



# prāṇasāvāṣā

quarterly newsletter of jeevan, india



## From the Director's Desk...

Dear Friend,

I am glad to meet you through our first e-news letter, *prāṇasāvāṣā*. On 12<sup>th</sup> December 2017, Times of India carried an article stating a total of 15.6 million (1.56 Crore) abortions took place across India in 2015. This is alarming. The number of innocent lives being snuffed out in India is much more than all the lives lost in World War I or the Jews who died in holocaust between 1941 and 1945. But yet we are uneasily silent about it. Through *prāṇasāvāṣā*, we would like to bring out the latest news in saving these little weak lives one at a time.

Godfrey Rajkumar,  
Director - Jeevan, India

## Fetal development

**Dr. Mercy Rumya Florence**

*DGO, FFM (Fellowship in Fetal Medicine)*

Have you ever wondered how you were formed in your mother's womb? When one sperm cell out of the million sperm cells from your dad and the egg from your mother fused, a miracle happened. You were formed! Amazing. You became a separate living human being. From then on you developed further and further; and you were born one day. Let us learn the very stages.

A fetus is formed when a sperm fuses with

## LifeStory

Sunitha (Name changed for privacy) was working as a supervisor in a company. She developed relationship with a young man, who promised to marry her; but deserted her and married another woman. Dejected and pregnant, she met Anbu, our Social Worker. Anbu strongly feels that every life is precious. She counselled Sunitha.

Even though Sunitha's situation was awkward, since she did not have a husband, Anbu assured her that her baby was very precious. She delivered a baby boy and named him Jaswanth.

Finding a house for her was challenging. But she got a place on low budget. She does not feel comfortable in that place as the landlord keeps questioning her background and past. She has no other choice to relocate as the rents are not affordable to her.

Anbu has encouraged her with nutritional foods and fruits at the monthly clients meetings which Anbu holds.

Recently Sunitha received a sewing machine. She was given stitching lessons and now earns Rs. 200 per day by making bags. Her son is one year old now.

If you wish to partner with us, please write to us -  
[jeevansavinglives@gmail.com](mailto:jeevansavinglives@gmail.com)

the ovum. We have forty weeks in a pregnancy. The first 2 weeks of gestation is before conception that is for ovulation and the fusion of sperm and ovum. The first 2 weeks after conception is known as the germinal stage and the next 6 weeks post conception is known as the embryonic period, and the time from the ninth week until birth is known as the fetal period. Urine pregnancy tests will be positive around 4-5 weeks from the last menstrual period. Henceforth the weeks that I mention correspond to the gestational age of the fetus.



**Week 5:** The brain, spine, and heart have begun to form. By the end of the week the heart will be pumping blood and the heartbeat can be heard.

**Week 6:** The embryo is the size of a pea. The eyes, nose and limbs are taking shape

**Week 7:** Movement of the embryo can be detected by ultrasound. The trachea and bronchi of the lungs have formed

**Week 9:** Earliest reflexes begin to emerge and the fetus begins to make reflexive motions with his arms and legs.

**Week 10: Fingerprints** are being formed and bone cells are replacing cartilage

**Week 11:** The fetus is starting to have breathing movements. It can open its mouth and swallow.

**Week 12:** Thyroid hormones and insulin are secreted. Urine is starting to form

**Week 13:** All major organs are formed now

but they are still immature

**Week 14:** The fetus's toenails are appearing. The gender may sometimes be seen

**Week 16-17:** Hearing is beginning to form

**Week 19:** The ears, nose and lips are now recognizable

**Week 20:** The fetus is covered in fine hair

**Week 21:** The fetus is now able to suck and grasp, and may have bouts of hiccups.

**Week 26:** The fetus can respond to sounds that occur in the mother's surroundings. It's eyelids can open and close

**Week 28:** The fetus has eyelashes and it's skin is red and covered with vernix caseosa a waxy substance that is believed to act as a protective film with anti-infective and waterproofing properties.

**Week 32-33:** The fetus is forming muscle and storing body fat. The distal **femoral epiphysis ossification** center can usually be seen in 72% of fetuses at 33 weeks

Upto 36 weeks the fetus is considered preterm. 37-40 weeks of pregnancy is considered the term period

The baby can be born anytime during the term period. A first time mother usually starts feeling the baby movements between the 22-24 weeks. A second time mother may start to feel the movements as early as the 16<sup>th</sup> week

Wow! This is the amazing and interesting process through which you were formed in your mother's womb and was born one day. The you continued to grow and mature into who you are today.

Fetal Development Chart

Developmental stage	Embryonic Stage										Fetal Stage										
Gestational Age (Weeks)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Conception																					
Implantation																					
Developing Organisms																					
Central Nervous System																					
Heart																					
Liver																					
Lungs																					
Stomach																					
Intestine																					
Bladder																					
Uterus																					
External genitalia																					

The red bars in the table show the gestational age when different organ systems are most sensitive to major birth defects in that organ system. The pink bars show the gestational age when different organ systems are sensitive to less serious defects and minor malformations.