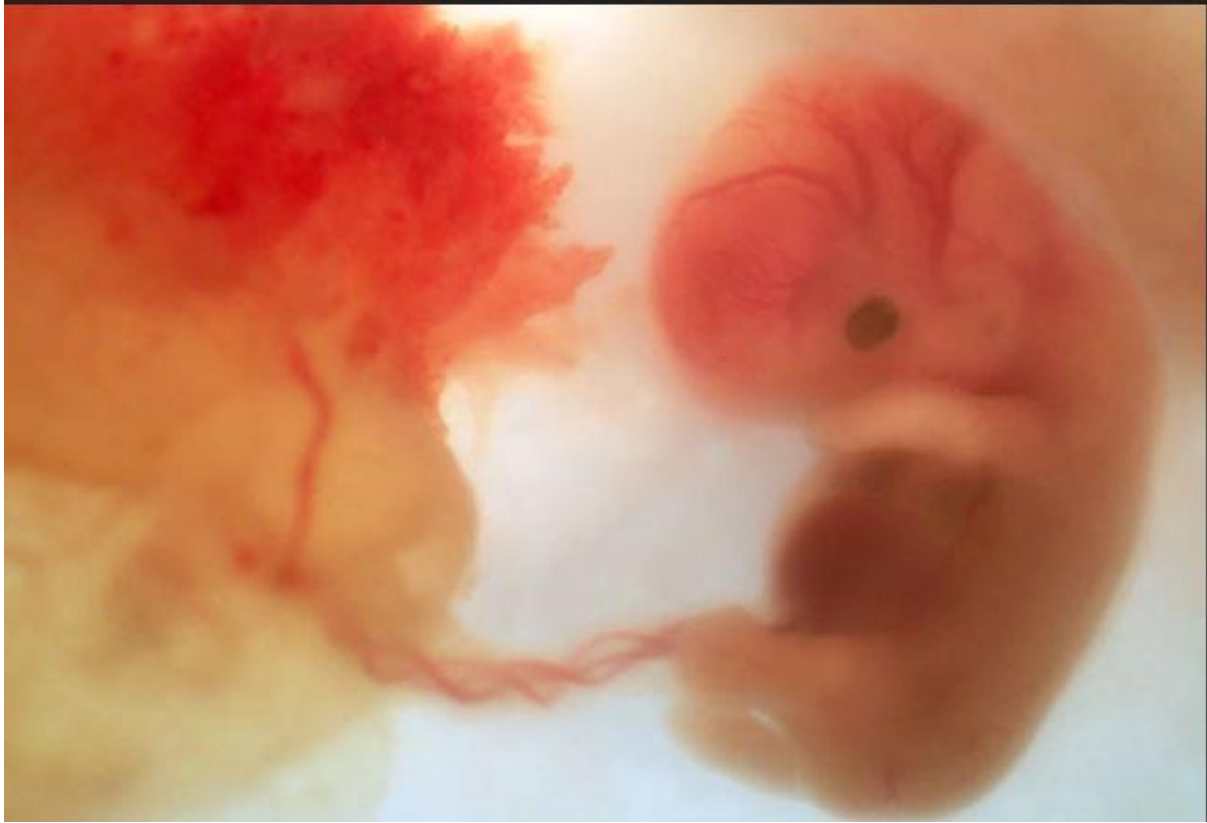


# Life and Beauty

## The Miracle of Human Life



Have you ever wondered how human life develops in the mother's womb? This publication (suitable for all ages) takes you on an incredible illustrated journey through the fascinating stages of a child's miraculous growth in the womb. Did you know that at seven and a half weeks the baby can bring their hands together and touch its fingers as well as hiccup? And did you know that at twenty seven weeks the baby can recognise different voices from outside the womb as well as songs and stories? Discover all of this and more as we consider the hidden beauty and wonder of human life.

How each of us began is truly amazing.

NOTE: This publication is suitable for all age groups. This booklet will detail the growth of the child in the womb from the first cell through to full development at nine months. In regards to the subjects of conception and birth, we leave these aspects to the discretion of parents. Towards the end of this publication you will also find what the Bible has to say on the issue of life in the womb.



## The First Month

Every human being begins life as a single cell (called a 'Zygote').

Although at this very first stage the baby is so very tiny, that little cell (about 100 microns [0.1mm], about the same diameter as a strand of hair) contains all the detailed instructions needed to build a unique human being. Factors such as the colouring of the hair, skin and eyes, whether the baby will be a boy or a girl, and what height and build they will go on to be are all predetermined by the genetic library of information contained in the baby's DNA. With this information all in place, the little single cell is very much alive ready to begin a very rapid development.

