The Stages of Pregnancy

The miracle of birth is preceded by a nine-month development process. The growth that occurs and changes that take place are amazing.

**The Early Stages**
Only a few hours after fertilization, the fertilized egg, called a zygote at this very beginning stage, starts dividing until the zygote contains almost 500 cells. It then starts traveling down the fallopian tube towards its destination in the uterus or womb. It takes about six days to reach the uterus and another eight to ten days to implant or attach itself to the lining of the uterus.

**The Embryo Stage**
This group of cells is about the size of the top of a pin. From the time it implants in the uterus until about the eighth week of life, the zygote is called an embryo. Also developed is an umbilical cord, a cord that joins the embryo at the navel to the placenta. The placenta is a group of rapidly developing cells attached to the uterine wall that provides the nourishment to the baby. The embryo floats inside the amniotic sac, a fluid-filled pouch. Fluids from your own body fill the sac and cushion the baby from all the bumps and movements of your busy life.

The embryo secretes a hormone into the blood stream that interferes with menstruation. This is the hormone that turns up in your urine and, during a pregnancy test, alerts you to the news you are pregnant.

During this stage, all the major body systems begin to develop. The central nervous system, the stomach, blood vessels, and the heart develops, as well as the lungs, eyes, arms, legs, hands, and feet. The brain grows rapidly. By the end of eight weeks, the embryo is no more than an inch long, but is starting to resemble a human being.
Early Signs of Pregnancy

- You have missed your period. *Don’t count on this as a sign if your menstrual cycle is irregular, you are under a lot of stress, or are feeling sick. It is also possible to have a light, bloody discharge and still be pregnant.*

- Your breasts are sore. Tender, enlarged breasts become extra sensitive to touch.

- You are nauseous. *Remember, however, that morning sickness doesn’t always happen in the morning. You can feel sick any time of the day.*

- You are exhausted and sleepy. Fatigue is a sign of early pregnancy.

- You need to urinate frequently.

- You feel faint or a little dizzy.

- You have an achy, heavy sensation in your pelvis.

- You’ve become intensely emotional. Hormone changes are partly to blame for this.

- You taste buds have changed. Some women develop a strong dislike for certain foods while others crave particular foods.

Confirming Your Pregnancy

Approximately two weeks after conception, or just one day after you miss your period, a doctor can confirm your pregnancy by testing a sample of urine and examining you internally. At ten to fourteen days of the pregnancy, the implantation of the uterus has occurred, and hormones are being secreted. Home pregnancy tests or tests done by a health care provider can also confirm a pregnancy by testing for the hormone that is present only in pregnant women. Women will know within minutes whether they are possibly pregnant by using home pregnancy tests, but should have results confirmed by a doctor.

Determining Your Due Date

Only 5% of expectant women actually deliver on their due date. However, having a deadline is important to avoid delivering prematurely, as well as going too long past the due date. If you have a regular 28 day menstrual cycle, you simply count 280 days from the first day of your last period. You can also add 7 days to the date of the last menstrual period, and then count back three months.
Getting Medical Help

**Obstetricians** are doctors who specialize in delivering babies. For some women, where they live will dictate the type of medical coverage or prenatal care that will be available. For others, there are choices in doctors, hospitals, and prenatal care available.

**Gynecologists** are doctors that deal with the health care of women, especially the diagnosis and treatment of disorders affecting the female reproductive organs.

**Midwives** are trained to care for women with low-risk pregnancies and to deliver babies. They provide personal attention and often work under the supervision of an obstetrician.

Many family practice physicians who care for the entire family are trained to deliver babies. The first visit should occur early in the pregnancy, so a doctor should be chosen as soon as possible.

**Medical Questions for Your First Visit**

- **How much will it cost?** Check into your health insurance to find out if there are any services not covered. Be sure to ask the doctor if there are any fees required and what they include.

- **Can my partner or friend stay with me during delivery?** You should know the official policy on visitors from the beginning.

- **Who will deliver my baby?** Does the doctor have back-up care if he/she is on vacation, or are there other specialists who would be on call?

