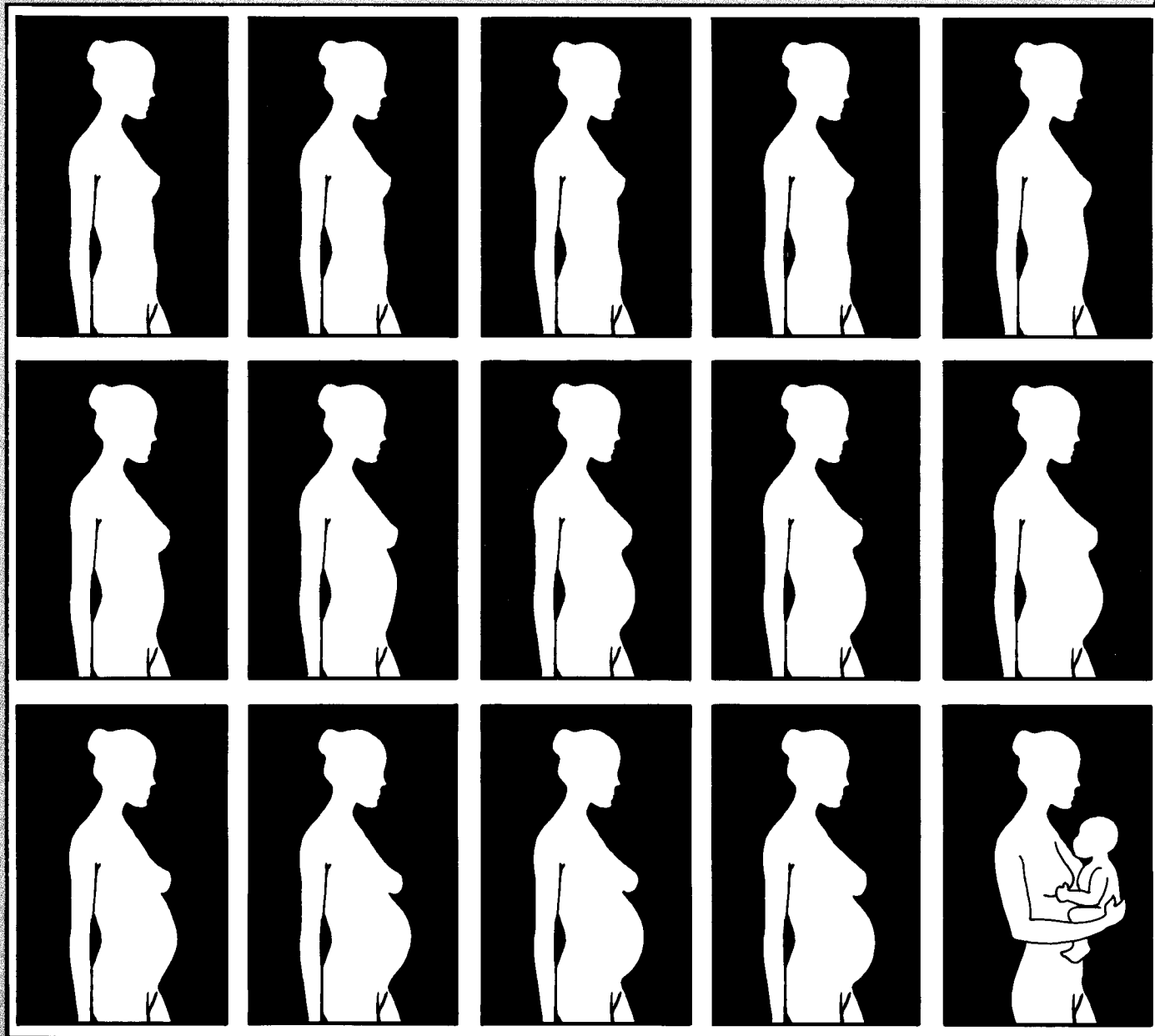


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Stages of PREGNANCY and LABOUR