Soon the single cell splits into two, then the two cells double to four, then four to eight, eight to sixteen and so on. At this stage because the cell cluster looks a bit like a berry it is called the Morula (Latin for 'mulberry').

After about four days the growing baby (scientifically called an embryo) settles in a place near mummy's tummy called the womb. This is where the baby will grow in the days, weeks and months ahead. By this stage the little cluster of cells (0.2mm in size, about the diameter of a grain of sand) becomes hollow and fluid-filled, and is referred to as the Blastocyst. It is at this stage that the various cells are hurriedly being organised ready to form into the different parts of the new baby's body.

By twenty five days (just three and a half weeks after conception) the body is already developing rapidly. Head and trunk appear and tiny arm buds begin to form, followed by leg buds. The baby (now about the size of a pea) has early facial features, a brain, eyes, ears, mouth, kidneys, liver, an umbilical cord and a heart pumping blood.



## The Second Month

The second month sees very rapid growth. The embryo increases in size from around 5mm at four weeks to 40mm by the end of the eighth week (from the size of the pea to around the size of a plum). By six weeks tiny fingers appear, followed within days by the toes. By seven weeks the baby has its own unique set of individual fingerprints. No two sets of human fingerprints are ever the same.

By six weeks the eyes, which appeared in simple form in the first month, develop lens and retina, along with eyelids. The ears also continue to develop with the inner and outer ear present by seven weeks with its hearing and balancing mechanisms.

*Did you know?* At seven and a half weeks the baby can bring their hands together and touch its fingers as well as hiccup.

By forty five days (about six and a half weeks) the baby's skeleton is complete in cartilage form (harder bone grows later). It is at this stage that the little baby gains enough strength to start moving (although these movements will be too faint for mother to feel). Not only can the baby move at this stage but it can also feel and respond to touch.

We are still learning so much about all that goes on in the hidden place of the womb. We do know that at five weeks the baby has feeling around the mouth area, extending to the rest of the face in weeks six to seven. Weeks eight and nine the baby gains sensitivity to the palms of the hands and soles of the feet.

Around eight weeks the baby's cartilage skeleton begins to turn into bone. The body is essentially complete, and at this stage the baby is referred to as a foetus - a Latin term meaning "young, offspring."

*Did you know?* Latin or Greek-derived names are given to human beings at successive phases of their development, e.g. "zygote", (Greek, meaning, 'joined or yoked') for the newly-conceived, "neonate" for newborn baby (Greek, 'neo' meaning 'new', and Latin, 'natus' meaning 'born'), "adolescent" for growing-up teenager (from Latin 'adolescent' meaning 'coming to maturity'), and "geriatric" for a pensioner (Greek "gēras" meaning 'old age' and "iatros" meaning 'doctor'). These terms simply identify different stages in the human lifespan which begins at fertilisation.



### **The Third Month**

By the end of the twelfth week (three months) the baby measures almost 90mm (about the size of a lemon). The baby's face, at first broad, now becomes narrower; the eyes are closed for protection from about ten weeks until the sixth month.

At nine weeks the baby is well enough formed to bend its fingers round an object in the palm of its hand, curl its toes in response to touch on the sole of the foot, or bend its hips and knees to move away from a touching object. At twelve weeks the baby can close its fingers and thumb and can open its mouth in response to touch. It is at this stage we know that the baby can also feel pain and feel it more intensely at this stage of development (as fibres inhibiting pain are yet to be completed).

At eleven weeks the baby can swallow (helping baby prepare for feeding after birth), make complex facial expressions, smile and suck its thumb. Although surrounded by fluid, breathing movements have been detected as early as eleven weeks, helping the baby develop its respiratory organs. Furthermore, at eleven weeks, the baby is playing in the womb, moving its body and exploring its environment. Mother feels this movement some time later, at around fourteen to eighteen weeks, in an event called 'quickenings'.

### **The Fourth and Fifth Month**

By sixteen weeks (four months) the baby measures 140mm from crown to rump (about the size of a mango). The heart now busily pumps 30 litres of blood a day, and mother's body begins to adjust shape and expand to accommodate the growing baby. It is at this stage we can see outward signs of baby's growth - mother gains her 'baby bump'.

Four months and onwards the baby can respond to sounds with eye movements and 'blink-startle' responses. The baby hears sounds from the outside world as well as from the mother's heart and digestive system. Loud noises from the outside such as the slamming of a door or loud music reach the foetus and the baby can react to them. The baby can even be quite selective in what sounds it responds to, such as different types of music and different voices (such as the mother's or father's). It is also believed that the baby can respond to the little light that does make it through to them showing how alert and responsive the baby is at this stage.

