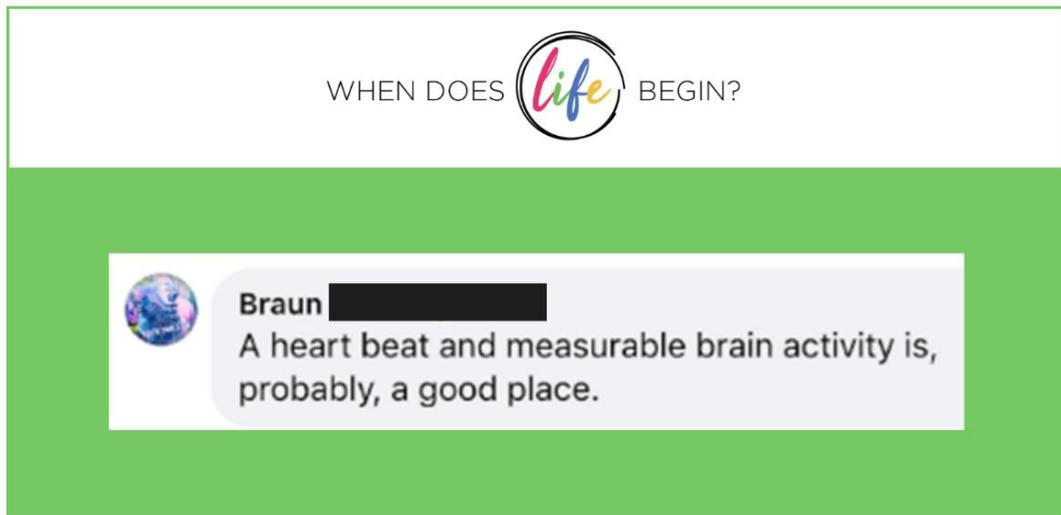


Life Begins at Heartbeat



Braun, we can see brainwave activity as early as 5-6 weeks in utero and the heart begins beating at around 21 days. However, science supports the idea that life begins at conception. When the sperm and egg fuse, they create a human being with its own unique set of DNA. **DNA is the identifier of life, which is why life must be protected from conception.**



Gary, current science pegs the start of the heartbeat at around 21 days following conception.

The National Center for Biotechnology Information (NCBI) is a division of the National Library of Medicine (NLM) at the National Institutes of Health (NIH). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3279166/>

Interestingly, a study by the British Heart Foundation (BHF) at the University of Oxford even suggests that **rudimentary functioning may begin as early as 16 days** post fertilization. <https://www.ox.ac.uk/.../2016-10-11-first-our-three...>

The heartbeat can be detected by vaginal ultrasound around 5 - 6 weeks. **However, a heartbeat is not the true measure of life.** From a biological standpoint, **human life begins at conception.** When the egg and sperm fuse, a unique person is created with its own set of DNA — separate from that of its mother and father.

Dr. Jerome LeJeune, professor of genetics at the University of Descartes in Paris, was the discoverer of the chromosome pattern of Down syndrome. Dr. LeJeune testified to the United States Senate Judiciary Subcommittee, "after fertilization has taken place a new human being has come into being." He stated that this "is no longer a matter of taste or opinion," and "not a metaphysical contention, it is plain experimental evidence." He added, "Each individual has a very neat beginning, at conception."

The following exchange with Evelyn is long but contains a number of common arguments about a baby at the earliest stages of development.

WHEN DOES  BEGIN?

Evelyn [REDACTED]
When Does Life Begin Agreed. I personally think even though a couple of dividing cells are already a lifeform scientifically seen, it's not a human being until the heart starts beating at around week 6 to 8. Therefore I will always feel like the pill after is okay. Most miscarriages happens from week 2 to 7. It's the bodies way to get rid of anything that couldn't sustain life. But I respect what you're saying. I just think you can take it to far. Scientifically sperm are already lifeforms. Catholic church used to forbid condoms.

Evelyn, a sperm is a "lifeform" to use your terminology, but it is not scientifically a human being. It is not a complete 46 chromosome human being. However, at conception a **biologically** unique human being with its own complete 46 chromosome DNA - **genetically separate** from their mother or father is formed. Nothing further genetically will be added. Only time and nourishment are needed. The new human being is the same genetically at the moment of conception as when the heart begins to beat. The heartbeat is simply another milestone of development just as puberty will mark another immense physical change along the lifespan of a human.

WHEN DOES  BEGIN?

Evelyn [REDACTED]
When Does Life Begin I studied medicine. I understand all of this. During fertilization, the sperm and egg unite in one of the fallopian tubes to form a zygote. Then the zygote travels down the fallopian tube, where it becomes a morula. Once it reaches the uterus, the morula becomes a blastocyst. The blastocyst then burrows into the uterine lining. So it isn't until week 4 it changes from a blastocyst to an embryo. The whole point I'm trying to make here is that if you make women feel bad about taking the pill after because of what the simple cell life being could become you're taking it to far. Everything you see on this earth developed out of a single cell being. I think you don't realize you are arguing with someone that is on your side. I'm against abortions. The time to prevent is before you get pregnant. However things don't work out like people want all the time and from a medical standpoint until week 5 all that you got is a lifeform of the complexity of a paramecium. Yes eventually it would have turned into a human being. But you also make women that had a miscarriage feel bad. I lost my first one at around week 5. Doctors said it probably was the bodies way of getting rid of something that couldn't survive. Instead of making people feel bad about loosing or aborting from week 3 to 5 please consider most states still allow abortions up to 28 weeks. That's not okay. Babies as young as week 21 have survived. Or worse states like Colorado, that aborts until 9 month old. We all need to pull on the same string. Wanna save blastocysts or Babies?

Evelyn, our desire is never to make anyone feel bad and we definitely agree with you that the time for prevention is before a woman gets pregnant. However, for an issue as important as the protection of human lives our laws must be based on objective scientific truth and logic. **Emotion is not a strong foundation to**

protect ANY of our rights. As you went through the terminology of human development you noted the progression that simply takes place via time and nourishment. There is nothing new added genetically after conception. Medical textbooks are clear on that point. Development terminology is simply that - words used to clarify the points of development just as later we used terms like infant, toddler, preteen, adolescent, adult, etc. The terminology does not signify a change in genetic identity.

Did you know that most birds are protected by the Migratory Bird Treaty Act? The protection extends to the eggs. Our laws regarding the protection of birds recognize the truth that the eggs are the beginning of the birds' lives. This is despite the fact that the contents of an egg consist of a formless, indistinguishable substance. It is logically inconsistent not to recognize this same beginning with a human life.

Regarding your contention that a five-week-old embryo has the complexity of a paramecium, that is not accurate. At five weeks following conception, the baby's heart and brain have begun. Other organs and the baby's face are starting to form. <https://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/prenatal-care/art-20045302#:~:text=Seven%20weeks%20into%20your%20pregnancy,beginnings%20of%20the%20retinas%20fo rm.>

Miscarriages are a completely separate situation from abortion. Miscarriages are not intentional acts.

Please consider the following:

Professor Micheline Matthews-Roth, Harvard University Medical School: "It is incorrect to say that biological data cannot be decisive.... It is scientifically correct to say that an individual human life begins at conception.... Our laws, one function of which is to help preserve the lives of our people, should be based on accurate scientific data."