Health Information and Translation Services
DEPARTMENT OF HEALTH, NSW

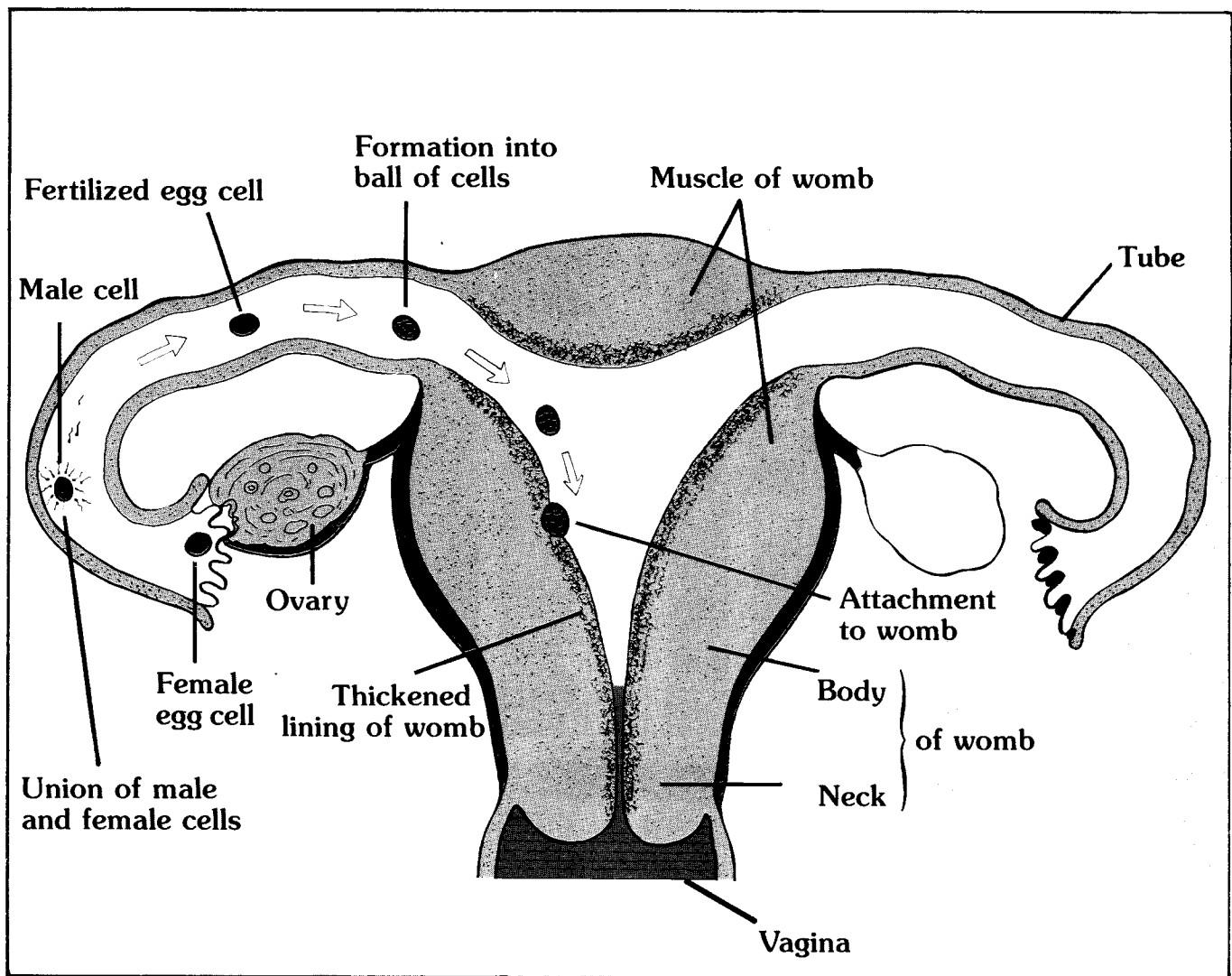


Diagram 1: Fertilization of female egg cell and attachment to womb.

Pregnancy starts with conception.

This happens when an ovum, or egg, is shed from a woman's ovary about midway between menstrual periods, and becomes fertilized by the male cell, or sperm, usually in the outer end of the Fallopian tube (*Diagram 1*).

The fertilized egg is carried down the tube and becomes attached to the wall of the womb. This usually happens a few days before the next monthly period is due, and stops it from happening. Occasionally, a "light" period or even what appears to be a normal period may occur.

If you think you are pregnant you should visit a doctor immediately, in order to make sure. He or she will examine you and will discuss the things you should or should not do. The doctor will also be able to guide you on any problems or worries you may have.

The support of the baby's father and/or a family friend can be a great help and comfort during pregnancy, labour and birth.

You can work out approximately when your baby will be born by counting nine calendar months plus seven days from the first day of the last monthly period.

ovary	organ that produces female egg cells
ovum or egg	the female cell
sperm	the male cell
fertilization	conception; the union of male and female cells
Fallopian tube	the tube that leads from the ovary to the womb
uterus	womb

Immediately after fertilization, and as it moves down the Fallopian tube, the egg divides into two cells which in turn continue to divide, resulting in a rapid increase in number until a solid ball of cells has been formed. On arrival in the womb, this ball of cells (the embryo) becomes attached to the side wall.

Once the ball of cells is attached, the tissue surrounding it begins producing hormones which help the pregnancy to continue.

The part by which the ball of cells is attached to the womb will become the placenta or afterbirth, which is also attached to the baby's navel by the umbilical cord. This cord carries to the baby nourishment and oxygen taken from the mother's blood by the afterbirth. It also takes waste materials from the baby to the afterbirth, to be disposed of through the mother's body.

In early pregnancy the mother may feel a little tired, depressed or irritable, and some mothers may feel squeamish or "sick on the stomach". This is called morning sickness, but it may occur at any time of the day or night. These upsets are usually not serious and soon cease. They are caused by the changes taking place in the mother's body.

embryo	the ball of cells formed in the first stage of pregnancy
hormone	a chemical which controls part of the body's function
placenta	the afterbirth
umbilical cord	the tissues that connect the afterbirth to the baby's navel

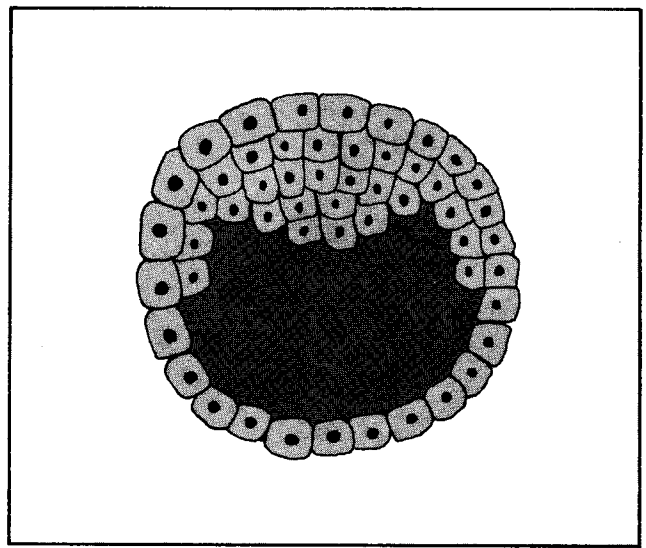


Diagram 2:
Early development
— ball of cells.

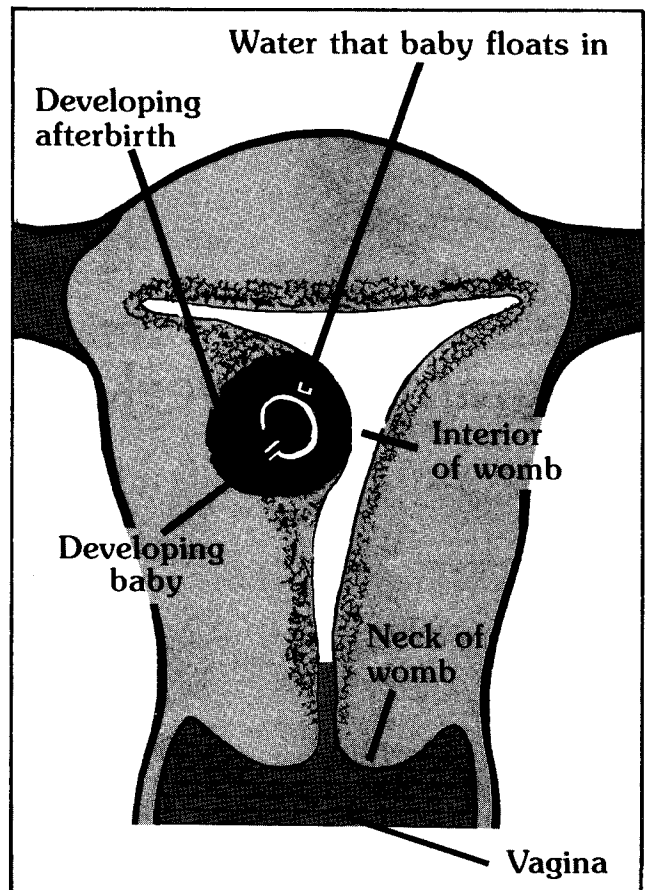


Diagram 3:
6 weeks' pregnancy.

