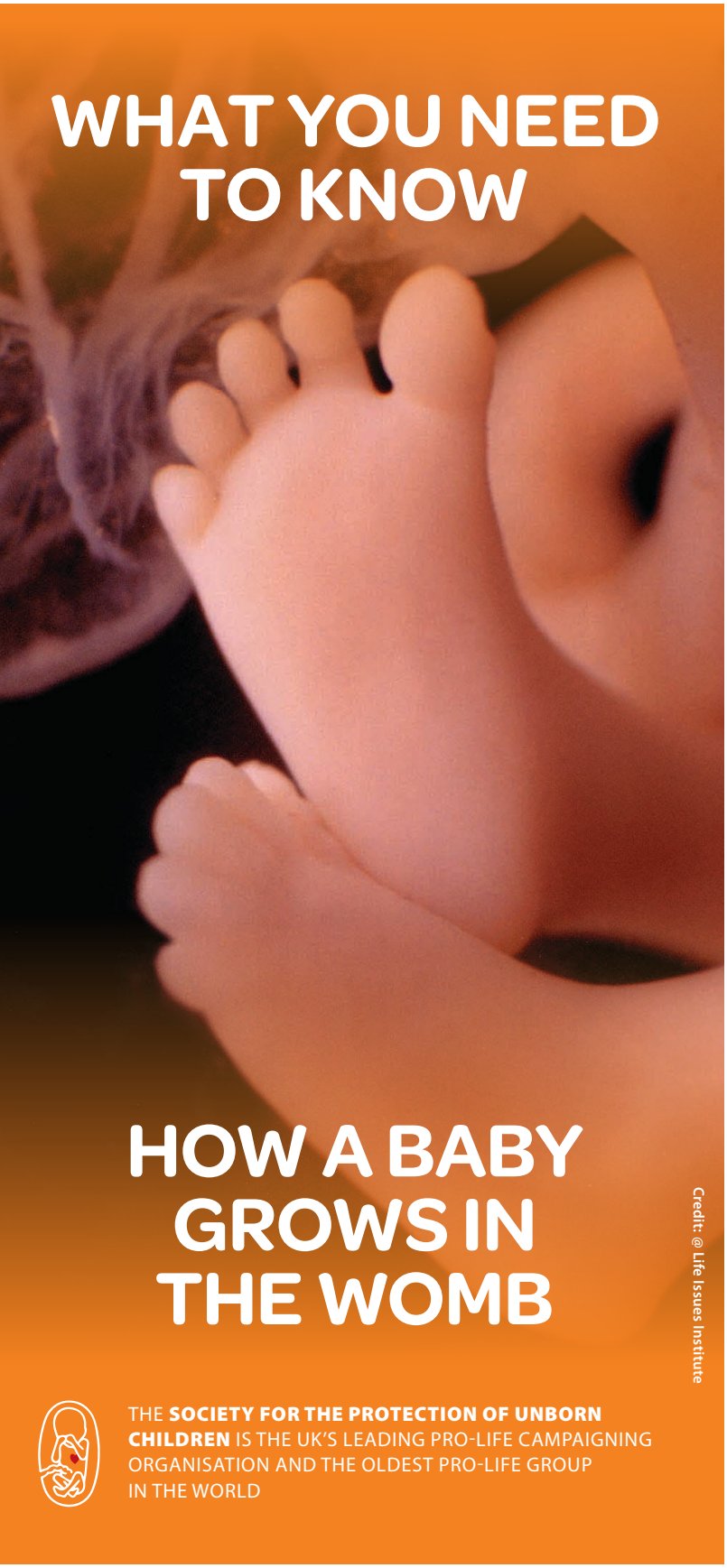
WHAT YOU NEED TO KNOW



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HOW A BABY GROWS IN THE WOMB

THE **SOCIETY FOR THE PROTECTION OF UNBORN CHILDREN** IS THE UK'S LEADING PRO-LIFE CAMPAIGNING ORGANISATION AND THE OLDEST PRO-LIFE GROUP IN THE WORLD

Day 1 (*14 days LMP*[1])

Conception – a new human life begins

- **Conception.** One of the hundreds of millions of sperm from the father fertilises the mother's egg cell. The result is a single-cell embryo called a **zygote**,[2] meaning, "yoked or joined together,"[3] and it is the first cell of the human body. The zygote contains 46 unique chromosomes (23 from each parent) with the entire genetic blueprint of a new individual including the sex, eye and hair colour.
- "Development begins at fertilisation when a sperm fuses with an ovum to form a zygote; this cell is the beginning of a new human being."[4]
- The zygote completes the first cell division approximately 24 to 30 hours after fertilisation.[5] The cells of the embryo then divide repeatedly as it journeys down the fallopian tube towards the uterus.

