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#4: Ectopic pregnancy is when a fertilized egg grows in a place other than the uterus, like the fallopian tube. Certain factors, like pelvic infections, or surgery, can increase the risk of this happening. There are some things that can make this more likely, like if a woman had it happen before. If a woman suspects they have an ectopic pregnancy, they should seek medical attention immediately, as this condition can be quite hazardous if left untreated. It may cause internal bleeding, and even damage the surrounding organs. An ectopic pregnancy can't continue normally and can be life-threatening if the egg keeps growing in the wrong place. Early diagnosis and treatment can help to prevent serious complications.

#5: Various factors can contribute to fertility problems, including age, ovulation disorders, endometriosis, hormonal imbalances, low sperm count, and genetic factors. A range of interventions are available to address these issues, including lifestyle changes, medications, surgery, and assisted reproductive technology (ART). Each of these interventions has its benefits and drawbacks, and the most suitable option for addressing fertility problems will depend on the individual's underlying causes, personal preferences, and overall health status. Lifestyle changes can offer a non-invasive approach to improving fertility, although their effectiveness varies and may not be appropriate for everyone. Medications like clomiphene citrate and testosterone replacement therapy can help promote ovulation and increase sperm count, but they may carry

risks of side effects and multiple pregnancies. Surgery can be useful for correcting structural issues, but it may be invasive and expensive. ART procedures such as IUI (Intrauterine Insemination), IVF (In Vitro Fertilization), and ICSI (intracytoplasmic Sperm Injection) offer options for individuals who cannot conceive naturally, but they can be time-consuming, costly, and may carry risks of multiple pregnancies and other complications. In conclusion, identifying the most appropriate intervention for fertility problems requires careful consideration of various factors, including the individual's medical history, lifestyle, and preferences. Consulting with a healthcare professional specializing in reproductive health can help determine the best action.

#9: The umbilical cord is a crucial structure that serves as the vital link between the developing fetus and the placenta in the mother's womb during pregnancy. It plays a pivotal role in the transportation of essential nutrients, oxygen, and waste products between the fetus and the mother. Several aspects of the development and functionality of the umbilical cord are noteworthy, including its formation from the connecting stalk, its role in facilitating nutrient and oxygen transportation, its protective function, its dimensions, and the timing of its detachment after delivery. The development of the umbilical cord commences with the connecting stalk, which initially connects the embryo to the developing placenta. The connecting stalk undergoes extensive growth and differentiation, resulting in the formation of the umbilical cord, which is comprised of two arteries and one vein enclosed in a gelatinous substance called Wharton's jelly. The umbilical cord undergoes a complex and orchestrated process of development and differentiation, which involves the contribution of diverse cell types and tissues, including blood vessels and stem cells, to form a functional structure that facilitates the exchange of nutrients,

oxygen, and waste products. Ultimately, the umbilical cord plays a critical role in ensuring the proper growth and development of the fetus.

#6: Multiple pregnancies, characterized by the development of more than one fetus, are associated with various factors that may elevate the likelihood of their occurrence. Such factors include advanced maternal age, family history, fertility treatments, race, and prior instances of multiple pregnancies. The precise mechanisms underlying the interplay of these factors in the occurrence of multiple pregnancies remain incompletely understood, although some hypotheses suggest that advanced maternal age may be associated with increased ovulation of more than one egg. Fertility treatments may also contribute to the incidence of multiple pregnancies through the implantation of multiple embryos. Furthermore, research suggests that African-American women may possess genetic factors that predispose them to give birth to twins. While multiple pregnancies can bring immense happiness, they also present elevated risks for both the mother and the fetuses, needing specialized medical attention throughout the pregnancy and delivery process. I think people should really stick to having a baby the natural way, considering the surplus of problems that may arise from attempting to conceive in other ways.

#10: The amniotic sac and fluid play a critical role in supporting a healthy pregnancy by safeguarding and nourishing the developing fetus. Following fertilization, the sac, which is filled with fluid, forms and grows to accommodate the growing fetus. The fluid cushions the fetus and maintains a stable temperature while also serving as a barrier against infections. However, complications can arise with the amniotic sac and fluid. For example, having either too much or too little fluid can result in issues such as preterm labor and growth problems. Rupturing of the

sac, where the fluid leaks out prematurely, can cause infections and other problems. Infections can occur when bacteria enter the sac, leading to complications such as preterm labor.

Additionally, if the amniotic fluid becomes discolored with meconium (baby poop lol), it can indicate fetal distress and lead to respiratory difficulties after birth. Regular prenatal care and monitoring can help recognize and treat issues with the amniotic sac and fluid, promoting the best possible health outcomes for both mother and fetus.

#11: Embryonic development is a highly intricate and tightly regulated process involving multiple stages. It begins with rapid cell division and progresses to the specialization of cells into distinct types and the formation of three primary germ layers, which are responsible for producing all tissues and organs in the body. Next, organogenesis takes place, where the germ layers differentiate to create specific organs, such as the heart and lungs. Finally, tissues and organs undergo maturation until the organism is ready for delivery or hatching. This elaborate process plays a crucial role in shaping an organism's adult form and function. Consequently, any disturbance or disruption during embryonic growth can lead to significant developmental abnormalities and birth defects. It is, in my opinion- a fascinating process.

#Video: "Tyrone Hayes + Penelope Jagessar Chaffer: The toxic baby?"

During their TED talk, biologist Tyrone Hayes and filmmaker Penelope Jagessar Chaffer discuss the effects of the herbicide atrazine on frog development and its potential impact on human health. Hayes shares his research findings, revealing that atrazine exposure during embryonic development can lead to various developmental abnormalities in frogs, such as deformities, hermaphroditism, and complete sex reversal, due to its hormonal disruption effect, particularly

on the production of estrogen and testosterone. The speakers express their concerns about the long-term implications of atrazine exposure for human health, as it is a widely used herbicide that can be found in drinking water (yuck!). Chaffer's documentary, *Toxic Baby*, further explores these issues, particularly as they relate to her daughter's health. Hayes and Chaffer assert that current chemical regulations are insufficient to protect human health, as they rely on industry self-regulation and insufficiently consider the risks of developmental exposure. They advocate for a precautionary approach to chemical regulation that prioritizes human health over economic interests.