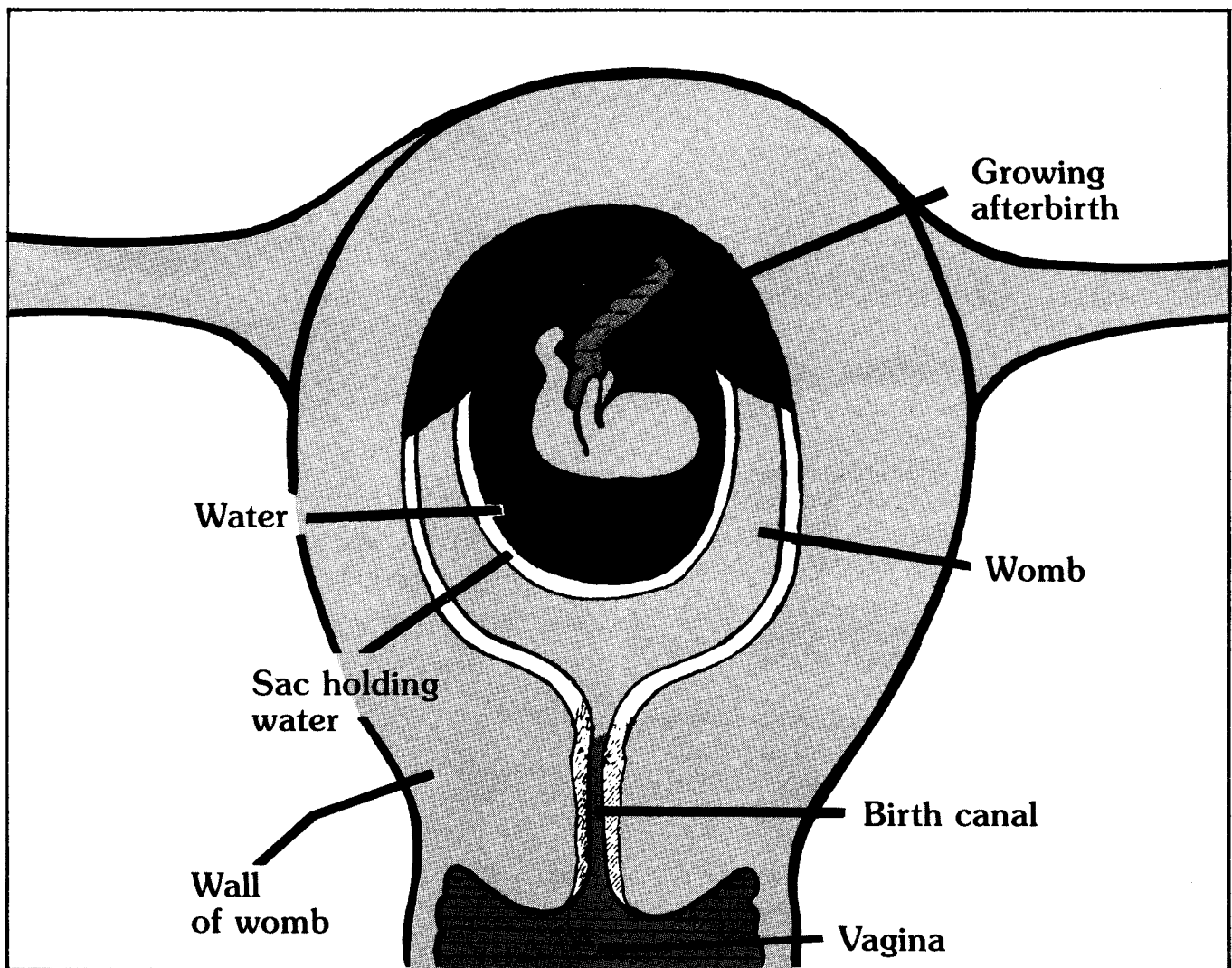


Diagram 4: 12 weeks' pregnancy.

Diagrams 3, 4 and 5 show the growth of the baby between six and 16 weeks. The afterbirth, cord and the outer layer of the ball of cells are clearly seen. This outer layer forms a sac which surrounds the baby and is called the amniotic sac. It is filled with liquid (commonly called the water) which protects the baby while it is growing in the womb.

At about 20 weeks after fertilization the baby (now called the foetus) begins to move. The first movements are felt as flutters and are known as "the quickening". It is important to note the time these movements are first felt, as they occur about half way through pregnancy and can be a guide in deciding that the "dates" are correct.