Week 1 (*3 weeks LMP*)

Known as "little mulberry", baby makes his or her way to the womb

- As early as 24 to 48 hours after fertilisation begins, pregnancy can be confirmed by detecting a hormone called "early pregnancy factor" or EPF in the mother's blood.[6] By about 3 days after fertilisation, the embryo contains 12 to 16 cells configured as a solid ball of cells and is called a **morula**[7] ("little mulberry").
- Approximately 3 1/2 to 4 days after fertilisation, the embryo completes its journey through the fallopian tube and enters the uterus.[8] It is now called a **blastocyst**, which contains embryonic stem (ES) cells.[9]
- By the end of the first week, the embryo has travelled extensively, multiplied from 1 cell to several hundred, dramatically changed its shape and complexity, and begun the process of finding a home for the next 38-40 weeks.[10]

Week 2 (*4 weeks LMP*)

Baby implants into the mother's womb

DANGER: 10,023 babies aborted at 3 and 4 weeks in 2020.[11]

- **Implantation** – the process whereby the early embryo embeds into the inner wall of the mother's uterus – begins about 6 days after fertilisation and is complete by about 12 days.[12]
- Once superficial implantation occurs, the embryo begins receiving nourishment directly from the cells lining the mother's uterus.[13]
- Approximately 8 days after fertilisation, cells from the growing embryo begin producing a hormone (hCG), which interrupts the normal menstrual cycle allowing pregnancy to continue.[14] Even this early, doctors can establish pregnancy by finding hCG in a pregnant woman's blood and urine.[15]

Week 3 (*5 weeks LMP*)

Baby's organs begin to take shape

DANGER: 44,509 babies aborted at this age.[16]

- By about 15 days (2 weeks, 1 day) following fertilisation, ES cells have divided and differentiated into three different **germ layers**, each of which gives rise to major components of specific body structures and organs.[17]
- The **endoderm** eventually becomes the gut. The **mesoderm** develops

into muscle, the skeletal system, some organs, and connective tissue. The **ectoderm** differentiates into the nervous system and skin.[18]

- By 3 weeks, early blood vessels form throughout the embryo as the network of the early circulatory system begins to take shape.[19] The brain is dividing into 3 primary sections called the **forebrain**, **midbrain**, and **hindbrain**.[20]

Week 4 (*6 weeks LMP*)

Baby's heart begins to beat

DANGER: 58,094 babies aborted at this age.[21]

- Only 3 weeks and 1 day after fertilisation, the heart begins to beat.[22] (One study has suggested it may be even earlier, at 16 days after fertilisation.[23])
- By 4 weeks, the heart typically beats between 105 and 121 times per minute.[24] The development of the digestive system is underway.[25] Upper and lower limb buds appear – the first visible indication of the developing arms and legs.[26]
- The respiratory system is progressing, as 2 primary lung buds form the beginning of the right and left lungs.[27]

Week 5 (*7 weeks LMP*)

Baby has eyes and a rapidly growing brain

DANGER: 36,160 babies aborted at this age.[11]

- Between 4 and 5 weeks, the brain continues its rapid growth and divides into five distinct sections.[28]
- By 5 weeks, the embryo's liver is producing blood cells – the first time blood cell formation begins inside the embryo.[29] Development of the stomach, oesophagus, pancreas, and the small and large intestines[30] are all underway.[31] The permanent kidneys appear.[32] The gonads (reproductive organs), are developing. Early reproductive cells called germ cells begin moving from the yolk sac into the gonads.[33] The beginnings of the eyes appear,[34] and facial features become evident as the early mouth takes shape.[35]

Week 6 (*8 weeks LMP*)

Baby has fingers and toes!

