

Anti-sperm Antibody Testing

What are anti-sperm antibodies?

Anti-sperm antibodies are antibodies directed against the sperm. Under normal conditions the immune system develop antibodies to help protect our immune system against illnesses. However, in the case of anti-sperm antibodies the body develops and directs specific antibodies against the sperm which is the wrong approach and can cause negative side effects upon the health status of the sperm and can cause infertility in a man.

In general, among infertile men, about 10% will be diagnosed with having anti-sperm antibodies, a condition that can significantly decrease their chances of pregnancy. Normally, the testes contain a natural barrier, known as the blood-testes barrier. This barrier acts as a protective layer that prevents immune cells from being able to access sperm within the male reproductive tract.

Yet, this barrier can be broken, through injury to the reproductive tract, thereby allowing the immune cells to come into contact with the sperm and recognize them as foreign bodies, which they are. Once the barrier is broken, immune cells are able to detect the presence of sperm due to their unique antigen surface.

This triggers a response by the immune system to treat sperm as an "invader" and attack it. Antibodies then attach themselves to different parts of the sperm and interfere with male fertility in a number of ways. Normally there are three different types of antibodies produced by the body that can influence the wellbeing of the sperm. Antibodies that are located on the tail of sperm can cause the sperm to become immobilized or clump together.

When antibodies are found on the head of sperm, they can prevent the sperm from being able to efficiently make its way through a woman's cervical mucus to the egg. Interestingly enough, it is also possible for a woman to develop anti-sperm antibodies in her cervical mucus, which will only serve to hinder attempts at conception



even more. It is thought that anti-sperm antibodies in cervical mucus could account for as much as 40% in unexplained infertility cases. Under normal conditions, sperm that does manage to make it to the egg encounter a great deal of difficulty properly binding and fertilizing the egg due to antibodies attached to its head. The etiology for the production of anti-sperm antibodies are several. Some of these factors include:

- Injury to the testicles
- Undescended testicles
- Twisting of the testicles
- Infection such as testiculitis
- Testicular cancer
- Testicular biopsy
- Varicocele associated with hestasis to the testes

It has been documented very clearly that men who have undergone a vasectomy reversal are particularly prone to developing this fertility problem. Publish reports put to 70% of men who have had their vasectomy reversed will develop anti-sperm antibodies. How can Anti-Sperm Antibodies be treated?