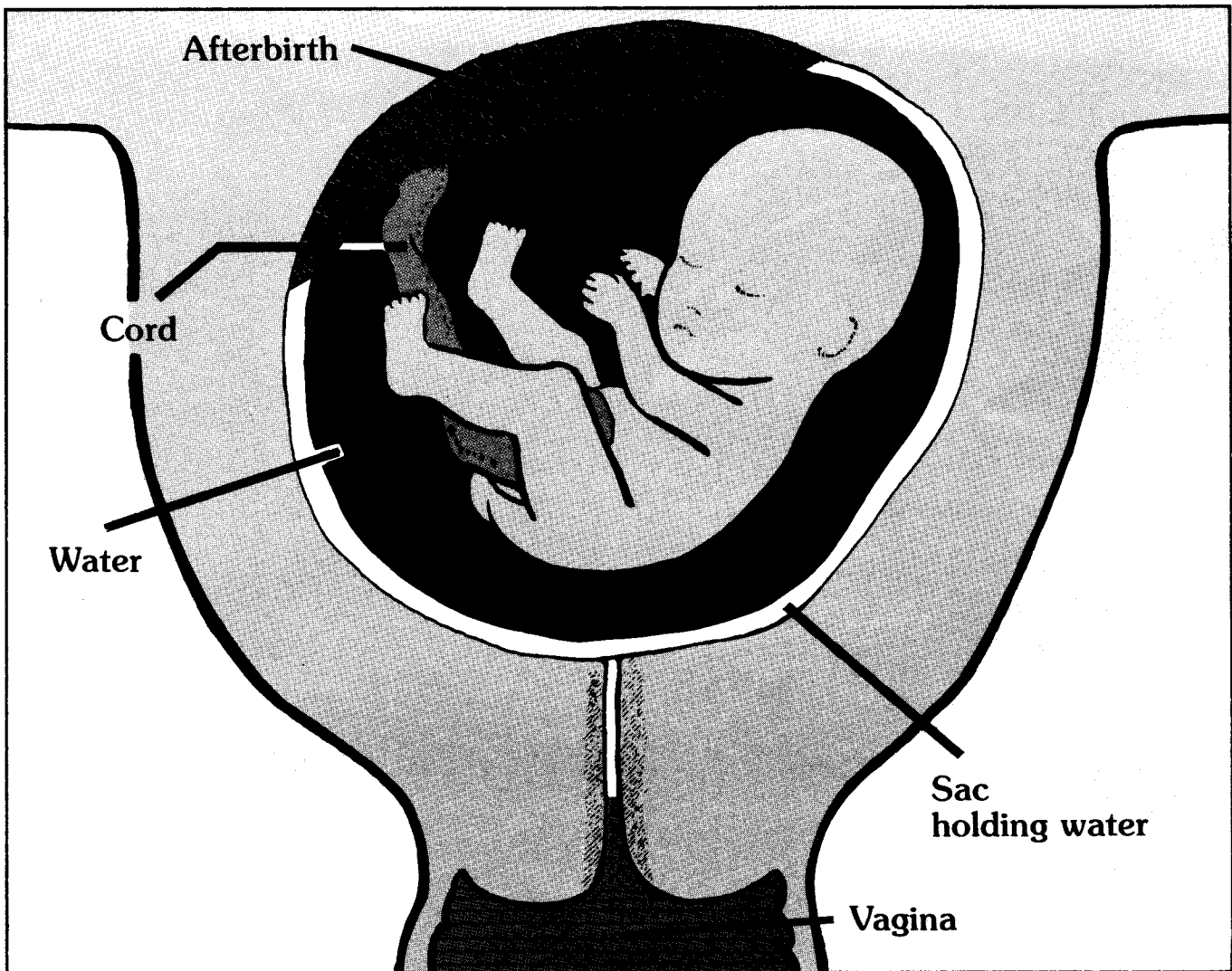


Diagram 5: 16 weeks' pregnancy.

They are slight at first and may be mistaken for wind, but increase in strength as the baby grows.

At the quickening, the top of the womb is about level with the mother's navel. The womb increases in size as the baby grows and by the 40th week after pregnancy starts, almost fills the abdomen. The baby is now ready to be born and the mother is said to be at term.

amniotic fluid	the liquid the baby floats in; the water
amniotic sac	the bag holding the amniotic fluid and the baby
foetus	the name given to the baby after about 10 weeks
quickening	baby's first felt movements
abdomen	belly or 'stomach'
term	the period after the 37th week
vagina	the birth canal