DANGER: 23,214 babies aborted at this age.[36]

- Although the mother won't feel it yet, the fetus begins to make spontaneous, reflex movements between 5 and 6 weeks.[37] Movements are essential for the normal development of bones and joints.[38]
- The fingers begin to form, followed by the toes a few days later.[39] The retinal pigment has formed, and the eyes are now obvious.[40]
- The diaphragm, the primary muscle used in breathing, is largely formed by 6 weeks.[41]

Week 7 (*9 weeks LMP*)

Pardon me! Baby starts hiccupping

DANGER: 13,140 babies aborted at this age.[42]

- Primitive brainwaves have been recorded as early as 6 weeks and 2 days.[43] The four-chambered heart is largely complete.[44] The embryonic heart rate peaks at 7 weeks and now beats approximately 167-175 times per minute.[45]
- By 6½ weeks, the elbows are distinct, the fingers are beginning to separate,[46] and hand movement can be seen.
- Hiccups have been observed by 7 weeks.[47] Leg movements can now be seen, along with a startle response.[48] In female embryos, the ovaries appear.[49]

Week 8 (*10 weeks LMP*)

Baby can play games – head, shoulders, knees and toes!

DANGER: 4005 babies aborted at this age.[50] 88% of abortions are performed at 10 weeks (LMP) or under.[51]

- From 7 to 7½ weeks, tendons attach leg muscles to bones,[52] and knee joints appear.[53] Also by 7½ weeks, the hands can be brought together, as can the feet.[54] The embryo also kicks, and will jump if startled.[55]
- At 8 weeks, the brain is highly complex[56] and constitutes almost half of the embryo's total body weight.[57] Growth continues at an extraordinary rate. One of the major control centres for the body – the hypothalamus – begins to take form. The hypothalamus eventually controls body temperature, heart rate, blood pressure, fluid balance, and the secretion of vitally important hormones by the pituitary gland.[58]
- The diaphragm muscle is completely formed[59] and intermittent breathing motions begin.
- The kidneys begin to produce urine, which is then released into the amniotic fluid.[60] In the male embryo, developing testes begin to produce and release testosterone.[61]
- The earliest sign of right or left-handedness begins around 8 weeks, with 75% of embryos already exhibiting right arm dominance.[62]
- On the skin, eyebrows begin to appear along with fine hairs around the mouth.[63]
- 8 weeks marks the end of the embryonic period. During this time, the human embryo has grown from a single cell into nearly 1 billion cells[64] forming over 4000 distinct anatomic structures. The embryo now possesses more than 90% of the structures found in the adult.[65] The developing human is called a **fetus**, which means "little one" or "unborn offspring."[66]

Week 9 (*11 weeks LMP*)

Baby starts sucking his or her thumb and can grasp an object

DANGER: 4052 babies aborted at this age.[67]

- The fetal period, which lasts until birth, begins. By 9 weeks, thumb sucking begins[68] and the fetus can swallow amniotic fluid.[69] The fetus can also grasp an object,[70] move the head forward and back, open and close the jaw, move the tongue, sigh,[71] and stretch.[72]
- Nerve receptors in the face, the palms of the hands, and the soles of the feet can sense light touch.[73] Vocal cords begin to develop.[74]
- External genitalia begin to distinguish themselves as either male or female.[75] In females, the uterus is visible[76] and immature reproductive cells are replicating within the ovaries.[77]

Week 10 (*12 weeks LMP*)

Baby has fingernails and toenails

DANGER: 3492 babies aborted at this age.[78]

- A burst of growth between 9 and 10 weeks increases body weight by over 75%.[79] Ossification is underway in most bones.[80]
- Most fetuses suck their thumbs (usually preferring the right).[81] Fingernails and toenails begin to develop,[82] and unique fingerprints appear.[83]

Week 11 (*13 weeks LMP*)

Baby can smile

DANGER: 3157 babies aborted at this age.[84]

- By 11 weeks, the nose and lips are completely formed.[85]
- The fetus can now produce complex facial expressions and, according to one group of researchers, is capable of smiling.[86]

Week 12 (*14 weeks LMP*)

Baby does a lot of growing

DANGER: 1869 babies aborted at this age.[87]

- Between 11 and 12 weeks, a second huge burst of growth occurs as weight increases by roughly 58%.[88]
- Arms have grown to approximately their final proportion relative to body size. Legs take a bit longer.[89]
- Bowel movements begin as early as 12 weeks and continue for about 6 weeks.[90]

Week 13-16 (*15 weeks LMP*)

Baby responds to painful stimuli

DANGER: 4046 babies aborted at this age[91]

