



**41 weeks pregnant  
(and labour has not started yet)**

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## SEROTINITY

You are 41 weeks pregnant and labour has not started yet.

This is called imminent serotinity. We understand you will have questions about this.

Is it ok to wait? Should labour be induced?

## YOUR DUE DATE

Between 10 and 12 weeks of pregnancy we (or a sonographer) will perform an ultrasound. The ultrasound will determine your *due date*. Most pregnant women do not give birth on this exact date. The normal delivery time frame runs from 3 weeks before and 2 weeks after the due date.

## (IMMINENT) SEROTINITY

If labour has not started after 41 weeks, it is called imminent serotinity. After 42 weeks we speak of serotinity, this literally means 'post term'. In the Netherlands about 2-5% of pregnancies last longer than 42 weeks. From 42 weeks onwards, the advice is to induce labour to prevent the following complications:

- After 42 weeks the placenta is less able to provide the baby with nutrients.
- The quantity of amniotic fluid will slowly reduce.
- After 42 weeks it is more common than with shorter pregnancies for the baby's faeces (meconium) to get into the amniotic fluid. This can sometimes cause complications for the baby during the birth.

## UP TO 41 WEEKS

Up to 41 weeks we do not perform additional checkups. Approx. 80% of deliveries start spontaneously before 41 weeks, without any intervention being required. Approx. 20% of deliveries start in the 41st week, while 2-5% give birth after 42 weeks and induction may be required.

## FROM 41 WEEKS

It is not entirely clear what the best way forward is after 41 weeks. A study has been done in the Netherlands, called the INDEX study, which looked at the difference in outcomes between induction at 41 weeks versus waiting until 42 weeks. Below you will find two important results of this study, these apply when you have your first child:

Figure 1: Induction at 41 or 42 weeks?

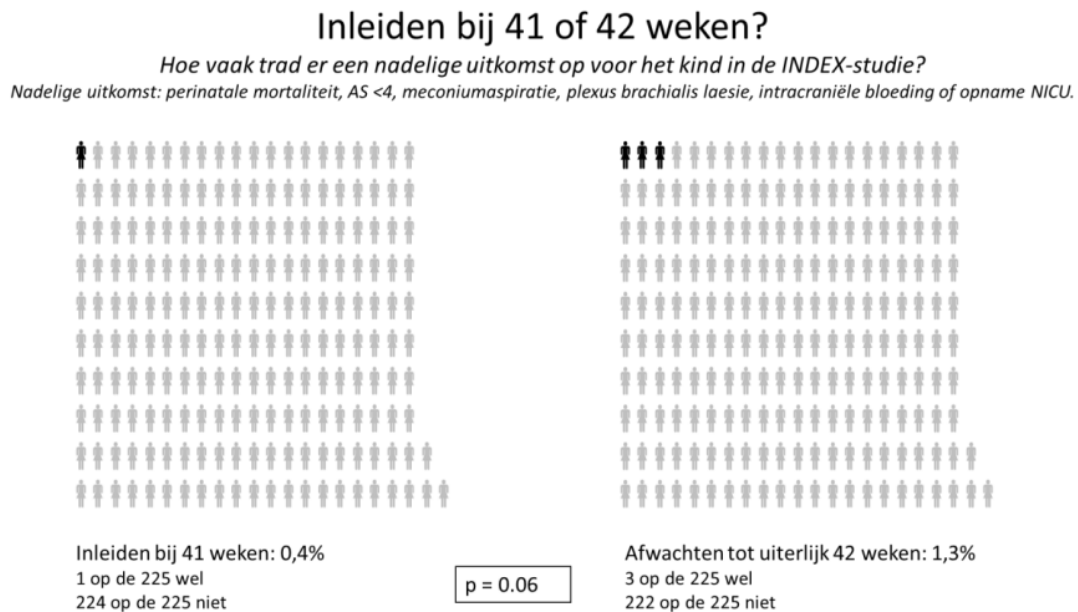
How many times had a child died in the INDEX study?

