Giving birth at Máxima MC

Pregnancy, giving birth and the first few weeks with your new baby are such a special and exciting time. As we want you and your partner to feel confident entering this new chapter, we've carefully put together this leaflet.

The information in this leaflet will help prepare you for your conversation with your midwifery practice about giving birth and the first few weeks after. That way, you know what to expect, and you are aware of the choices available to you.

If you have any questions, or if something is not entirely clear, feel free to let our care team know. We're happy to help at any time.

Where we refer to 'you' in this leaflet, this also refers to 'you as a couple' or 'you and your partner' — whichever suits in your situation.

Our vision on caring for you while you give birth

Máxima MC (MMC) operates in line with the Family Integrated Care principle. This means that the mother and child are at the centre of everything we do. If medically justified, you will stay together 24 hours a day. Our team is committed to achieving the best possible outcomes for both mother and baby, throughout your pregnancy and delivery.

On top of that, it is important to us that you only have positive memories of giving birth. Clear and open communication plays a major role in this.
When you are admitted to hospital, we will discuss the following with you and your partner:

- why you have been admitted,
- what it is we think you need,
- and why we recommend a certain treatment.

We do so for every new test and every new treatment, so that you are fully on board with every step of the decision-making process. We will not carry out any treatment without your consent. If you have any questions, or if something is not clear, feel free to ask. We're happy to run you through the details again or explain things in a different way if that would help.

If you feel uncomfortable with anything, such as something we're proposing to do or a certain member of our care team, please let us know, so we can sit down together to explore what's needed to make you feel safe and heard.

The information in this leaflet is of a general nature and is meant to give you an idea of the care and information that you can expect. Other advice or procedures may apply depending on your situation. As such, this brochure only serves as an addition to the specific information from your specialist or practitioner.

Practical information

Important telephone numbers

Gynaecology Outpatient Clinic – route 001	+31 40 888 83 80
Maternity suites/emergencies – route 105	+31 40 888 95 51
Obstetric High Care – route 116	+31 40 888 93 00

Address

Máxima MC – Woman-Mother-Child Centre
De Run 4600
5504 DB Veldhoven

MijnMMC

Following your first appointment, we'll give you access to your personal MijnMMC page, where you can view your care pathway and access information leaflets for each trimester. Simply open the 'Midwifery' appointment, then click 'All leaflets'.

Visiting arrangements

Our arrangements for visitors may change from time to time. We recommend that you visit our website or ask the nursing team to stay up to date with the latest rules for visitors. Immediate family are always welcome!

Students and trainee doctors

MMC is a teaching hospital. During checkups and labour, you may encounter students (nurses, midwives or trainee doctors). These students are always working under supervision. Feel free to let us know if you would prefer not to have students involved in your care. You may also encounter doctors training to be gynaecologists or junior doctors.

Things you can take care of in advance

Maternity care

It is a good idea to register with a maternity centre or maternity care agency early on. Please make sure you do so before the 12th week of your pregnancy. Ask your health insurance provider for details of the centres/agencies they work with. You may be entitled to a maternity pack. If so, this will be sent to your home address during your pregnancy.

First-line midwife

Even if MMC is guiding you through all aspects of your pregnancy, it is important that you register with a midwifery practice near you. Once you've given birth, this midwife will handle your home care during the first few weeks with your new baby. They are available 24/7 if you have any questions or concerns.

In 2021, around 62% of first-line pregnancies were referred to the hospital. In this case, you'll be referred back to your own midwife once you've given birth

Preparing for childbirth

If you are giving birth at MMC, there are a number of things that you can or need to arrange in advance.

What to bring

Make sure you are well prepared and have your hospital bag packed and ready at home so you can bring it with when you come to MMC to give birth. Please pack the following:

For yourself

- Proof of identity
- Any telephone numbers you want to keep handy
- Camera
- Toiletries
- Comfortable clothing
- Pyjamas or bathrobe
- Warm socks or slippers
- Underwear
- A two-euro coin for a wheelchair
- Breastfeeding cushion (if you have one)

For your baby

- Baby clothes such as a hat, romper and bodysuit. Newborns are usually around size 50-56.
- Wrap blanket
- A sterilised bottle if you wish to feed formula
- Carrier (MaxiCosi)

Your partner can stay overnight during your time at the maternity suite. As such, it is a good idea for your partner to have an overnight bag ready too, with comfortable clothing and slippers, if necessary.