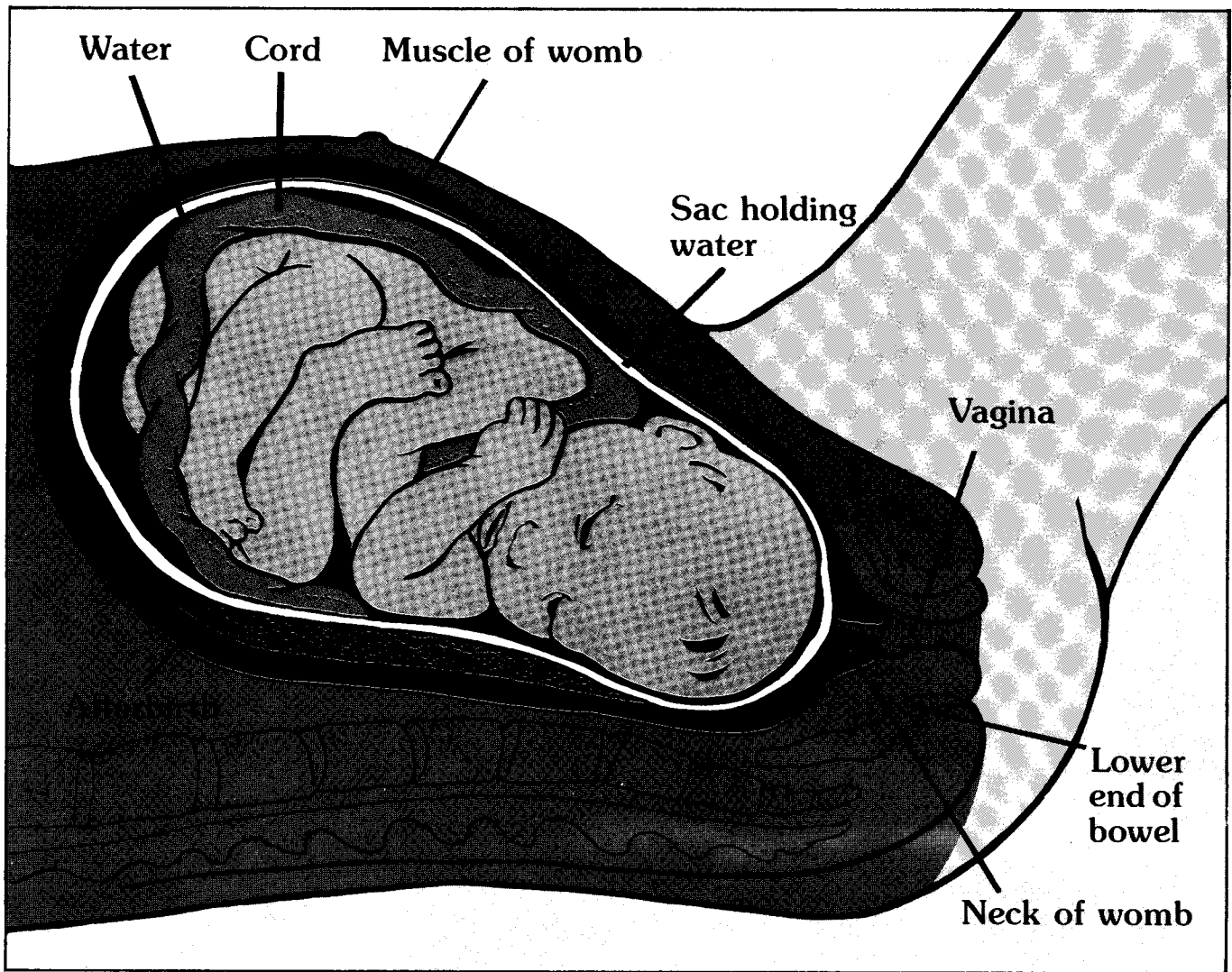


Diagram 6: 40 weeks' pregnancy.

Diagram 6 shows the baby in a late stage of pregnancy. Note the strong thick muscle (below the baby's head) which is called the cervix or neck of the womb. During pregnancy this muscle remains contracted to keep the opening from the womb closed, and this opening usually contains a plug of jelly-like material.

When labour starts, the neck of the womb stretches gradually as a result of the contractions of the muscle in the womb (*Diagram 7*). These contractions are irregular to begin with and occur at intervals of about 20 to 30 minutes. They feel like cramps in the stomach, sometimes with slight back-ache. As the neck of the womb opens, the plug of jelly-like material becomes dislodged

and passes through the birth canal on to the underwear or into the toilet when passing urine. It is usually slightly blood-stained and its passing is called "the show". This is a fairly reliable sign that labour has begun.

During labour, the baby's heart rate is checked regularly and the mother may be examined internally to see how labour is progressing. Only fluids in small quantities should be taken by mouth.

cervix	the neck of the womb
contraction	a tightening of the womb muscle. This may be painful
internal	the doctor or nurse inserts a finger into the vagina
examination	of the lower end of the bowel

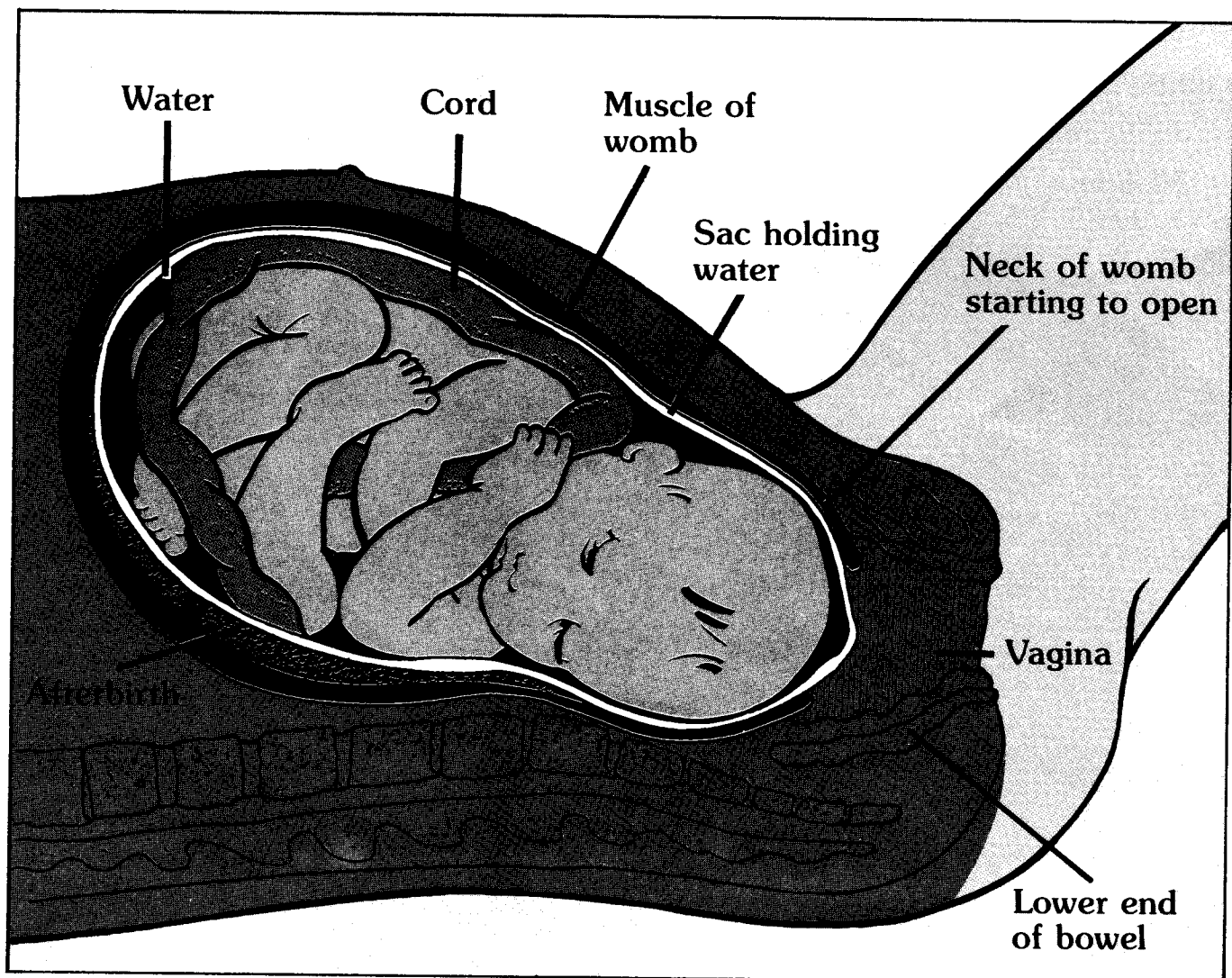


Diagram 7: First stage of labour.

During the first stage of labour, the contractions become stronger, more frequent and regular until the neck of the womb is fully open. The relaxation and breathing exercises learned in pre-natal classes are very helpful at this time.

Sometimes the woman needs pain-relieving medication during this stage. One preparation available is a mixture of gas and air, which is breathed through a mask held by the woman herself. An injection of a pain-relieving drug may also be used. Sometimes a small dose of local anaesthetic is placed at the roots of the nerves supplying the womb (uterus). This results in relief of pain, and is called an epidural.

