



THE SCIENCE OF THE EMBRYO DEVELOPMENT

This unique information on the development of the embryo, which was written down long time ago, in the Vedic scripture called Śrīmad-Bhāgavatam, more than 5000 years ago.

The below is a translation in English from the Vedic scripture called Śrīmad-Bhāgavatam (SB), which was written more than 5000 years ago. This is yet another of the millions of proofs that Lord Krishna is the Supreme person (God) and the Vedic knowledge comes from Him.

The scientists have only recently discovered how the embryo develops using advanced equipment. Still the ignorant scientists do not fully understand the details which have been available in the Vedic scriptures for more than 5000 years.

WHO ARRANGES FOR THE SOUL TO ENTER THE WOMB OF A PARTICULAR MOTHER?

SB 3.31.1 – The Personality of Godhead said: Under the supervision of the Supreme Lord and according to the result of his work, the living entity, the soul, is made to enter into the womb of a woman through the particle of male semen to assume a particular type of body.

Based on the actions taken by Souls in their previous lives (Karma), Lord Krishna arranges for each soul to enter the womb of a mother in a particular universe, on a particular planet, in a particular country, in a particular City, in a particular Street, in a particular house, to a particular mother. Exactly based on what the soul deserves.

Everything is done by the supervision of the Supreme Personality of Godhead. Material nature supplies the body, but it does so under the direction of the Supersoul. It is said in Bhagavad-gītā that a living entity is wandering in this material world on a chariot made by material nature. The Supreme Lord, as Supersoul, is always present with the individual soul. He directs material nature to supply a particular type of body to the individual soul according to the result of his work, and the material nature supplies it. Here one word, *retah-kaṇāśrayaḥ*, is very significant because it indicates that it is not the semen of the man that creates life within the womb of a woman; rather, the living entity, the soul, takes shelter in a particle of semen and is then pushed into the womb of a woman. Then the body develops. There is no possibility of creating a living entity without the presence of the soul simply by sexual intercourse. The materialistic theory that there is no soul and that a child is born simply by material combination of the sperm and ovum is not very feasible. It is unacceptable.

DAY 1 TO 30

SB 3.31.2 – On the first night, the sperm and ovum mix, and on the fifth night the mixture ferments into a bubble. On the tenth night it develops into a form like a plum, and after that, it gradually turns into a lump of flesh or an egg, as the case may be.

MONTH 1 TO 3

SB 3.31.3 – In the course of a month, a head is formed, and at the end of two months the hands, feet and other limbs take shape. By the end of three months, the nails, fingers, toes, body hair, bones and skin appear, as do the organ of generation and the other apertures in the body, namely the eyes, nostrils, ears, mouth and anus.

MONTH 4 TO 6

SB 3.31.4 – Within four months from the date of conception, the seven essential ingredients of the body, namely chyle, blood, flesh, fat, bone, marrow and semen, come into existence. At the end of five months, hunger and thirst make themselves felt, and at the end of six months, the fetus, enclosed by the amnion, begins to move on the right side of the abdomen.

MONTH 6 AND ONWARDS

SB 3.31.5 – Deriving its nutrition from the food and drink taken by the mother, the fetus grows and remains in that abominable residence of stools and urine, which is the breeding place of all kinds of worms.

SB 3.31.6 – Bitten again and again all over the body by the hungry worms in the abdomen itself, the child suffers terrible agony because of his tenderness. He thus becomes unconscious moment after moment because of the terrible condition.

Purport: In the *Mārkaṇḍeya Purāṇa* it is said that in the intestine of the mother the umbilical cord, which is known as *āpyāyanī*, joins the mother to the abdomen of the child, and through this passage the child within the womb accepts the mother's assimilated foodstuff. In this way the child is fed by the mother's intestine within the womb and grows from day to day. The statement of the *Mārkaṇḍeya Purāṇa* about the child's situation within the womb is exactly corroborated by modern medical science, and thus the authority of the *purāṇas* cannot be disproved, as is sometimes attempted by the *Māyāvādī* philosophers.

