

How the Immune System Affects Fertility and Miscarriage

Outline

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- In what ways are our immune system and reproductive system linked?
- Why does the woman's immune system not react to the presence of a fetus?
- Autoimmune diseases-how do they impact fertility and miscarriage or premature birth?
- What are the most common auto-immune diseases? (lupus, rheumatoid arthritis, multiple sclerosis, type 1 diabetes, Crohn's Disease, Hashimoto's disease, celiac disease, endometriosis, premature ovarian insufficiency)
- Are autoimmune mechanisms involved in infertility disorders such as premature ovarian failure or diminished ovarian reserves, endometriosis, polycystic ovary syndrome (PCOS), unexplained infertility, and repeatedly unsuccessful IVF attempts and may be responsible for the pathophysiology of preeclampsia or spontaneous abortions?
- Endometriosis:
 - What percentage is caused by our auto-immune reaction?
 - How to diagnose?
 - How to treat?
- Premature ovarian insufficiency:
 - What percentage is caused by our auto-immune reaction?
 - How to diagnose?
 - How to treat?
- Impact of auto-immune diseases on pregnancy complications, miscarriage, and still births.
- What is antiphospholipid syndrome (APS) and do they impact fertility or miscarriage?
 - What are the symptoms of ASP?
 - How to diagnose and treat APS?
- Mucosal immunity of the female genital tract? Female immune system reacting to sperm.
- What are anti-seminal/sperm antibodies in men and women?
- Can a woman be allergic to sperm?
- What role does our microbiome play in our immunity?
- What role does our microbiome play in fertility?
- What are natural killer cells?
 - Does a high level of natural killer cells in a woman make it less likely that she will get pregnant and carry the pregnancy to term?
- Does infertility treatment, such as IVF, affect a woman's immune system?