- **Will I be able to move around during labour?** Some experts believe lying still during labour actually slows the process. You should know your doctor’s policy.

- **What is the doctor’s policy on pain medication or drugs to induce labour?**

- **Will I stay in my room during delivery or be moved to a special delivery suite?**

- **How long will I stay in the hospital after the birth?** What are insurance policies regarding length of stay, and what are hospital visiting hours?

- **Is there a special neonatal unit?** If not, where are babies who need help transferred to?

- **What is the doctor’s approach to weight gain during pregnancy?** Some physicians manage weight gain carefully while others feel weight gain is not easily controlled or predictable.

Even though some of these questions seem premature, it is best to not have surprises. The more you know earlier, the more comfortable you will feel.
What to Expect at Your Check Ups

- You'll probably have appointments once a month for the first seven months. Then visits increase to every two weeks. During the final month, weekly visits are usually standard.

- Urine samples will be required at every visit. Traces of sugar in urine indicate diabetes may be developing. Signs of protein are a warning that your kidneys aren't working properly.

- You will have your blood tested often. Blood testing will check for anemia or lack of iron, as well as sexually transmitted diseases. It will tell if you are immune to German measles, an infection that can lead to birth defects. A blood test will also tell your doctor your blood type, as well as your Rh factor. If your Rh factor is different from your baby’s, you will have complications.

- Your blood pressure will be checked at each visit. Stable blood pressure is critical to the safe delivery of the baby.

- You will have a Pap smear. The doctor scrapes the cervix during an internal exam to test cells for signs of cancer.

- You will be weighed. Charts suggest a total weight gain of twenty-five to thirty pounds evenly added month by month in small increments. Some pregnant women have uneven weight gain, while others are steady.

- Your legs, ankles, and hands will be observed to check for swelling. This is to determine whether you are retaining fluids.

- The baby’s heartbeat will be checked. From the second visit on, the doctor will listen to the baby’s heartbeat.

- Your abdomen will be poked, prodded, and measured. This is to check the position of the womb at each stage.

Dealing with Morning Sickness

Morning sickness affects more than 50% of all pregnant women, and is often one of the first sign of pregnancy. An upset stomach and vomiting can occur during any time of the day, and can last anywhere from the final twelve weeks to the full nine months. Some ways to lessen the effects of morning sickness are:

- eat frequent small meals to avoid an empty stomach. Even when you don’t feel like eating, force yourself.

- avoid caffeine.

- avoid strong smells, including tobacco smoke.

- eliminate fried or highly seasoned foods. Have a protein-rich snack (yogurt, cheese, or milk pudding) before bed, and avoid drinking.

- get up slowly in the morning. Sit on the side of the bed for a few minutes. Let your stomach settle before you attempt any quick moves. Don’t wait too long before you have breakfast.

- nibble on crackers. Ear some as soon as you wake up.

- drink liquids between, instead of with, meals. Take only small quantities of liquids at a time.

- limit stress. Allow people to help you. Rest and relax more often.

- try chewing gum or sucking on hard candy.
Stages of Pregnancy
Pregnancy takes approximately nine months, and is divided into three stages, called trimesters. The First Trimester includes the first three months. The Second Trimester includes months 4 through 6. The Third Trimester includes months 7 through 9.

<table>
<thead>
<tr>
<th>FIRST TRIMESTER</th>
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<tbody>
<tr>
<td>The first trimester (the first three months of pregnancy) is a critical time in the baby's life. It is the period of rapid growth and development. By the end of the first trimester, all of the baby's organs will be formed and functioning.</td>
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<table>
<thead>
<tr>
<th>1 day</th>
<th>The sperm and the ovum unite.</th>
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<tbody>
<tr>
<td>7-10 days</td>
<td>The fertilized ovum attaches to the lining of the uterus. The placenta begins to form.</td>
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<tr>
<td>2 weeks</td>
<td>The baby, called an embryo, is now a layered disc on the uterus wall. A woman will miss her menstrual period.</td>
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<tr>
<td>4 weeks</td>
<td>The beginning of the embryo’s eyes, ears, nose, spine, digestive tract and nervous system are present. The tube for the future heart starts beating.</td>
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<tr>
<td>8 weeks</td>
<td>The baby, called a fetus, now has all the organs that a full term baby will have. The heart is functioning. Bones begin to form.</td>
</tr>
<tr>
<td>12 weeks</td>
<td>Tooth buds are present. Fingernails and toe nails are forming. Immature kidneys secrete urine into the bladder. External genitalia are forming. The fetus can now move in the amniotic fluid, but these movements cannot be felt. The baby's heart beat may be heard with an electronic listening device.</td>
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## SECOND TRIMESTER