As the neck of the womb is stretching, the sac that holds the water bulges in front of

the baby's head. The sac usually breaks as soon as the neck of the womb is fully open, but it may break before this and sometimes does so before labour begins. On other occasions, it may not break until the head is born.

The second stage of labour begins as soon as the neck of the womb is fully open. With the onset of the second stage, the woman feels a desire to push down. During this stage, the baby passes through the birth canal (*Diagram 8*), and to help this the mother bears down by taking a deep breath, tightening the muscles of the abdomen and pushing down as if opening the bowels. Relaxation between contractions is very important.

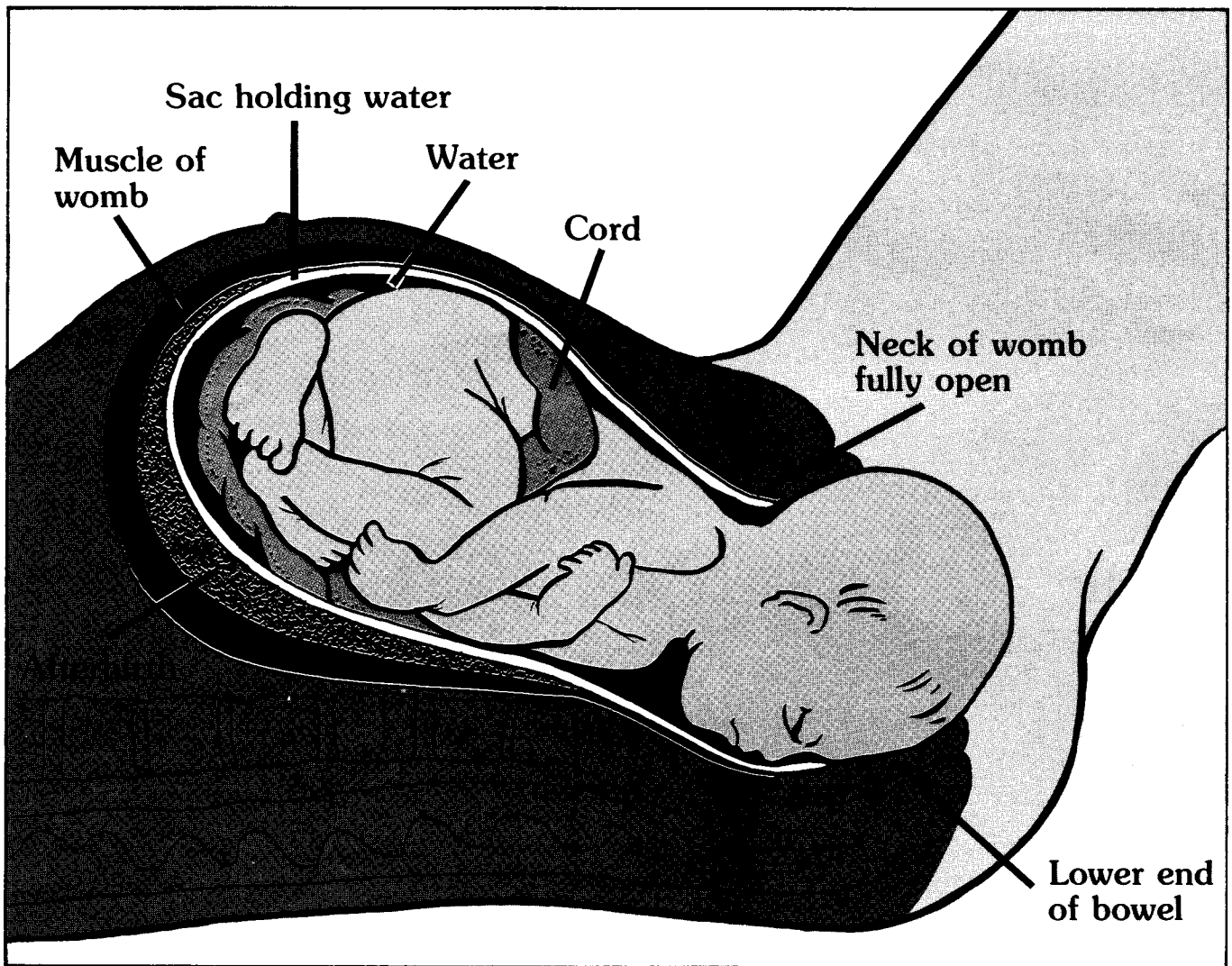


Diagram 8: Late second stage of labour.

Diagram 8 shows the late second stage with the top of the head partly outside the birth canal. The head is said to be "crowned". The birth of the baby's head is gently controlled by the doctor or midwife, in order to let the mother's skin stretch gradually. The mother can assist by taking short panting breaths, as learned previously, until the head is delivered.

