Pregnancy - Week by Week

Text from Better Health and Photos from Internet

The unborn baby spends around 38 weeks in the womb, but the average length of pregnancy (gestation) is counted as 40 weeks. This is because pregnancy is counted from the first day of the woman's last menstrual period (LMP), not the date of conception, which generally occurs two weeks later. Pregnancy is divided into three trimesters:

- **First trimester** - conception to 12 weeks
- **Second trimester** - 12 to 24 weeks
- **Third trimester** - 24 to 40 weeks.

**Conception**
The moment of conception is when the woman's ovum (egg) is fertilised by the man's sperm. The gender and inherited characteristics are decided in that instant. In a 28 day cycle, conception occurs usually on the 14th day after the 1st day of the last menstrual period but may be plus or minus 4 days or more. The sperms can be seen invading and fertilizing the egg in figure 1.

**Week 1 after conception (Week 3 after LMP)**
Thirty hours after conception, the cell splits into two. By day three, the cell (zygote) has divided into 16 cells. After two more days, the zygote has migrated from the fallopian tube to the uterus (womb). At day seven, the zygote burrows itself into the plump uterine lining (endometrium) as depicted in figure 2. The zygote is now known as a blastocyst.

**Week 2 after conception (Week 4 after LMP)**
The developing baby is tinier than a grain of rice. The rapidly dividing cells are in the process of forming the various body systems, including the digestive system.

**Week 3 after conception (Week 5 after LMP)**
The evolving neural tube will eventually become the central nervous system (brain and spinal cord). Figure 3

**Week 4 after conception (Week 6 after LMP)**
The baby is now known as an embryo. It is around 3mm in length. By this stage, it is secreting special hormones that prevent the mother from having a menstrual period. Figure 3.

**Week 5 after conception (Week 7 after LMP)**
The heart is beating. The embryo has developed its placenta and amniotic sac. The placenta is burrowing into the uterine wall to access oxygen and nutrients from the mother's bloodstream. Figure 4.

**Week 6 after conception (Week 8 after LMP)**
The embryo is now around 1.3cm in length. The rapidly growing spinal cord looks like a tail. The head is disproportionately large and dark spots appear which become the eyes and the nose. The arm and leg buds begin to show themselves, as do the ears. Figure 4.
Week 7 after conception (Week 9 after LMP)
The eyes, mouth and tongue are forming. The tiny muscles allow the embryo to start moving about. Blood cells are being made by the embryo's liver. The brain is active, and has brain waves. Your uterus is now about the size of a tennis ball. It is still low in the pelvis and presses against your bladder causing the need to urinate more frequently. The fetus is constantly in motion, although you will not feel it yet.

Week 8 after conception (Week 10 after LMP)
The embryo is now known as a foetus and is about 2.5cm in length. All of the bodily organs are formed and the fetal heart may be felt with a doppler. With its large head and short limbs it looks like a shrimp. The hands and feet, which previously looked like nubs or paddles, are now evolving fingers and toes. The genitals have begun to form. Figure 5

Week 9 after conception (Week 11 after LMP)
Teeth are budding inside the gums. The tiny heart is developing further.

Week 10 after conception (Week 12 after LMP)
The fingers and toes are recognisable, but still stuck together with webs of skin. The fetus’ kidneys have formed and the baby will start to pass urine into the amniotic fluid that surrounds him in the uterus. The eyelids have developed. Toothbuds are forming along with the vocal cords. The fetus now begins to bend and stretch, moving its arms and legs, making fists, opening hands and lifting its head.

Week 11 after conception (Week 13 after LMP)
The foetus can swim about quite vigorously. It is now more than 7cm in length. The fetus is constantly moving around, safely cushioned by the amniotic fluid. Although you still do not feel these movements, the baby is exercising as he grows.