Pregnant together

We have developed a special website to prepare you for giving birth. This site has all the information you need about pregnancy, delivery at the Woman-Mother-Child Centre and the pain relief options, as well as the period after childbirth and how to feed the baby. You can also take a tour of our lovely maternity suites in the form of an interactive video.

When to call us

Please contact the Woman-Mother-Child Centre at MMC in the following situations.

First trimester (= up to the 16th week of your pregnancy)

- **Bleeding**
  Vaginal bleeding at the start of the pregnancy is fairly common. Even so, you need to contact us every time you encounter any bleeding.

- **Nausea and vomiting**
  This is a common symptom you may encounter in the first trimester of your pregnancy. If you experience persistent nausea or repeated vomiting throughout the day, preventing you from eating and/or drinking properly, or if you feel weak or dizzy, please contact us.
- **Loss of fluid**
  Loss of fluid can be a sign that your waters have broken. Regardless of the colour of the fluid, please contact us if you feel like your waters may have broken.

Second and third trimester (16th to 37th week of pregnancy)

- **Abdominal pain and/or contractions**
  Call us if you experience regular abdominal pain every ten minutes or more that doesn't go away when you rest.
- **Vaginal bleeding**
  Bright red vaginal bleeding is always a reason to call us straightaway.
- **Mucous plug**
  It is normal to lose your mucous plug around your due date (mucous discharge, sometimes with a trace of blood). You do not need to call us when this happens. Losing your mucous plug is also not a sign that you're about to go into labour.
- **Loss of amniotic fluid**
  Please contact us if you feel like your waters may have broken. Your amniotic fluid may be clear-coloured (colourless/cloudy water with white flakes, sometimes a little pinkish), brown or green (this may be a sign that your baby has had a bowel movement in your amniotic fluid). No matter which colour your amniotic fluid is; we would like you to call us.
- **Baby moving less than usual**
  It is important to watch out for your baby's patterns of movement. Every child moves in its own way. These patterns may change up to the 24th week of your pregnancy. After that, babies develop a specific pattern of movement, and it is important that you familiarise yourself with this. Please contact us if you have any doubt about your baby's movement.
- **Symptoms indicative of high blood pressure**
  If you experience headaches, dizziness, seeing stars, nausea, vomiting, sudden fluid retention or a feeling of tightness around your upper abdomen, please call us.
- **Itchiness**
  It is normal to experience some mild itchiness on your abdomen during pregnancy. If you experience itchiness without any visible skin issues on the palms of your hand, soles of your feet, behind your ears or across your entire body, please contact us.
- **Pain while urinating**
  Pain while urinating may mean you have a urinary tract infection, which leaves you at a higher risk of premature birth.

Around your due date after 37 weeks of pregnancy
If you are having your first child, please contact us when your contractions (tightness and pain in your abdomen) start occurring every four minutes (or more frequently) over a period of one hour or 90 minutes, lasting one minute each.
If you have given birth before, contact us when your contractions have been coming every five minutes or less over a period of an hour, or when you are experiencing unbearable pain at home.
Of course, you should contact us in case of all other symptoms listed above too.

If you are unsure, if you are worried or if you feel you need some advice about contractions and/or amniotic fluid loss, please do not hesitate to call. We are available 24/7.

Telephone numbers

- **Outpatient Clinic +31 40 888 83 80**
  Available on working days between 08:30 and 17:00.

- **Emergencies +31 40 888 95 51**
  Evenings, nights and weekends.
  You should also call this number if you are having contractions, if your waters have broken or if you experience blood loss.

Our maternity suites

Our maternity suites are located in the Woman-Mother-Child Centre at MMC on the first floor (route 105). You can reach this unit via the main entrance, or during the day, via the side entrance to the Woman-Mother-Child Centre.
If you are calling us with pregnancy symptoms or symptoms indicating you might be about to go into labour, we will ask you to come to the maternity suites. If you need to go elsewhere, we will tell you over the phone. Please note that we will not visit you at home like the first-line midwife does.

