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Partner compatibility: the immune system and reproductive success

The idea of **biological compatibility** has been around for years but is there any scientific basis? Research exploring how the immune system contributes to reproductive success suggest there is some truth to the theory. Strong evidence indicates that the female immune response plays a key role in **conception and embryo implantation**. A dynamic immune activation occurs in the cervix and uterus every time the female body is exposed to male seminal fluid, and the consequences have a profound effect on fertility and the likelihood of pregnancy. Special types of immune cells support robust placental and healthy fetal development, and protect from **recurrent implantation failure, miscarriage and pregnancy disorders such as preeclampsia**. Remarkably, this immune response can vary between couples and is affected by the degree of genetic difference between the male and female partner, as well as environmental and lifestyle factors. This new insight is changing how medical science considers the **immune system in fertility**, and indicates that use of immune-suppressive drugs in infertility treatment is likely to cause more harm than good.

Key selected references:

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