*Did you know?* That around eighteen weeks ultrasounds show speaking movements in the baby's voice box.



### **The Fifth Month and Beyond**

After twenty weeks the baby is 190mm from crown to rump (about the size of a banana). Head hair, eyebrows, eyelashes and nails are all growing. Between this stage and birth the baby will gain weight and will develop an insulating layer of fat beneath the skin. He or she will also receive maternal antibodies against some infections as a temporary protection until the infant's own immune system is better developed.

Foetal activity is affected when the mother is tired or under stress. The baby is usually most notably active when the mother is lying down at night. The mother feels the baby's kicking and may notice sharp movements when the baby gets hiccups after drinking the amniotic fluid or practises its breathing movements.

*Did you know?* That at twenty seven weeks the baby's eyes are responding to light, and the baby can also recognise different voices from outside the womb as well as songs and stories.

In later pregnancy the foetus can show 'behavioural states' including waking, calm sleeping, and 'rapid eye movement sleep' which is associated with dreaming in adults. With space now getting limited the baby still has some room to manoeuvre inside the womb and actively seeks the position which makes it feel most comfortable. This can often result in the baby temporarily positioned in some very odd ways in its quest for comfort. Sleeping positions adopted in the womb are often carried over after birth has taken place.

And thus we have reached the point where baby's growth and development has made it to full term, and when the time is right, and if all goes well, baby will make its entrance into the world.

What an incredible journey! From the one-celled 'zygote' to the multi-million-celled infant and adult, every human being is a miracle! A truly distinct individual - full of personality, life and beauty!

*ivat crescat floreat*

(Latin: 'may it live, grow, [and] flourish')

Sources:

<https://www.spuc.org.uk/Article/383538/Human-development-of-the-unborn-child>



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### **What does the Bible teach about human life?**

Truly the wonder of human development in the womb a miracle to behold! That which is being formed is no mere random cluster of cells, but rather a living, and rather rapidly growing human life full of personality and potential. Modern science with all of its methods and discoveries only continues to reinforce this fact despite what some may argue.

Every stage of our pre-born growth is a wonder to behold and a testament to our great Creator - Almighty God - the Author of all life on earth. When embarking on the creation of mankind God declared these words, "Let us make man in our image, after our likeness" (Genesis 1:26). We therefore, as human beings, are literally created in the image of God. This truth sets us apart from the rest of God's creative work. We are not animals. We are human beings. We are indeed made in the image of God.

Dear reader, do always keep this in mind, that you are indeed a creative reflection of the God who made you. The Bible also declares of mankind, "So God created man in his own image, in the image of God created he him; male and female created he them." (Genesis 1:27) God has created us either male or female, we can only be one or the other, and we cannot change what we are. Boys will always be boys, and girls will always be girls.

The psalmist David, in the Old Testament declared, "Thou hast covered me in my mother's womb. I will praise thee; for I am fearfully and wonderfully made: marvellous are thy works; and that my soul knoweth right well. My substance was not hid from thee, when I was made in secret" (Psalm 139:13-15). Thus, despite being hid away from human eyes in those ancient times, David knew that, that which develops in the womb is indeed the miracle of human life.

Again in the Old Testament, God spoke these words to Jeremiah the prophet, "Before I formed thee in the belly I knew thee; and before thou camest forth out of the womb I sanctified thee, and I ordained thee a prophet unto the nations" (Jeremiah 1:5). Here we see clearly the dignity of humanity being attributed to Jeremiah even whilst he was in his mother's womb. Therefore, upon the authority of Holy Scripture (supported by scientific discovery) we can declare that the life that grows in the mother's womb is not only a wonder of creation but also truly a human being, a person made in the image of God. Their size and vulnerability does not diminish from this truth in any way. In fact it ought only to solidify our resolution to cherish and protect such innocence and frailty.

We must always keep these things in mind and close to our hearts. Man is made in the image of God. Life begins at conception. The child in the womb is indeed a child, a person, a human being. And that we, if we are noble, chivalrous, God-fearing and true ought to protect and preserve human life, even the lives of those still forming and yet to be born.

Jesus said, "Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind, and with all thy strength...and...thou shalt love thy neighbour as thyself. There is none other commandment greater than these" (Mark 12:30-31). The child in the womb, if it is indeed human, is therefore our neighbour. And if our neighbour, then we ought to love them as Jesus Christ commanded us to.

Love God and love our neighbour. These are the greatest commandments given to mankind.