- 13 weeks marks the beginning of the second trimester of pregnancy. The face continues to mature as fat deposits begin to fill out the cheeks[92] and teeth begin to grow.[93]
- At 14 weeks, gender dependent developmental differences appear for the first time. For instance, female fetuses exhibit mouth movement more frequently than males and this difference increases with advancing age.[94]
- By 16 weeks, the fetus produces many of the same hormones found in adults. Painful procedures (such as inserting a needle) trigger a hormonal stress response.
- As in newborns and adults, pain is followed by the release of cortisol and other hormones into the blood stream.[95]

4 to 5 Months (*16 to 20 Weeks – 18-22 weeks LMP*)

Baby starts practicing talking!

DANGER: 3386 babies aborted at this age.[96]

- The vast majority of neuron multiplication in the brain is complete by 16 weeks.[97]
- Beginning at 18 weeks, speaking-like movements can be detected in the larynx.[98]
- From 18 to 20 weeks, breathing patterns, body movements, and heart rate begin to follow daily cycles called circadian rhythms.[99] The distinct pattern of eye motions seen during the stage of sleep where dreaming occurs[100] begins between 18 and 21 weeks.[101]

5 to 6 Months (*20 to 24 Weeks – 22-26 weeks LMP*)

Baby can hear you!

DANGER: 648 babies aborted at this age.[102] 24 weeks marks the limit for most abortions

- By 20 weeks the cochlea, which is the organ of hearing, has reached adult size[103] within the fully developed inner ear. From now on, the fetus will respond to a growing range of sounds.[104] Hair begins to grow on the scalp.[105]
- By 21 to 22 weeks after fertilisation, the lungs gain some ability to breathe air.[106] This is considered the age of viability because survival outside the womb becomes possible.[107]

6 to 7 Months (*24 to 28 Weeks – 26-30 weeks LMP*)

Baby gains chubby cheeks, and is somersaulting in the womb

DANGER: 62 babies aborted at this age.[108]

- By 24 weeks, the eyelids reopen[109], and the fetus responds to sudden loud noises. 24-week fetuses have impressive lung development as primitive gas exchange now becomes possible in the event of premature birth.[110] The lungs produce a substance necessary for breathing after birth.[111]
- A massive spurt in brain growth consumes more than 50% of the energy used by the fetus and results in a brain weight increase between 400 and 500%.[112]
- By 26 weeks the sense of smell is functioning,[113] the eyes produce tears,[114] and the pupils respond to light as early as 27 weeks.[115]
- Wrinkles disappear as additional fat deposits form beneath the skin.[116] The fetus performs somersaults in the womb.[117]

7 to 8 Months (*28 to 32 Weeks – 30-34 weeks LMP*)

Baby practices breathing, ready for life on the outside

DANGER: 14 babies aborted at 31 weeks, and 42 at 32 weeks and over.[118]

- By 28 weeks, the fetus can distinguish between high and low-pitched sounds.[119]
- By 30 weeks, breathing movements are more common and occur 30 to 40% of the time in an average fetus.[120]

8 to 9 Months (*32 to 36 Weeks – 34-38 weeks LMP*)

Baby develops taste preferences, based on what mum is eating!

DANGER: Abortion is still legal for disability – up to birth.

- At 35 weeks, the fetus has a firm hand grasp.[121]
- Studies suggest that towards the end of prenatal development, the fetus has been developing preferences and tastes based on prenatal experience.[122]

9 Months to Birth (*36 Weeks through Birth) – 38-40 weeks LMP*)

Baby gains weight and is ready to be born

DANGER: 3,083 babies were aborted in total because of a disability in 2020.

- During the last 11 weeks of pregnancy, the fetus typically doubles in overall weight, while brain weight doubles in the last 9 weeks of pregnancy.[123]
- The fetus initiates labour [124] by releasing large amounts of a hormone called estrogen,[125] and the baby makes the journey from fetus to newborn.

Most references are taken from The Endowment for Human Development (EHD), a nonprofit organization dedicated to improving health science education and public health. https://www.ehd.org/index.php

[1] Age is given in two ways. The top number is days/weeks from fertilisation (fetal age) and the bottom is measured from the mother's last menstrual period, or LMP (gestational age). Gestational age is commonly used by doctors, but does not accurately reflect the age of the baby. Add 14 days to convert fetal age to gestational age.

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