During the second trimester (the next three months of pregnancy) the brain develops a lot. Most of the brain’s development begins now and continues for two or more years after the baby’s birth. During the second trimester until about 24 weeks, the fetus cannot live outside of the body because its lungs, heart and blood systems have not developed enough.

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Measurements</th>
<th>Description</th>
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<tbody>
<tr>
<td>16</td>
<td>16 cm (6 1/2 inches)</td>
<td>The face looks more human, the baby has hair, the ears stand out, and the baby can hear the mother’s voice. Between 16 and 20 weeks, the baby’s movements may be felt. If this is a woman’s first pregnancy it is possible that the baby’s movements may not be felt until 18 to 20 weeks.</td>
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<tr>
<td></td>
<td>110g (4 oz.)</td>
<td>The baby begins to store some antibodies and this slowly increases until birth.</td>
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<tr>
<td>17</td>
<td></td>
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<tr>
<td>20</td>
<td>25 cm (10 inches)</td>
<td>Eyebrows and eyelashes appear. A fine downy hair (lanugo) appears all over the baby’s body and may be there at birth. The baby’s skin is thin, shiny, and covered with a creamy protective coating called vernix. Oil glands appear. The baby’s legs lengthen, and move well. Teeth develop—enamel and dentine are being formed. By the end of the fifth month the baby is about half the length of a newborn. During the second trimester, meconium (the baby’s first stool) begins to appear in the intestines.</td>
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<tr>
<td></td>
<td>300g (10 oz.)</td>
<td>Sweat glands form. Your baby has a lean body with red and wrinkled skin. Early breathing movements begin. A substance called surfactant is formed in the lungs. This substance helps the lungs to expand normally after the baby is born.</td>
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<tr>
<td>24</td>
<td></td>
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<tr>
<td>26</td>
<td>30 cm (12 inches)</td>
<td>The baby’s outline may be felt through the abdomen. The eyes may be open now.</td>
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<tr>
<td></td>
<td>600g (1 1/3 lb)</td>
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# THIRD TRIMESTER

During the third trimester (the last 3 months of pregnancy) the baby could survive if born before it is full term, but would need special care. The closer to full term, the more ready the baby is to cope with the birth process and life outside the uterus.

<table>
<thead>
<tr>
<th>28 weeks</th>
<th>35-37 cm (14 inches)</th>
<th>1100 g (2lb. 5oz)</th>
<th>The baby’s body is till lean but the skin is less wrinkled and red. The baby can now store iron, calcium, and other nutrients. The baby can hear and respond to sounds.</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 Weeks</td>
<td>40-42 cm (16 inches)</td>
<td>1800-2100g (4lb-4lb. 7oz)</td>
<td>The baby’s skin is pink and smoothes out as the fat forms under it. The baby develops a sense of taste and becomes aware of sounds outside the mother’s body. The male baby’s testicles begin to drop into the scrotum. The pupils in the baby’s eyes can react to light.</td>
</tr>
<tr>
<td>36 weeks</td>
<td>45-47 cm (18 inches)</td>
<td>2000-2900g (4lb. 11oz-6lb. 5oz)</td>
<td>The baby’s body is rounded and usually plump. The downy hair on the baby’s body begins to disappear. The baby’s skin is smooth, pink, and covered with a grayish-white cheese-like substance called vernix. The baby continues to increase the store of antibodies and is able to resist some diseases.</td>
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<tr>
<td>40 weeks</td>
<td>45-55 cm (18-22 inches)</td>
<td>3200g + (7lb. +)</td>
<td>Head hair is usually present. The testicles of male babies are now in the scrotum and the labia majora of female babies are developed. The baby is now full term.</td>
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</table>
Special Testing During Pregnancy