Week 12 after conception (Week 14 after LMP)
The eyelids are fused over the fully developed eyes. The baby can now mutely cry, since it has vocal cords. It may even start sucking its thumb. The fingers and toes are growing nails. Facial feature and fingerprints have now formed. The fetus is about 7-10 cm long now.

Week 14 after conception (Week 16 after LMP)
The muscles develop further, and the baby's movements as it swims and kicks are more co-ordinated. By now, the main organs in the baby’s body are formed. The amniotic fluid, the placenta and the surrounding membranes sustain his life. The baby’s environment sustains the perfect temperature regardless of the weather outside. However, avoiding high temperatures like a hot tub or sauna is recommended. Extreme heat may be dangerous for the baby.

Week 16 after conception (Week 18 after LMP)
The foetus is around 14 cm in length. Eyelashes and eyebrows have appeared, and the tongue has tastebuds. An ultrasound is commonly performed around this time (usually week 18) to check for abnormalities, position of placenta and multiple pregnancies. Interestingly, hiccoughs in the foetus can often be observed. The baby is now inhaling and exhaling the amniotic fluid. The circulatory system is also operating now.

Week 20 after conception (Week 22 after LMP)
The foetus is around 21cm in length. The ears are fully functioning and can hear muffled sounds from the outside world. The fingertips have prints. The genitals can now be distinguished with an ultrasound scan. The fetus is now growing a waxy coating called vernix. This coating protects the skin and allow for easier delivery.
Week 24 after conception (Week 26 after LMP)
The foetus is around 33cm in length. The fused eyelids now separate into upper and lower lids, enabling the baby to open and shut its eyes. The skin is covered in fine hair (lanugo) and protected by a layer of waxy secretion (vernix). The baby 'breathes' amniotic fluid in and out of its lungs. The baby can hear your voice from within the womb now. He also hears your heartbeat. He may startle at sudden loud noises, flailing his arms and legs.

Week 28 after conception (Week 30 after LMP)
The foetus is around 37cm in length. The growing body has caught up with the large head, and the baby now seems more in proportion. The baby can hear your voice from within the womb now. He also hears your heartbeat. He may startle at sudden loud noises, flailing his arms and legs. You will feel the stretching of ligaments, which can often be felt as back pain. The baby now has eyelashes and hair. You may be experiencing rehearsal contractions called Braxton-Hicks contractions.

Week 32 after conception (Week 34 after LMP)
The baby spends most of its time asleep. Its movements are strong and coordinated. It has probably assumed the 'head down' position by now, in preparation for birth. Your baby can see the light through the walls of the womb. He practices blinking.

Week 36 after conception (Week 38 after LMP)
The baby is around 46cm in length. It has probably nestled its head into its mother's pelvis, ready for birth. If it is born now, its chances for survival are excellent. Development of the lungs is rapid over the next few weeks. Your baby’s toenails have reached the tips of his toes. The mature umbilical cord is about 50cm long. The uterus is now just at your rib cage. Breathing may be difficult. Also, smaller and more frequent meals may be necessary as the stomach has little room now. When the baby’s head engages in the pelvis, referred to as ‘drops” you will have some relief from these symptoms. The baby’s nervous system is maturing for birth. The baby’s head may have dipped or dropped into your pelvis, alleviating the shortness of breath symptom. A baby at 37-38 weeks is considered full term. He or she could be born anytime. You will experience more Braxton-Hicks contractions.

Week 38 after conception (Week 40 after LMP)
The baby is around 51cm in length and ready to be born. It is thought that the baby secretes hormones that trigger the onset of labour. The baby is now ready for birth. The downy hair and vernix has just about disappeared, swallowed by the baby. This and other matter remains in the baby’s bowels until the first bowel movement after birth called meconium. Meconium is a tar like substance excreted by the baby after birth. The baby has very little room to move around now. You will still feel movement, but not the active kicking and punching of earlier.

Things to remember
Pregnancy is counted as 40 weeks, starting from the first day of the mother's last menstrual period. The gender and inherited characteristics of the baby are decided at the moment of conception.