Since the child depends completely on the assimilated foodstuff of the mother, during pregnancy there are restrictions on the food taken by the mother. Too much salt, chili, onion and similar food is forbidden for the pregnant mother because the child's body is too delicate and new for him to tolerate such pungent food. Restrictions and precautions to be taken by the pregnant mother, as enunciated in the *smṛti* scriptures of Vedic literature, are very useful. We can understand from the Vedic literature how much care is taken to beget a nice child in society. The *garbhādhāna* ceremony before sexual intercourse was compulsory for persons in the higher grades of society, and it is very scientific. Other processes recommended in the Vedic literature during pregnancy are also very important. To take care of the child is the primary duty of the parents because if such care is taken, society will be filled with good population to maintain the peace and prosperity of the society, country and human race.

THE FOOD THE MOTHER EATS AFFECTS THE FETUS

The food eaten by the mother makes a big difference to the sufferings of the fetus. She should not eat salty, bitter (citric), and pungent (meat) foods. Nor drink alcohol, smoke, and need to be very careful with any medicines.

SB 3.31.7 – Owing to the mother's eating bitter, pungent foodstuffs, or food which is too salty or too sour, the body of the child incessantly suffers pains which are almost intolerable.

SB 3.31.8 – Placed within the amnion and covered outside by the intestines, the child remains lying on one side of the abdomen, his head turned towards his belly and his back and neck arched like a bow.

Purport: All descriptions of the child's bodily situation in the womb of the mother are beyond our conception. It is very difficult to remain in such a position, but still the child has to remain. Because his consciousness is not very developed, the child can tolerate it, otherwise he would die. That is the benediction of *māyā*, who endows the suffering body with the qualifications for tolerating such terrible tortures.

SB 3.31.9 – The child thus remains just like a bird in a cage, without freedom of movement. At that time, if the child is fortunate, he can remember all the troubles of his past one hundred births, and he grieves wretchedly. What is the possibility of peace of mind in that condition?

Purport: After birth the child may forget about the difficulties of his past lives, but when we are grown-up we can at least understand the grievous tortures undergone at birth and death by reading the authorized scriptures like *Śrīmad-Bhāgavatam*. If we do not believe in the scriptures, that is a different question, but if we have faith in the authority of such descriptions, then we must prepare for our freedom in the next life; that is possible in this human form of life. One who does not take heed of these indications of suffering in human existence is said to be undoubtedly committing suicide. It is said that this human form of life is the only means for crossing over the nescience of *māyā*, or material existence. We have a very efficient boat in this human form of body, and there is a very expert captain, the spiritual master; the scriptural injunctions are like favorable winds. If we do not cross over the ocean of the nescience of material existence in spite of all these facilities, then certainly we are all intentionally committing suicide.

SB 3.31.10 – Thus endowed with the development of consciousness from the seventh month after his conception, the child is tossed downward by the airs that press the embryo during the weeks preceding delivery. Like the worms born of the same filthy abdominal cavity, he cannot remain in one place.

Purport: At the end of the seventh month the child is moved by the bodily air and does not remain in the same place, for the entire uterine system becomes slackened before delivery. The worms have been described here as *sodara*. *Sodara* means “born of the same mother.” Since the child is born from the womb of the mother and the worms are also born of fermentation within the womb of the same mother, under the circumstances the child and the worms are actually brothers. We are very anxious to establish universal brotherhood among human beings, but we should take into consideration that even the worms are our brothers, what to speak of other living entities. Therefore, we should be concerned about all living entities.

SB 3.31.11 – The living entity in this frightful condition of life, bound by seven layers of material ingredients, prays with folded hands, appealing to the Lord, who has put him in that condition.

THE SOUL PRAYS FOR LIBERATION

It's due to contact with the material body that the soul forgets his original constitutional position of being eternal, full of bliss, full of knowledge, and part of the Supreme Lord, Lord Krishna. The knowledgeable soul prays while in the womb.

SB 3.31.12 – The human soul says: I take shelter of the lotus feet of the Supreme Personality of Godhead, who appears in His various eternal forms and walks on the surface of the world. I take shelter of Him only, because He can give me relief from all fear and from Him I have received this condition of life, which is just befitting my impious activities.

SB 3.31.13 – I, the pure soul, appearing now bound by my activities, am lying in the womb of my mother by the arrangement of māyā. I offer my respectful obeisances unto Him who is also here with me but who is unaffected and changeless. He is unlimited, but He is perceived in the repentant heart. To Him I offer my respectful obeisances.