We recommend that you practice the route you need to take to get to MMC before you are actually about to go into labour. Doing so can help ease any concerns during your drive to the hospital. You are responsible for arranging transport to come to the hospital in case of symptoms or when you go into labour, even if you do not have your own means of transport. Please let us know during your pregnancy if you have any transport issues that you cannot resolve yourself.

Arrival at the hospital

You will be greeted by one of the nurses when you arrive at the hospital. We use a CTG device (a heartbeat monitor) to help us monitor the baby. We will connect this as soon as you arrive, as it will give us an indication of the baby's condition. The CTG can be connected wirelessly, so that you're free to move. The CTG device is an external monitor that uses two straps around your abdomen. One button records any contractions, and the other button records your baby's heartbeat. You're free to have a bath or shower while wearing the device.

Who will guide you through childbirth?

When you come to the hospital to give birth, several people will look after you. To ensure you can enjoy peace and quiet while you're in labour, as few people as possible will be involved.
A doctor (who may or may not be in training to become a gynaecologist) and a midwife are on duty together during the day, evening, or night. They will share any care between them. The doctor (who may or may not be in training to become a gynaecologist) and midwife will care for you together with the nurse. The hospital uses an eight-hour shift system, which means that the team on duty may change during your stay.

The gynaecologist has final responsibility. They will always be present in the background, but will not necessarily attend every birth. However, a gynaecologist will always be available. Our gynaecologists also operate on a shift system, so the gynaecologist on duty while you're in labour may not be the gynaecologist you usually see at the outpatient clinic.

Giving birth

There are several ways in which you can give birth, and there are several ways the process may start. If you are healthy and your pregnancy was completely normal, you can opt to give birth at home or at the outpatient clinic (in the latter case, you'll give birth in an MMC maternity suite with your own midwife from your midwifery practice). Many women give birth at the hospital under medical supervision (clinical childbirth). Labour may start naturally or be induced. Your baby may also be born by C-section (either planned or agreed by mutual consultation while giving birth).

Some figures

Of the 2,978 births that took place in 2021, 2,485 women (82.5%) gave birth under supervision of MMC. The remaining 493 women gave birth under supervision of their first-line midwife. Of those 493 women, 7.1% gave birth at home and 10.3% gave birth at the outpatient clinic.

13.5% (402 women) were referred to MMC during the process of giving birth. The most common reasons for such referral were a desire for pain relief (36.1%) and failure to progress (8.2%).

Spontaneous onset of labour

Natural onset of labour usually starts with contractions that keep getting stronger and more regular. Nine out of every ten births start this way. In the remaining births that start naturally, the waters break first. Once this has happened, 70% of women start getting contractions naturally within 24 hours. In some cases, the onset of labour is marked by some mucous blood loss.

Contractions

Contractions happen when the muscles in the uterus tighten. They feel like cramp in your lower abdomen that starts slowly, gets more intense, and then eases off. One way to view contractions is like waves rolling onto the beach.

To start with, you can feel a wave of pain coming. The pain is at its most intense just before the wave breaks. After that, the wave rolls back out and you can feel the pain starting to ease. Your abdomen will feel perfectly at ease in between contractions. Your contractions will get stronger, more regular and more painful as your labour progresses. Please refer to the *"When to call us"* section for details of when you should contact MMC.

Waters breaking
During pregnancy, the baby is surrounded by a membrane that contains amniotic fluid. When your waters break, this amniotic fluid is released. This can happen all in one go, or you might lose smaller amounts of fluid at a time. Generally speaking, amniotic fluid is clear, colourless or pink, but it can also have a yellow, green or brown tinge. In the latter case, the baby has passed a bowel movement in the amniotic fluid. This is referred to as meconium-stained amniotic fluid (meconium = your baby's stool).

When this happens, it is important to keep an eye on your baby at all times using a CTG (heartbeat monitor) to assess their condition. The majority of babies are not affected by meconium-stained amniotic water. The main risk of meconium-stained amniotic fluid is that your baby may have a more difficult start to life. For that reason, it may be necessary to perform an emergency C-section in some cases, or your baby may need to be admitted to the medium or intensive care unit for babies (NICU) if we suspect they have an infection or respiratory problems.