*The study was not large enough to show a difference in mortality. The numbers are therefore influenced by chance*



Figure 2: Induction at 41 or 42 weeks?

How often did a disadvantageous outcome occur for the child in the INDEX study?



If an unborn baby dies in the womb at 41 weeks, an induction at 41 weeks will usually reduce this mortality. In very rare cases, the baby can still die before, during or after delivery. But, the number of children who die after 41 weeks is very small. Many pregnant women will have to be induced to prevent 1 baby death and inductions cannot prevent all deaths. Induction is not without risk and has disadvantages. All pregnant women and babies who are induced undergo the disadvantages and risks of an introduction. Therefore, when making this choice, it must always be carefully considered whether the risk of mortality is that great that this outweighs the disadvantages of an introduction. The disadvantages of induction can be read later in the brochure.

It is important that the differences above were not found in women who have previously given birth. So you gave birth to your second/third/etc. baby, then there are no differences in risks for the baby if you choose to wait until 42 weeks or induce at 41 weeks.

You can choose whether you want to wait until 42 weeks or be induced at 41 weeks. You can discuss both options with us.

#### WAIT UNTIL 42 WEEKS

If you choose to wait and see after 41 weeks, we will see you at least twice that week for checks of you and the baby. During these checks, if you wish, we can also conduct internal examinations and membrane sweeping.

The figures mentioned above come from a scientific study. The participants in this study all received an additional pregnancy check-up in the hospital. During this check-up an ultrasound was made and a CTG examination was performed. However, no scientific studies have been conducted that show that carrying out these additional checks also improves pregnancy outcomes. You can therefore choose whether or not you want this extra hospital check. If we as midwives have any doubts about the condition of you or the baby, we will always refer you for this check.

#### HOSPITAL CHECK

The extra check consists of measuring the amount of amniotic fluid by performing an ultrasound and a CTG (see below) to check on the baby's heartbeat.

In addition, it remains important that you continue to feel the baby move (read the brochure: Feeling your baby move).

### CTG

A cardiotocograph (CTG) is used to monitor the baby's heart rate.

You will have two bands around your belly with each two sensors attached. One sensor measures the baby's heart rate. The other sensor monitors contractions in the womb. The CTG takes approximately 30-45 minutes. The results give an impression of the baby's health.

### ULTRASOUND

An ultrasound measures the amount of amniotic fluid. The placenta produces the amniotic fluid. Low amount of amniotic fluid may cause the placenta to work less well. Has the amount of amniotic fluid decreased significantly? Then it is usually recommended to induce labour.

### WHAT CAN BE DONE TO PREVENT SEROTINITY?

#### *Sweeping of the membranes*

The midwife has the option to stimulate spontaneous labour in week 41-42 by *sweeping*.

A membrane sweep involves your midwife or obstetrician inserting two fingers into your vagina and 'sweeping' their fingers around your cervix. This method can also determine if there is any dilation. From 1-2 cm dilation the membranes can manually be separated from the cervix (neck of the uterus). This separation releases hormones (prostaglandins), which may start your labour. Sweeping can be uncomfortable, but usually not painful.

Following the examination you may experience abdominal cramps, which will hopefully turn into regular contractions indicating the start of labour. Sometimes nothing else will happen apart from abdominal cramps and you may sleep less well that night. Sweeping has no known adverse effects. Sweeping does not guarantee labour will start. If sweeping does not work, then there is also no increased risk of complications.

That is why we attempt sweeping more than once, which increases the chances of success. A successful sweep, resulting in contractions and giving birth, only works for 1 in 6 women. After consulting with you, we can sweep from 41 weeks of pregnancy. In some cases we have performed this procedure at 40 weeks.

#### *Rupturing of membranes*

After 41 weeks of pregnancy and under certain conditions, the membranes can also be ruptured as a method to initiate labour.