SB 3.31.14 – I am separated from the Supreme Lord because of my being in this material body, which is made of five elements, and therefore my qualities and senses are being misused, although I am essentially spiritual. Because the Supreme Personality of Godhead is transcendental to material nature and the living entities, because He is devoid of such a material body, and because He is always glorious in His spiritual qualities, I offer my obeisances unto Him.

SB 3.31.15 – The human soul further prays: The living entity is put under the influence of material nature and continues a hard struggle for existence on the path of repeated birth and death. This conditional life is due to his forgetfulness of his relationship with the Supreme Personality of Godhead. Therefore, without the Lord's mercy, how can he again engage in the transcendental loving service of the Lord?

SB 3.31.16 – No one other than the Supreme Personality of Godhead, as the localized Paramatma, the partial representation of the Lord, is directing all inanimate and animate objects. He is present in the three phases of time-past, present and future. Therefore, the conditioned soul is engaged in different activities by His direction, and in order to get free from the threefold miseries of this conditional life, we have to surrender unto Him only.

SB 3.31.17 – Fallen into a pool of blood, stool and urine within the abdomen of his mother, his own body scorched by the mother's gastric fire, the embodied soul, anxious to get out, counts his months and prays, "O my Lord, when shall I, a wretched soul, be released from this confinement?"

Purport: The precarious condition of the living entity within the womb of his mother is described here. On one side of where the child is floating is the heat of gastric fire, and on the other side are urine, stool, blood and discharges. After seven months the child, who has regained his consciousness, feels the horrible condition of his existence and prays to the Lord. Counting the months until his release, he becomes greatly anxious to get out of the confinement. The so-called civilized man does not take account of this horrible condition of life, and sometimes, for the purpose of sense gratification, he tries to kill the child by methods

of contraception or abortion. Unserious about the horrible condition in the womb, such persons continue in materialism, grossly misusing the chance of the human form of life.

The word *kṛpaṇa-dhīḥ* is significant in this verse. *Dhī* means “intelligence,” and *kṛpaṇa* means “miserly.” Conditional life is for persons who are of miserly intelligence or who do not properly utilize their intelligence. In the human form of life the intelligence is developed, and one has to utilize that developed intelligence to get out of the cycle of birth and death. One who does not do so is a miser, just like a person who has immense wealth but does not utilize it, keeping it simply to see. A person who does not actually utilize his human intelligence to get out of the clutches of *māyā*, the cycle of birth and death, is accepted as miserly. The exact opposite of miserly is *udāra*, “very magnanimous.” A *brāhmaṇa* is called *udāra* because he utilizes his human intelligence for spiritual realization. He uses that intelligence to preach Kṛṣṇa consciousness for the benefit of the public, and therefore he is magnanimous.

SB 3.31.18 – My dear Lord, by Your causeless mercy I am awakened to consciousness, although I am only ten months old. For this causeless mercy of the Supreme Personality of Godhead, the friend of all fallen souls, there is no way to express my gratitude but to pray with folded hands.

SB 3.31.19 – The living entity in another type of body sees only by instinct; he knows only the agreeable and disagreeable sense perceptions of that particular body. But I have a body in which I can control my senses and can understand my destination; therefore, I offer my respectful obeisances to the Supreme Personality of Godhead, by whom I have been blessed with this body and by whose grace I can see Him within and without.

SB 3.31.20 – Therefore, my Lord, although I am living in a terrible condition, I do not wish to depart from my mother’s abdomen to fall again into the blind well of materialistic life. Your external energy, called deva-maya, at once captures the newly born child, and immediately false identification, which is the beginning of the cycle of continual birth and death, begins.

SB 3.31.21 – Therefore, without being agitated any more, I shall deliver myself from the darkness of nescience with the help of my friend, clear consciousness. Simply by keeping the lotus feet of Lord Visnu in my mind, I shall be saved from entering into the wombs of many mothers for repeated birth and death.

MONTH 9 AND ONWARDS

SB 3.31.22 – Lord Kapila continued: The ten-month-old living entity has these desires even while in the womb. But while he thus extols the Lord, the wind that helps parturition propels him forth with his face turned downward so that he may be born.