Your body is always producing amniotic fluid, so you may continue to experience some fluid loss even after your waters have broken. If you suspect that your waters have broken (regardless of how far along you are in your pregnancy), please contact the maternity suites straightaway, so you can come to MMC for an extra checkup. During this visit, we'll check the colour of your amniotic fluid and link you up to a heartbeat monitor (CTG). If necessary, we'll carry out an ultrasound too. It would be helpful if you could catch a little amniotic fluid in a container, so that we can assess it more easily.

If your waters have broken, we will wait until your contractions start spontaneously. We will monitor the situation for at least 24 hours. Once 24 hours have passed, we'll carry out extra tests (a vaginal swab) to check if there are any signs of a GBS infection. The mother may be carrying the bacteria causing this infection. This won't have any effect on her, but can be harmful to the baby. If there are no signs of infection, we may wait for another period of 24 hours before inducing labour.

Vaginal bleeding
During dilation or at the start of labour, there may be some slimy, red blood loss, which we refer to as 'show'. This is completely normal, but it is important that you contact us if you lose more than a single drop of clear blood.

Dilation
The opening of your cervix is referred to as 'dilation'. Dilation is caused by your contractions and only starts once your cervix has fully shortened.

The speed at which you dilate depends on the intensity of your contractions and the position of the baby. If you are giving birth for the first time, you'll dilate around one centimetre per hour on average. When you give birth to any subsequent children, you'll often dilate a lot quicker.

The first few centimetres of dilation may happen a little slower as your cervix still needs to soften and shorten. Once this has happened, dilation will often speed up a little. Often, your contractions will also come more frequently; every two or three minutes. By carrying out an internal examination, the care team can check how many centimetres you are dilated and whether your labour is progressing adequately. They will also feel to check where the baby's head is. So we can keep a close eye on the progress of your labour, an internal examination will be carried out every two hours to assess your dilation. You are considered to be in labour once your cervix has fully shortened, you are at least three centimetres dilated, and you are having regular contractions.

Expulsion (pushing out)
Once we can no longer feel the edges of your cervix during our internal examinations and your baby's head has descended deeper, you are fully dilated (10 centimetres). You will notice your contractions starting to feel different, and you will get an urge to push. This 'bearing down' is a reflex that is often difficult to suppress. Actively pushing yourself only makes sense once the baby has descended deep enough through your pelvis. Sometimes, the baby has not descended far enough into the pelvis yet, and the care team will ask you to breathe through your pushing contractions. In most cases, the pushing stage will last between 60-90 minutes if you are having your first child. For any subsequent children, it often lasts less than 30 minutes.

When you are giving birth for the first time, it may take a while before you can see anything from the outside. As the pushing stage progresses, a larger part of the baby's head will become visible. To begin with, the baby's head will drop back into your vagina. Once the baby has 'crowned', their head will remain visible on your perineum/in your vagina. Try to listen carefully to the instruction the care team give you. They will tell you when it's best to push, and when it's best to breathe through a contraction. The purpose of these instructions is to limit any tearing of the perineum as much as possible. Your perineum will also be supported to reduce the risk of tearing.

Once the baby's head is out, we will check whether the umbilical cord is around their neck. This happens often and is not serious. If necessary, we will loosen off the umbilical cord a little at that time. After that point, we'll ask you to push once more to deliver the shoulders and the rest of the baby's body.

If we have any doubt about the condition of your baby or there are indications that the baby is in distress, it may be necessary to perform an episiotomy, a vacuum extraction (assisted delivery) or a C-section. We will discuss this with you at that time. We will only carry out these procedures when genuinely necessary.

Medical interventions
Things may happen while you are giving birth that may necessitate medical intervention. Below, we'll explain which interventions may be necessary, when they may happen, and how often they are needed. It goes without saying that we will always discuss this with you at the time.

