



Growing Baby 1

MH takes you on week-by-week guide of your 40-week pregnancy.

WORDS DR CHUA YANG

regnancy is a journey of discovery! As an expectant mother, you may be overwhelmed and confused by the many changes that your body goes through, but understanding these changes can help you face each new day with much wonderment and anticipation.

The very first confusion may occur at the consultation with your obstetricians. You are told to be eight weeks pregnant and that just doesn't seem possible! Well, obstetricians calculate pregnancy dates from the first day of the last menstrual period, while gynaecologist assess progress in terms of weeks. In other words, it's not referred to as a nine-month pregnancy but a 40-week process. Also, Baby was conceived at two weeks and the estimated date of delivery or the "due date" is at 40 weeks!

So let's take a virtual tour of this 40-week journey and find out what goes on with you and your baby during this adventure.



## The First Trimester

## Week 1

### Mummy

This is the start of the menstrual period and the womb lining renews itself by shedding.

# Week 2

### Baby

Of the thousands of follicles that have been lying dormant in mummy's ovary, one little follicle carrying half of Baby's genetic material now responds to the hormonal changes and rapidly grows and matures.

### Mummy

The womb lining regenerates and gets "plumped up" in anticipation of the arrival of baby.

# Week 3

### Baby

The matured egg extrudes from the ovary in the process of ovulation. That fastest swimming sperm carrying the other half of genetic material from daddy finds this egg and fertilisation occurs. Baby is now a cell that is dividing in mommy's fallopian tube and makes its way towards the womb.

# Week 4

#### Baby

Baby is now a clump of cells called the blastocyst and successfully finds a suitable spot in the womb and implants itself. The outer cells become the placenta and derive blood supply from mummy's womb lining and the inner cells develop to become various parts of baby.

### Mummy

Following successful conception, large amounts of progesterone is produced to support this pregnancy. You may start to "feel different", experience some breast tenderness and engorgement. You may experience a light bleeding at this time, which suggests menses, but the period does not come.

# Week 5

### Baby

The brain and the backbone begin to form. The external covering changes also and begins to start the process of creating the placenta and the amniotic cavity (which will surround the placenta).

### Mummy

You miss your period and start to feel unusually tired. The lower part of your turnmy feels bloated. A home pregnancy test will announce the good news!

# Week 6

### Baby

The embryo now looks like a small "alien"! A primitive heart starts to pump and there is colour! Little buds that will become the arms and legs appear this week. The site for the eyes and ears become evident.

On average, the Baby is now about 3mm from the rump to the tip of the head.

#### Mummy

If you didn't believe the several home pregnancy kits, a visit to the doctor's will confirm the pregnancy via the ultrasound scan!

Hormones are rising rapidly and you may start to experience some nausea.

# Week 7

### Baby

At the end of this week, the basis for Baby's brain, blood and nervous systems are in place. Eyes, ears and mouth begin to form.

Tissues that will form the backbone and the abdominal muscles begin to develop.

Baby now measures 5 to 7mm in crown rump length.

### Mummy

Your doctor tells you the estimated date of delivery and you can't wait to start planning for Baby's arrival!

# Week 8

### Baby

Baby's head takes shape and tiny dimples show the future location of the eyes and ears. Little rays on the limbs start to form and will become fingers and toes. The digestive system starts to develop.

The tissue connecting the embryo to the uterus turns into an umbilical cord. Clusters of cells that will become the testes or ovaries appear.

The crown rump length is now 9 to 14mm.

#### Mummy

Your appetite is behaving really strangely now. You may feel hungry but can't seem to put much food in. There may be unusual cravings for food you never thought you liked before. Some smells (like when your neighbour fries her fish) are beginning to bug you a whole lot!

#### Daddy

Let's not forget what caring doting husbands can do at this time! This is the time your hero steps in and volunteers to



scout for food that you may find tolerable or appealing!

## Week 9

### Baby

Baby now has reflexes and can move spontaneously. The thorax and abdomen are entirely formed. The lungs begin their development. The heart is now in the chest cavity and beats strongly.

The head is becoming more prominent. The eyes can be seen behind the closed membrane layer that will become the eyelids.

Fingers and toes are formed this week. Baby now measures 17 to 22mm and weighs 2g.

### Mummy

Many of your relatives now know that you are pregnant and everyone would offer advice! There are all these varied opinions... "no pineapples or cold drinks", "no more coffee!", "eat more fish – it's brain food for the baby!", etc.

What are you to do? You already have problems with so many foods.

It is important that you take into consideration what your appetite allows you to take. If there is no nausea or vomiting, you should start to focus on a good balanced diet. But if "good food" only serves to induce vomiting, then it's not the time to be fussy about your nutrition. Remember that whatever you manage to hold down will be nutrition for your growing baby whereas the most beneficial food for baby will not amount to much if it cannot be kept down!

# Week 10

#### Baby

Your baby, which was an embryo up until now, has become a foetus, which means "young one".

Baby's framework has been made up of cartilage. This week, the first bone cells

begin to replace this cartilage.

The bones for arms and legs begin to harden and joints begin to form.

The face and jaw are also formed.

All of the vital organs are in place: heart, lungs, brain, and intestines. However, they are all still immature and will develop further. The genitalia begins to form.

Baby now measures 3cm and weighs 3g.

#### Mummy

Seeing Baby on ultrasound scan is an emotional experience! Baby has taken the human form and you can start to make out little hands and feet! This little one is going to be yours for life and that just makes all the discomfort of early pregnancy worthwhile.

# Week 11

#### Baby

Baby will open his mouth for the first time. Salivary glands and vocal chords begin to form. The eyes are completely formed, but the membranes that will become the eyelids keep them covered still.

Hands and feet develop rapidly. Heart is beating strong at around 150 beats per minute.

Baby now weighs about 10g.

#### Mummy

The lower tummy feels increasingly full and bloated. Not being able to move your bowels daily makes it worse. Your sleep is disturbed by these discomforts and frequent leg cramps.

Your doctor tells you that this is the time when the rapidly growing womb is now filling up the pelvis and exerting pressure on the bladder and bowel. Lots of women at this time unwittingly drink less water because they keep feeling the urge to pee and dehydration is one of the most common reasons for leg cramps.



# Week 12

### Baby

The brain is developing fast and baby's head is the biggest part of the body. All the organs, limbs and external genitalia are fully formed. Having completed organogenesis (formation of organs) also implies that Baby is now less susceptible to external insults like chemicals and drug exposure.

Baby is now about 5cm from head to rump and 7.5cm if the expanding legs are taken into consideration.

### Mummy

Congratulations! You have reached the end of the first trimester and definitely start to feel the discomforts leave you.

You are less nervous as everyone tells you that the pregnancy is now a lot more stable and the risk of miscarriage has significantly diminished.

Your doctor runs some blood tests and measures the baby's neck (nuchal translucency) to assess for risk of Down's Syndrome.

#### Daddy

Both of you share a Kodak moment when you watch your young one showing off in front of proud parents with the gymnastic moves!

Dr Chua Yang is a consultant obstetrician and gynaecologist with A Clinic for Women.