels to “leak” fluid into tissues, resulting in swelling of the hands and feet (edema). And when these tiny blood vessels in the kidneys leak, protein from the bloodstream spills into urine. (It’s normal to have a small amount of protein in your urine, but more than a little bit can signal a problem.)

When less blood flows to the uterus, it can cause problems for a baby, such as poor growth, too little amniotic fluid, and placental abruption (when the placenta separates from the uterine wall before delivery). In addition, a baby may suffer the effects of prematurity if early delivery is needed to protect the mother’s health and prevent stillbirth.

WHAT IS GESTATIONAL DIABETES?

When you eat, your digestive system breaks down most of the food into a sugar called glucose. Glucose enters your bloodstream so your cells can use it as fuel. With the help of insulin (a hormone made by your pancreas), muscle, fat, and other cells absorb glucose from your blood.

But if your body doesn’t produce enough insulin, or if the cells have a problem responding to it, too much glucose remains in your blood instead of moving into cells and getting converted to energy.

When you’re pregnant, your body naturally becomes more resistant to insulin so that more glucose is available to nourish your baby. For most moms-to-be, this isn’t a problem: When your body needs additional insulin to process excess glucose in blood, the pancreas secretes more.

But if the pancreas can’t keep up with the increased demand for insulin during pregnancy, blood sugar levels rise too high because the cells aren’t using the glucose. This results in gestational diabetes. Unlike other types of diabetes, gestational diabetes isn’t permanent. Once a baby is born, blood sugar will most likely return to normal quickly.



HIV AND OTHER INFECTIONS

Being HIV positive and pregnant doesn't necessarily mean your baby will get infected too. Here's what you need to know to reduce the chances of your baby getting infected.

- Take an HIV test immediately when you find out you are pregnant. It's scary to take a test but it's very important to know your status, for both you and your baby – it can save you and your baby's life
- If you test positive for HIV, make sure you start taking your ARVs/treatment and adhere to your treatment all the time. It is very important not to default so ask your health care provider to put you in touch with a support group that will help you to take your treatment as you should.
- Follow a healthy eating plan, treat any infections you may have and follow a gentle exercise routine.
- It is best to exclusively breastfeed your baby once you are on treatment and you are virally suppressed

Some of the other most common infections in pregnancy are other STIs and Urinary Tract Infection (UTI). If untreated, they will be harmful to you and your baby.

DANGER SIGNS I NEED TO KNOW

Please go to your nearest clinic and inform your health care provider when you have the following symptoms during pregnancy:



HEAVY BLEEDING



HIGH TEMPERATURE



PALE PALMS, EYES, AND TONGUE



WATER BREAKING



SWOLLEN HANDS AND FEET



EPILEPTIC FIT



HEADACHE





ACKNOWLEDGEMENTS

This pregnancy guide was developed by the University of Limpopo Trust for the Limpopo Department of Health's Maternal Newborn Child Women's Health and Nutrition (MNCWH&N) Directorate in 2018. Although the manual is generic, it draws on various existing resources and publications.

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