SB 3.31.23 – Pushed downward all of a sudden by the wind, the child comes out with great trouble, head downward, breathless and deprived of memory due to severe agony.

Purport: The word *kṛcchreṇa* means “with great difficulty.” When the child comes out of the abdomen through the narrow passage, due to pressure there the breathing system completely stops, and due to agony the child loses his memory. Sometimes the trouble is so severe that the child comes out dead or almost dead. One can imagine what the pangs of birth are like. The child remains for ten months in that horrible condition within the abdomen, and at the end of ten months he is forcibly pushed out. In *Bhagavad-gītā* the Lord points out that a person who is serious about advancement in spiritual consciousness should always consider the four pangs of birth, death, disease and old age. The materialist advances in many ways, but he is unable to stop these four principles of suffering inherent in material existence.

SB 3.31.24 – The child thus falls on the ground, smeared with stool and blood, and plays just like a worm germinated from the stool. He loses his superior knowledge and cries under the spell of maya.

WHY WE FORGET OUR PAST LIVES?

Once the body comes out from the womb, the superior knowledge, the soul has, is covered by the illusionary energy of Lord Krishna, called maya.

CHILDHOOD

SB 3.31.25 – After coming out of the abdomen, the child is given to the care of persons who are unable to understand what he wants, and thus he is nursed by such persons. Unable to refuse whatever is given to him, he falls into undesirable circumstances.

SB 3.31.26 – Laid down on a foul bed infested with sweat and germs, the poor child is incapable of scratching his body to get relief from his itching sensation to say nothing of sitting up, standing or even moving.

SB 3.31.27 – In his helpless condition, gnats, mosquitoes, bugs and other germs bite the baby, whose skin is tender, just as smaller worms bite a big worm. The child, deprived of his wisdom, cries bitterly.

WHY BABIES CRY?

After being in the womb, the babies reveal the traumatic situation they experienced in the womb by crying out. In addition, adults are unable to understand the needs of babies, and the babies are unable to convey what they need; therefore, the babies cry out.

BOYHOOD

SB 3.31.28 – In this way, the child passes through his childhood, suffering different kinds of distress, and attains boyhood. In boyhood also he suffers pain over desires to get things he can never achieve. And thus, due to ignorance, he becomes angry and sorry.

SB 3.31.29 – With the growth of the body, the living entity, in order to vanquish his soul, increases his false prestige and anger and thereby creates enmity towards similarly lusty people.

WHY CHILDREN ARE INNOCENT?

Children are called innocent, because they are not contaminated by greed, lust, anger, ego, hate, and pride. But as they grow up, due to their association with adults and other contaminated children, they become contaminated and greed, lust, anger, hate, ego, and pride develop.

SB 3.31.30 – By such ignorance the living entity accepts the material body, which is made of five elements, as himself. With this misunderstanding, he accepts nonpermanent things as his own and increases his ignorance in the darkest region.

Purport: The expansion of ignorance is explained in this verse. The first ignorance is to identify one's material body, which is made of five elements, as the self, and the second is to accept something as one's own due to a bodily connection. In this way, ignorance expands. The living entity is eternal, but because of his accepting nonpermanent things, misidentifying his interest, he is put into ignorance, and therefore he suffers material pangs.

ADULTHOOD

SB 3.31.31 – For the sake of the body, which is a source of constant trouble to him and which follows him because he is bound by ties of ignorance and fruitive activities, he performs various actions which cause him to be subjected to repeated birth and death.

WHAT CAUSES REPEATED BIRTH AND DEATH?

Sinful activities like meat eating, alcohol, drugs, smoking, gambling, lying, hatred, ego, attachments, atheism, bad association, and so on ensures the soul will once again be placed in the hell known as the womb.

SB 3.31.32 – If, therefore, the living entity again associates with the path of unrighteousness, influenced by sensually minded people engaged in the pursuit of sexual enjoyment and the gratification of the palate, he again goes to hell as before.

SB 3.31.33 – He becomes devoid of truthfulness, cleanliness, mercy, gravity, spiritual intelligence, shyness, austerity, fame, forgiveness, control of the mind, control of the senses, fortune and all such opportunities.