Constant CTG monitoring during labour
We use a CTG device (a heartbeat monitor) to help us monitor the baby. We will connect this as soon as you arrive, as a normal picture shows that the baby is in good health. The CTG can be connected wirelessly, so that you're free to move as you wish. You can even have a bath or shower while wearing the device. In principle, the CTG device monitors the situation externally using two buttons positioned around your abdomen using elastic straps. One button records any contractions, and the other button records your baby's heartbeat. If we cannot properly monitor your baby externally, we may wish to use a scalp electrode. A scalp electrode is a little wire that we attach to the skin on your baby's head. If we need to use this, we will discuss this with you.

Augmentation of labour (first line)
Nearly half of women who wish to give birth with their first-line midwife are transferred to MMC. The most common reasons for this are as follows: 1. failure to progress or 2. a desire for pain relief. Often, these two reasons go hand in hand, which makes it difficult to provide an exact figure. If dilation progresses too slowly, we will start augmenting your labour (though an oxytocin IV to stimulate your contractions). It is important that the dilation and pushing stage do not last unnecessarily long, as this poses certain risks to both the mother and baby.

Foetal scalp blood test
In some cases, it may be necessary to carry out a foetal scalp blood test during labour. This is a test we can carry out if we have any doubt about the baby's condition. As part of this test, we'll insert a little tube into the mother's vagina, though which we can see the baby's head. We will then take a few drops of blood from the baby's scalp for immediate testing. In most cases, we'll know the result in under a minute. We will apply pressure to the baby's head to stop any bleeding. Once done, we'll remove the vaginal tube.

Depending on the result, we have two options:
1. The result is fine and labour can progress as normal
2. The result indicates that the baby needs to be delivered straightaway

Depending on how far your labour has progressed, an episiotomy, vacuum extraction or C-section will be performed.

In 2021, an episiotomy was performed in 20.4% of births at MMC. One reason for performing an episiotomy is to speed up delivery when we think the baby is in distress. In some rare cases, an episiotomy is advisable to prevent any tearing down to the anus.

Vacuum extraction (artificial delivery) was performed in 7.7% of births at MMC in 2021. Reasons include the baby being in distress, or a lack of progress in the expulsion stage over a long period of pushing, meaning vacuum extraction was needed to help the baby be born vaginally.

Afterbirth and stitches

Afterbirth

Once your baby is born, the care team will wait at least three minutes before clamping the umbilical cord ('delayed cord clamping'). If you wish, your partner (or you) may cut the umbilical cord. At MMC, we use a cord ring to clamp the umbilical cord. Once the umbilical cord has been cut and clamped, the nurse will administer medicine (oxytocin) via your IV. This medicine will help your uterus contract properly, so that the placenta is delivered as quickly as possible and any bleeding remains limited. Excessive bleeding happens when you lose more than 1,000 ml of blood. In 2021, this happened in seven out of every 100 births at MMC (7.1%). In most cases, the reason for this excessive bleeding was insufficient contraction of the uterus following delivery of the placenta.

After your baby has been born, the care team will regularly feel your uterus to make sure it has properly contracted. In doing so, they will check whether the placenta has detached from the uterus and can be delivered. They will ask you to help push. Most placentas are delivered within a few minutes of the baby being born. If your placenta has not been delivered within 30 minutes, we will suggest removing it under a general anaesthetic in the operating theatre. In 2021, we needed to do so in four out of every 100 births (4.2%). Waiting more than 30 minutes for the placenta to detach does not make sense, as the risk of excessive bleeding starts getting much higher by that point. Excessive bleeding may also be a reason to surgically remove the placenta.

Stitches

After birth, the midwife or doctor will assess whether you need any stitches. In most women, especially after giving birth for the first time, the chance of tearing of the vagina, labia or tissue between the vagina and anus (perineum) is high (nearly 40 in every 100 births in 2021 (38.1%)). In some women, an episiotomy was performed (20.4% in 2021). It is important that deep tears or ay episiotomy cut are sutured to prevent any future issues. We do so using dissolvable stiches. When we need to apply stitches, we will administer a local anaesthetic first.

Any epidural administered during labour will also remain in effect for any suturing. Superficial tears often do not need any stitches. When the sphincter in your anus is damaged ((sub)total rupture), any stitching will be performed in the operating theatre. A (sub)total rupture (a partial sphincter tear or tear down to the sphincter) occurs in one to two in every 100 women (1.7%).