Ultrasound
A video image produced of the inside of the woman's abdomen when a wand is rubbed across the abdomen. Ultrasounds are safe and will detect more than one fetus, defects in fetal organs, position of the fetus, and the gender of the fetus. Pregnant women will usually have the test done at least twice, as it helps determine the due date.

Amniocentesis
A needle is inserted into the mother’s abdomen to draw fluid from the amniotic sac. An ultrasound is used during the procedure so the doctor can see where the fetus is when the needle is inserted. This test will discover genetic disorders, metabolic problems, and other birth defects.

There are a number of other sophisticated tests available to screen for certain birth defects. They are often performed on a sample of blood taken at a specified time during the pregnancy. High readings will trigger another blood test and possibly different procedures. Any procedures on the fetus are done at a medical centre using an ultrasound as a guide.

Termination of a Pregnancy

Some pregnancies end spontaneously during the first trimester. There may have been a defect in the fertilized ovum, or a physical problem may have been the reason.

Miscarriage
This is the spontaneous expulsion of the fetus from the uterus. It is suspected that more than 20% of all pregnancies end in miscarriage in the first 13 weeks of pregnancy, often before women even realize they are pregnant. Signs of miscarriage are cramping in the centre of the abdomen and bleeding.

Some factors that may cause a miscarriage are:

- hormonal deficiencies
- anatomical problems in your cervix or uterus
- incompatible blood types or the Rh factor
- viruses and infections
- immune disorders

Abortion
Abortion is the removal of an embryo or fetus from the uterus in order to end a pregnancy. Abortion is usually discussed when a pregnancy poses a high risk to a woman’s health. An abortion during the first trimester is considered medically safe, while beyond that, abortion involves greater risks.

Abortion is a very controversial issue and can cause severe emotional impact on a woman. Some believe it should never be allowed, while others feel that a woman should have the legal option to decide what is right for her and her body. Others believe abortion should be allowed only in life-threatening situations. It is a very, very serious decision to make, and all options must be weighted carefully.
High Risk Pregnancies

High risk pregnancies mean that for any number of reasons, your pregnancy is considered high risk or in danger. Potential reasons to consider a pregnancy high risk would be:

✓ diabetes, or even a history of diabetes in the family
✓ high blood pressure
✓ heart problems
✓ tuberculosis
✓ asthma and/or allergies
✓ thyroid disorder
✓ any uterine or pelvic abnormally – eg., fibroid tumours or ovarian cysts
✓ diagnosis of a sexually transmitted disease
✓ abnormalities in a family’s genetic history
✓ age – teenage or over thirty-five
✓ previous problems of miscarriage, stillbirth, premature birth, or cesarean section

In high risk pregnancies, the relationship between the doctor and patient is close and constant. Often, special medical centres are used for the delivery, and monitoring of the pregnancy is done on a weekly basis.

Follow Up Questions

*Answer the following questions on a separate piece of paper.*

1. List three possible indications that you are pregnant.

2. Name three possible ways of dealing with morning sickness.

3. Why do women visit their health care providers more often as the pregnancy progresses?

4. Why is a Pap smear a test that every woman should have, pregnant or not?

5. How does an ultrasound differ from an amniocentesis? Which is more common?

6. List six things that will likely happen at the pregnant woman’s first prenatal appointment.

7. Summarize each trimester in a woman’s pregnancy.

8. Define the following terms:

   - zygote
   - embryo
   - fetus
   - umbilical cord
   - placenta
   - amniotic sac
   - obstetricians
   - gynecologists
   - midwife
   - trimester
   - ultrasound
   - miscarriage
   - abortion