SB 3.31.34 – One should not associate with a coarse fool who is bereft of the knowledge of self-realization and who is no more than a dancing dog in the hands of a woman.

CONCLUSION

The miserable condition of material existence is not only felt when we come out of the womb of the mother, but is also present within the womb. Miserable life begins from the moment the living entity begins to contact his material body. Unfortunately, we forget this experience and do not take the miseries of birth very seriously. In *Bhagavad-gītā*, therefore, it is specifically mentioned that one should be very alert to understand the specific difficulties of birth and death. Just as during the formation of this body we have to pass through so many difficulties within the womb of the mother, at the time of death there are also many difficulties. As described in the previous chapter, one has to transmigrate from one body to another, and the transmigration into the bodies of dogs and hogs is especially miserable. But despite such miserable conditions, due to the spell of *māyā* we forget everything and become enamored by the present so-called happiness, which is described as actually no more than a counteraction to distress.

If a grown man were put into such a condition as the child within the abdomen, completely entangled in all respects, it would be impossible for him to live even for a few seconds. Unfortunately, we forget all these sufferings and try to be happy in this life, not caring for the liberation of the soul from the entanglement of birth and death. It is an unfortunate civilization in which these matters are not plainly discussed to make people understand the precarious condition of material existence.

After birth the child may forget about the difficulties of his past lives, but when we are grown-up we can at least understand the grievous tortures undergone at birth and death by reading the authorized scriptures like *Śrīmad-Bhāgavatam*. If we do not believe in the scriptures, that is a different question, but if we have faith in the authority of such descriptions, then we must prepare for our freedom in the next life; that is possible in this human form of life. One who does not take heed of these indications of suffering in human existence is said to be undoubtedly committing suicide. It is said that this human form of life is the only means for crossing over the nescience of *māyā*, or material existence. We have a very efficient boat in this human form of body, and there is a very expert captain, the spiritual master; the scriptural injunctions are like favorable winds. If we do not cross over the ocean of the nescience of material existence in spite of all these facilities, then certainly we are all intentionally committing suicide.

It is said that when a woman is having labor pains she promises that she will never again become pregnant and suffer from such a severely painful condition. Similarly, when one is undergoing some surgical operation he promises that he will never again act in such a way as to become diseased and have to undergo medical surgery, or when one falls into danger, he promises that he will never again make the same mistake. Similarly, the living entity, when put into a hellish condition of life, prays to the Lord that he will never again commit sinful activities and have to be put into the womb for repeated birth and death. In the hellish condition within the womb the living entity is very much afraid of being born again, but when he is out of the womb, when he is in full life and good health, he forgets everything and commits again and again the same sins for which he was put into that horrible condition of existence.

The evolutionary process of different types of bodies is something like that of a fructifying flower. Just as there are different stages in the growth of a flower—the bud stage, the blooming stage and the full species of bodies in gradual evolution, and there is systematic progress from the lower species of life to the higher. The human form of life is supposed to be the highest, for it offers consciousness for getting out of the clutches of birth and death. The fortunate child in the womb of his mother realizes his superior position and is thereby distinguished from other bodies. Animals in bodies lower than that of the human being are conscious only as far as their bodily distress and happiness are concerned; they cannot think of more than their bodily necessities of life—eating, sleeping, mating and defending. But in the human form of life, by the grace of God, the consciousness is so developed that a man can evaluate his exceptional position and thus realize the self and the Supreme Lord.

The miseries of material existence begin from the very day when the spirit soul takes shelter in the ovum and sperm of the mother and father, they continue after he is born from the womb, and then they are further prolonged. We do not know where the suffering ends. It does not end, however, by one's changing his body. The change of body is taking place at every moment, but that does not mean that we are improving from the fetal condition of life to a more comfortable condition. The best thing is, therefore, to develop Kṛṣṇa consciousness. Here it is stated, *upasādita-viṣṇu-pādaḥ*. This means realization of Kṛṣṇa consciousness. One who is intelligent, by the grace of the Lord, and develops Kṛṣṇa consciousness, is successful in his life because simply by keeping himself in Kṛṣṇa consciousness, he will be saved from the repetition of birth and death.