Golden hour
We believe it is important for the baby to be placed on your chest straightaway after birth. To many women, this is a true moment of joy, as well as a reward for their hard work. We will make every effort to leave the baby skin-to-skin with the mother up to its first feed and for at least one hour. This is extremely important for the bond between mother and child. Your baby will be dried off, covered in warm blankets and given a hat, so that they stay nice and warm. Sometimes, there may be a need for a paediatrician to be present at the birth of your child. If so, they will largely stay in the background in the room. When any extra interventions are required to support your child immediately after their birth, these can be carried out in the room.

Visitors
We appreciate that you would like to introduce your baby to family members and friends. With that in mind, they are welcome in your maternity suite immediately after delivery. You can largely choose any visiting hours you wish. It is up to the parents themselves to decide when family and acquaintances can come visit the neonatal unit and NICU. A prerequisite for this is that one of the parents of the child is present. Unfortunately, children up to and including 16 years of age who are not part of the family cannot come and visit the NICU, because of the risk of transmitting childhood illnesses.

Discharge
Your doctor or midwife will tell you when you can leave the hospital after giving birth. This depends on the delivery and the condition you and your child are in.

Registration
You must register your child with the municipality of Veldhoven within three working days after their birth, even if you live in another municipality. You can do so online via www.veldhoven.nl/geboorteaangifte or by appointment with the municipal authority via telephone number: 14040. Your child must be registered by someone who was present at the birth.

You will need the following to register your child:
- The mother's passport.
- Your own passport.
- Marriage certificate (if you are married).
- Proof that you acknowledge the child (if you are not married).

Follow-up
A follow-up appointment will take place within six weeks after a birth without complications. This may take place at the Woman-Mother-Child Centre, but can also be done over the telephone or with the midwife near you.

Pain during labour

Painful contractions are part of giving birth.

Various ways are available to help cope with this pain. The body produces a natural form of pain relief: endorphins. These endorphins help you better tolerate any pain.
Other ways to relieve the pain include a hot shower or bath, changing positions or using a birthing ball. During labour, you can opt for a wireless CTG device, so you can easily change position as you wish.

The warmth of a shower or bath can help you relax and deal with your contractions. The room you will be in during labour has its own shower, toilet and worktop. A bath is not necessarily available in your room as standard. A birthing pool is available in the bathroom at the MMC maternity suites. You can use this free of charge. If the pool in the bathroom is not available, a birthing pool can be placed in your room free of charge.

However, if you choose to have a birthing pool placed in your room and do not use the pool in the bathroom, there will be a cost involved. Please ask your health insurance provider for more details.

If these options are not enough to help you cope with the pain, you can choose to have pain relief in the form of medicine. You can simply let us know as soon as you need this. If you wish to use pain relief, you and the care team looking after you will assess which form of pain relief is the best option at that time. This depends on your dilation so far, the condition of your baby, how your labour is going and how long we expect it to take before you give birth.

At MMC, we offer two forms of medical pain relief for giving birth:

- Epidural (an injection into your lower back)
- Remifentanil (a morphine pump)

You can read more about these in our Pain relief during labour leaflet.

In 2021, 49 out of every 100 women who gave birth (49.4%) opted for an epidural, while seven out of 100 (6.8%) opted for a morphine pump (remifentanil). The remaining share gave birth without pain relief.

If you are referred to the hospital by a first-line midwife because you wish to use pain relief, we will always check the baby using a CTG (heartbeat monitor) first. On top of that, you will be connected to an IV through which we can administer fluids and medicine, if necessary. If all checks are normal, we will arrange pain relief for you.

Your birth preferences

In this leaflet, we informed you and your partner about how care is organised at MMC when you come here to give birth. We also told you how we care for you during your delivery and what to expect. There is always a chance your delivery doesn't go to plan, but it us our vision and goal to provide the best possible care to you, your partner and the baby you are expecting, together with you and our team.

During your pre-birth consultation, we will revisit the information in this leaflet. If you have any specific requests or if there is anything else we need to take into account, feel free to let us know.