*veritas vitæ magistra*

(Latin: 'truth is the teacher of life')

### **Some Good News Indeed**

The Christian Gospel is set apart from the other religions and philosophies of the world. Religion tells us to strive, work and earn our way into heaven and find favour with God. In contrast the Bible teaches, "For by grace are ye saved through faith; and that not of yourselves: it is the gift of God: Not of works, lest any man should boast" (Ephesians 2:8-9). If then we are not made right with God by our good deeds, then how can we find favour with our Creator?

There is a way, a way that Jesus described as 'narrow' found by few (Matthew 7:14). In order for us to discover and find ourselves on this 'narrow way' we must be willing to accept some vital truths. Firstly the Bible teaches that, "All have sinned, and come short of the glory of God" (Romans 3:23). God's standard is perfection, and all of us from the least to the greatest fall way short of this standard. If God is perfect and sinless should we really expect anything else?

We are in fact breakers of God's law (the Ten Commandments, found in Exodus chapter 20). If we have lied at any point in our lives then we are liars in God's sight. If we have ever stolen anything regardless of value then we are a thief. If we have ever used God's name as a curse word then we are guilty of taking the Lord's name in vain (blasphemy) to name just a few examples of where we fail to meet God's perfect standard.

Furthermore, the Bible teaches, "For the wages of sin is death; but the gift of God is eternal life through Jesus Christ our Lord" (Romans 6:23). Like any good judge, Almighty God must punish wrongdoing. "Shall not the Judge of all the earth do right?" (Genesis 18:25). God's judgement on our sin is everlasting punishment in a place the Bible calls Hell. Jesus said that we should fear God's justice and coming judgement upon our sin; "And fear not them which kill the body, but are not able to kill the soul: but rather fear him which is able to destroy both soul and body in hell" (Matthew 10:28).

Truly, "It is a fearful thing to fall into the hands of the living God" (Hebrews 10:31). However there is good news. The Bible says, "But God commendeth his love toward us, in that, while we were yet sinners, Christ died for us" (Romans 5:8). "For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life. For God sent not his Son into the world to condemn the world; but that the world through him might be saved." (John 3:16-17). God, in His great love for this world, sent His only begotten Son, the Lord Jesus Christ, to die on the cross for our sins. Jesus took our punishment for us, and shed His precious blood so that we could go free on the day of judgement. Jesus said, "I am the way, the truth, and the life: no man cometh unto the Father, but by me." (John 14:6) It is through Jesus Christ alone that God offers a way for us to be saved. This is God's gift to us, eternal life through Jesus Christ our Lord.

How do we receive the gift of God? The Bible says, "Repent ye therefore, and be converted, that your sins may be blotted out" (Acts 3: 19). This is the only way we can be made right with God. What are we to repent of or turn towards? And what are we to be converted to? The Bible says, "That if thou shalt confess with thy mouth the Lord Jesus, and shalt believe in thine heart that God hath raised him from the dead, thou shalt be saved. For with the heart man believeth unto righteousness; and with the mouth confession is made unto salvation." (Romans 10:9-10). Salvation is by faith alone in Christ alone.

Receiving salvation is something you can do right now if you are willing to come God's way. You must realise and accept that you are a hell deserving sinner in the eyes of a holy, pure and righteous God. Secondly you must grasp the fact that neither you nor anyone else can in any way save you or help you attain a right standing with God and entrance into God's perfect heaven. And thirdly you must come to understand that Jesus Christ is your only hope of salvation for time and for all eternity.

Do you accept these truths? If you can honestly say that you do then I urge you to obey the gospel command and confess the Lord Jesus Christ as your own and personal Saviour right now. Place all of your hope and trust in Him alone for salvation and believe with all your heart that He rose from the dead on the third day. Jesus said, "I am the resurrection, and the life: he that believeth in me, though he were dead, yet shall he live: And whosoever liveth and believeth in me shall never die. Believest thou this?" (John 11:25-26)

Do you believe Jesus' words? Do you believe the gospel - the good news? Have you called upon the name of the Lord for salvation? If indeed you have, then God will help you to become more like Jesus your Saviour day by day. I would urge you to begin reading God's word through from cover to cover (Authorised King James Version) and begin a prayer life asking God to help and guide you in all areas of your life. I would also encourage you to find a good Bible believing church with a focus on sound biblical teaching that will help you grow as a new believer. If we can be of any help, then do please contact us through our website.

Thank you for taking the time to read this publication.

*post tenebras lux*  
(Latin: 'after darkness, light')

"Lo, children are an heritage of the LORD: and the fruit of the womb is his reward. As arrows are in the hand of a mighty man; so are children of the youth. Happy is the man that hath his quiver full of them" (Psalm 127:3-5).