Research shows that if you rupture the membranes, you have almost twice as much chance of spontaneous labour. Research also shows there are no additional medical risks attached.

#### How does it work?

For rupturing the membranes to be a suitable option, a number of conditions apply:

- you would like to give birth with your own midwife at home or in hospital (outpatient clinic)
- you are > 41 weeks pregnant
- it has been a healthy pregnancy so far
- the baby's head has lowered
- the internal examination shows a ripe cervix
- the hospital of your choice must have availability

If you choose this option, we will check with the hospital of your choice for availability, as a room must be reserved. We usually rupture your membranes at home (between 08:00 and 09:00), so that the booked room does not remain empty all day.

If your contractions start between 4 and 8 hours after rupturing the membranes (depending on which hospital and how long they will reserve the room), and has successfully resulted in dilation, we will supervise the birth. This can be at home or in the hospital. If after 4 to 8 hours contractions have *not* started, the obstetrician will take over the care and set up an Oxytocin IV to bring on the contractions artificially.

#### Comments

If the baby has defecated in the amniotic fluid, the care is immediately taken over by the obstetrician. Sometimes it is not possible for us to rupture your membranes as agreed, e.g. we are in the process of attending another birth or the hospital of your choice has no availability. We will then discuss with you (and the hospital) if the membranes can be ruptured later that day or the next.

## INDUCTION

Induction is the artificial triggering of labour by *inducing* contractions. The contractions are brought on by rupturing the membranes, often followed by an IV containing the hormone oxytocin. The dosage can be slowly increased if needed. Gradually the contractions will begin. Induction always takes place at the hospital.

At 42 weeks of pregnancy or more, inducing labour is recommended. If you prefer not to wait until 42 weeks, an earlier induction can be discussed.

Inducing labour can be done in 3 different ways and depends on the results of the internal examination.

- When the cervix is ripe and there is at least 1-2cm dilation, labour can then be started by rupturing the membranes and artificially inducing the contractions via an IV containing contraction-inducing hormones.
- Is the cervix not ripe yet?
  - The cervix can be ripened by taking Misoprostol tablets every 4 hours and the hospital will monitor your progress. This drug will artificially rupture the membranes and bring on contractions.
  - Another method is a catheter with a balloon that is inserted vaginally into the uterus. If everything else is okay, the balloon catheter can be used at home and you can wait for it to fall out. Then the membranes can be ruptured in the hospital, after which the contractions can be induced with medication as described above.

Which method is used depends on the hospital.

## PLANNING THE INDUCTION

Scheduling the induction is done shortly in advance by the hospital or the midwife, in consultation with you. However, it can always happen that this induction is postponed (by a few days) because it's too busy in the hospital.

## WHO SUPERVISES THE BIRTH?

Since induction of labour is a medical procedure, you will receive a medical indication to give birth in hospital. Sometimes the obstetrician supervises the birth, but in most cases this would be a clinical midwife or a doctor's assistant. Both report to the obstetrician and have regular consultations with each other.

## WHAT ARE THE DISADVANTAGES OF INDUCING LABOUR?

- Long stay in hospital, especially if the cervix has not ripened yet.
- The birthing process is different, because the contractions are artificially induced. The whole process will take longer and is often experienced as more painful and intense. It is therefore more likely that pain relief is required, such as an epidural.
- An induction will usually mean that you will be in hospital once labour starts. The birth will be supervised by a clinical midwife or doctor's assistant. Both report to the obstetrician. So you no longer have the option of waiting at home for the birth to start spontaneously or choosing *where* to give birth. Your usual midwife will not be the one to supervise the birth. During an induction, the baby's heart rate is monitored by a graph (CTG) and you will be given an IV, so you are less able to move around freely. An internal examination will be performed more regularly.
- There is not a higher risk of a vacuum delivery or a caesarean section after an induction
- It is still unclear what effect the hormone oxytocin (hormone used to induce contractions) has on processes in our body.

## QUESTIONS?

If you still have questions after reading this brochure, please ask!