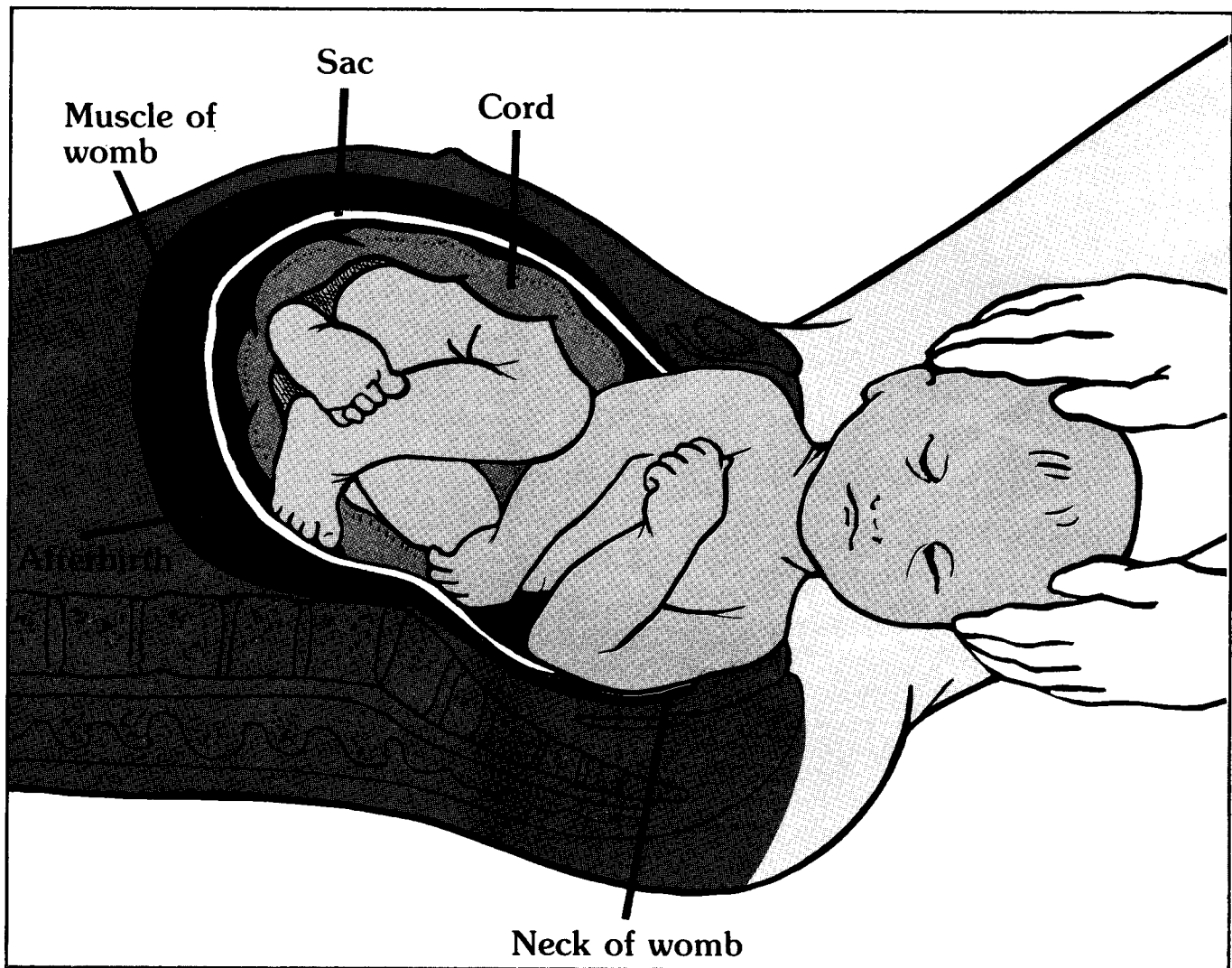


Diagram 9: Shoulders ready for delivery.

Diagram 9 shows the baby's head fully outside the birth canal. The head is born. It now turns sideways as the shoulders come down the birth canal, and within a few minutes the baby is born.

At this time the mother is given an injection. As a result, the womb (uterus) contracts further and expels the afterbirth (placenta).

Immediately after birth, the baby is labelled with the mother's name, and this label remains on the baby until she or he is discharged from hospital. At birth, the baby is usually a little blue in colour, but with the first cries it turns a healthy pink.

At birth, the cord throbs or pulsates at the rate the baby's heart is beating because, until this moment, the baby has relied on the blood passing through the cord for oxygen and nourishment. Now the baby can breathe for itself and is able to be given food. Thus as soon as the first breaths are taken, the cord stops throbbing. It is then tied and cut. This is not painful for mother or baby.

The new-born baby is usually covered with a white slippery material (called vernix) which has protected the baby's skin in the womb and assisted the passage during birth.

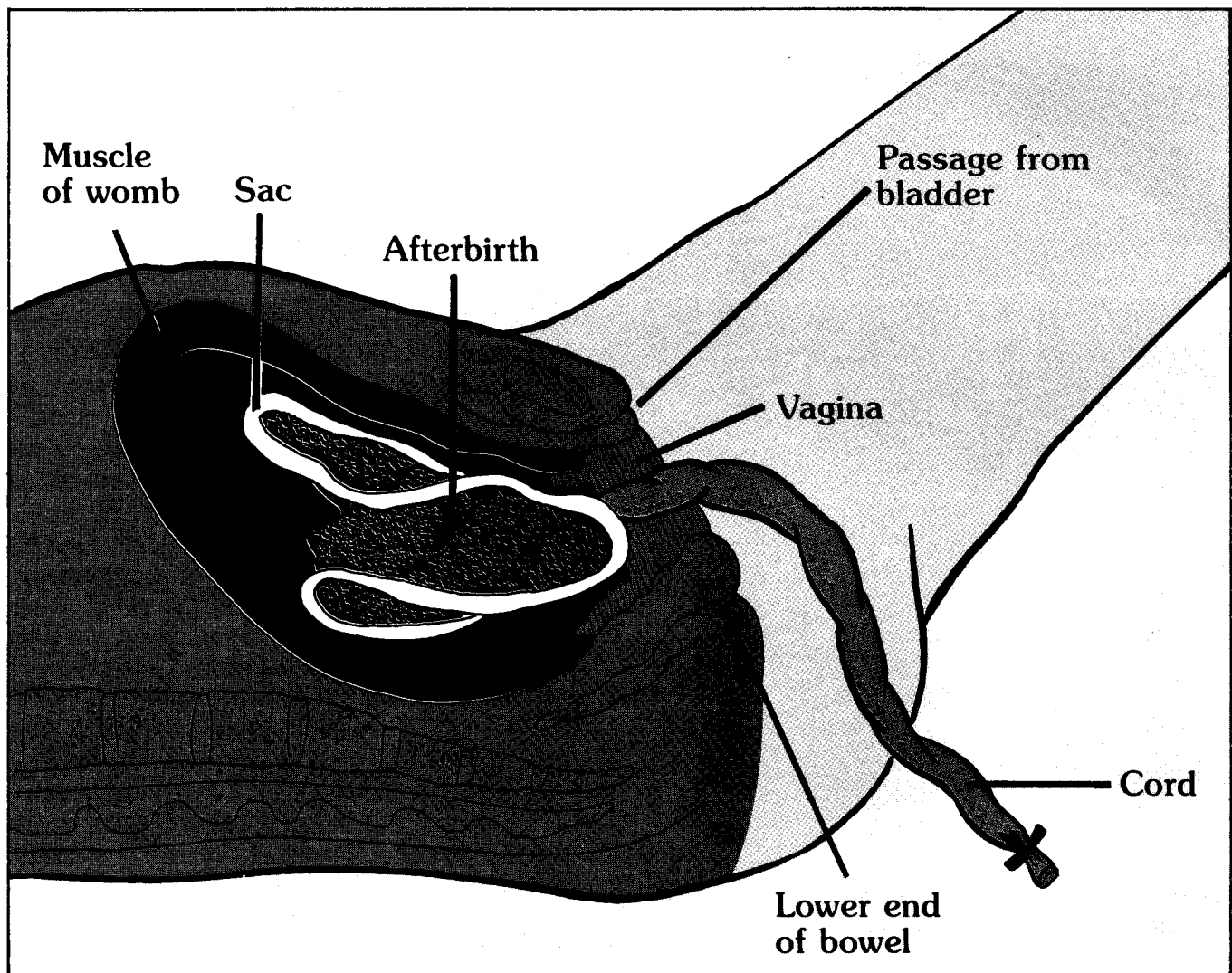


Diagram 10: Third stage of labour — delivery of afterbirth and sac.

After a few minutes the womb (uterus) will contract again. This is the third stage of labour, during which the afterbirth becomes detached, is pushed from the womb and is finally delivered by the mother bearing down as before. When this happens labour is over.

This short outline does not mention all the choices open to parents and doctors about how babies are to be born. It also leaves out the complications that can happen at any stage, as

well as what can be expected of the hospital staff. These important matters should be discussed with your doctor and those involved in your care.

The father can be a great help and comfort during pregnancy and, more particularly, labour. If both parents wish it, the doctors and nurses at all hospitals will be pleased for the father to stay throughout labour and normal deliveries.

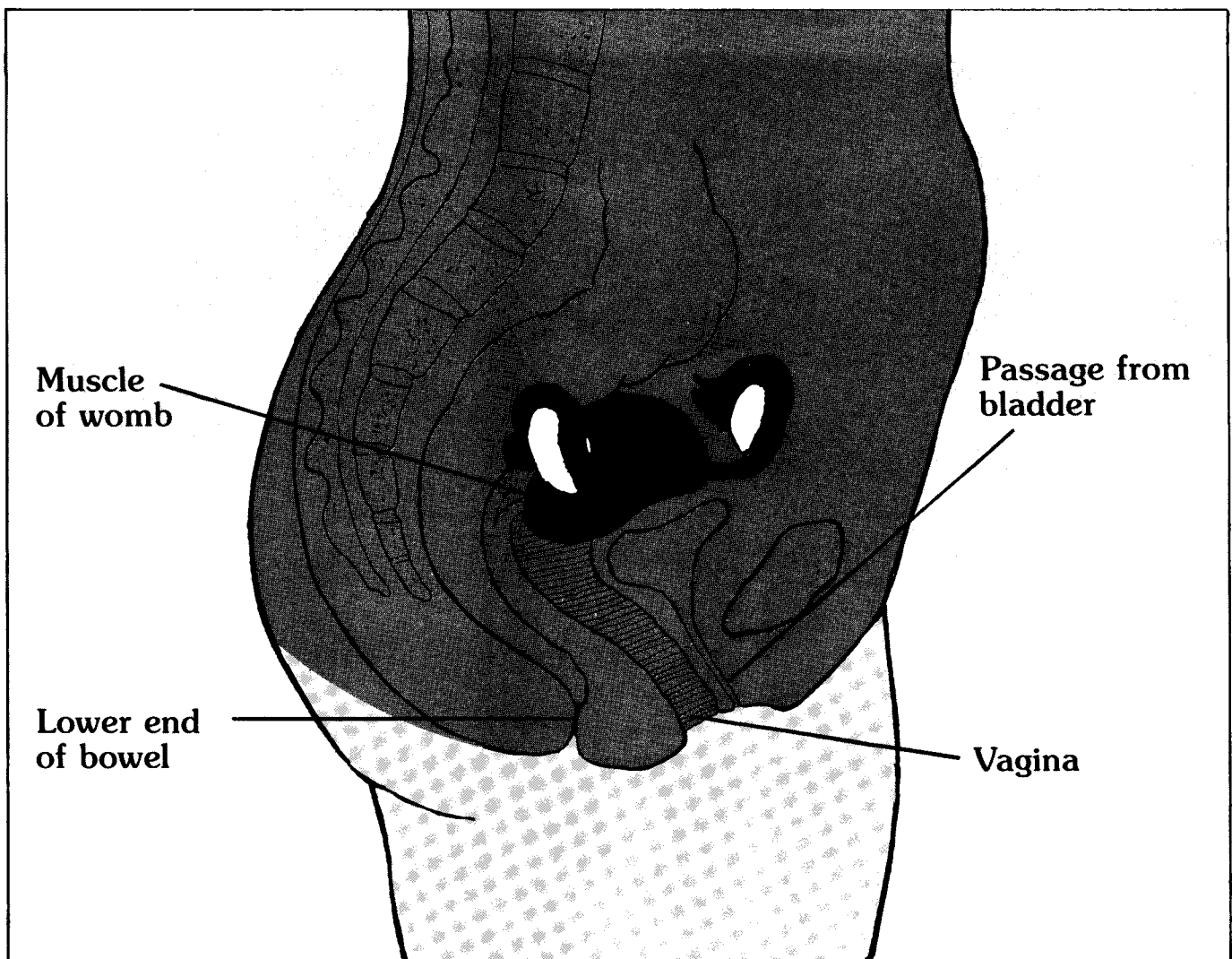


Diagram 11: Returning to normal.

The womb (uterus) returns to its normal size within six weeks of delivery. The large raw area left on the inside of the womb when the placenta comes away, heals very quickly. Once the bleeding has stopped, this process is complete. It is advisable to avoid sexual intercourse until the blood-stained discharge has stopped.

Various muscles are considerably stretched during pregnancy and labour, especially those of the tummy (abdomen) and pelvic floor (vagina). To help these muscles return to a more normal state, physical exercise is advised. For the abdomen, either sit-ups or leg-raising and for the pelvic floor, buttock-tightening, are very good.

Your local community health centre, baby health centre or maternity hospital can provide you with other free NSW Department of Health publications which tell more about having babies and then looking after them.

Contact:



or look under "Health Department" or "Hospitals — Public" in the phone book. "Health Department" is at the front of the phone book under "NSW State Government".

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