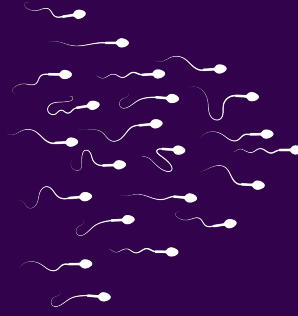


# Prolistem®

AZOOSPERMIA TO HAPPINESS



IT'S NOT JUST A SUPPLEMENT, IT'S SCIENCE

## WHAT IS PROLISTEM®?

**Prolistem®** is a fertility support solution that can significantly enhance the chances of sperm production for men with **non-obstructive azoospermia** (primary testicular failure). **Prolistem®** is a patented and FDA-certified formula.

Our innovative six-month treatment course has yielded impressive success rates, with 48% of patients achieving successful outcomes. Among them, 23% of patients had sperm detected in their semen, while 25% of patients had successful surgical sperm extractions following the completion of **Prolistem®** course<sup>1</sup>.

## HOW DOES PROLISTEM® WORK?

Similar to rebooting a smartphone to fix functional issues, **Prolistem®** facilitates the "Spermatogenesis Restarting Process" to restore sperm production by temporarily lowering testosterone levels. Our comprehensive six-month course includes two phases. The initial phase decrease testosterone levels to create an optimal environment for sperm production, while the second phase restores normal testosterone levels and promotes healthy sperm production.



## WHY PROLISTEM®?

**Prolistem®** offers a natural and effective solution free from harmful chemicals and synthetic ingredients. Our product results from extensive scientific research and development by a team of experts, ensuring its safety and effectiveness. Consider **Prolistem®** as the primary choice for azoospermia, providing a viable alternative to potentially hazardous medical interventions. Contact us today to learn more about how **Prolistem®** can benefit your patients.



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## ANDROLOGY RESEARCH AND FINDINGS

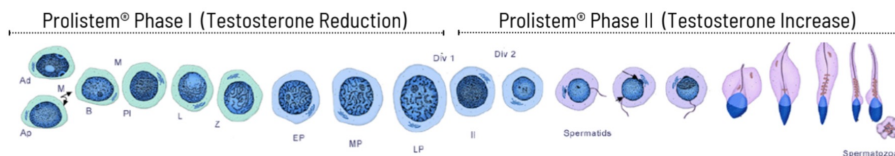
- Hormones are responsible for the maintenance of sperm production in normal conditions; however, in abnormal conditions, testosterone inhibits spermatogonial differentiation<sup>2,3</sup>.
- Testosterone is involved in the blockage of spermatogonia stem cells in abnormal conditions such as azoospermia<sup>4</sup>.
- Spermatogonia stem cells in the seminiferous tubules do not need testosterone to divide<sup>4</sup>.
- Studies have shown that testosterone is critical for the late stages of spermatogenesis<sup>4</sup>.
- Suppression of testosterone restores the spermatogenesis process, and in some cases, spermatogenesis was maintained after the cessation of hormonal treatment and restored fertility<sup>5</sup>.
- In many cases, short-term suppression of testosterone can restore spermatogonial stem cell division<sup>5</sup>.
- Research has shown that spermatogonial stem cells can be obtained from the testicular tissue of non-obstructive azoospermic patients, which provides hope for restoring fertility<sup>6</sup>.
- The cause of the block in spermatogonial differentiation is not yet clear, but it may be due to somatic damage.

## PROLISTEM® TREATMENT

**Prolistem®** is a comprehensive and targeted solution for men struggling with non-obstructive azoospermia. Through a two phase treatment process, **Prolistem®** increases the chances of reproductive success for men with this condition.

Phase one of the **Prolistem®** treatment (three bottles over three months) focuses on increasing the number of spermatogonial stem cells which are responsible for testicular stem cell function, and promote differentiation into the next stages of sperm production by naturally lowering testosterone levels and increasing growth factors that promote their growth.

Phase two of the **Prolistem®** treatment (three bottles over three months) designed to enhance sperm count, motility, and quality. During this phase, testosterone levels are restored to normal to facilitate healthy sperm production.



**Prolistem®** uses the active component of licorice, glycyrrhizic acid, which is hydrolyzed *in-vivo* to glycyrrhetic acid, to block 17 $\beta$ -hydroxysteroid dehydrogenase (17 $\beta$ HSD), which catalyzes the conversion of androstenedione to testosterone. In addition, **Prolistem®** uses flaxseed, which is rich in Omega-3 fatty acids that may be linked to a decrease in testosterone levels.

## References:

1. Alona Feldman, Mahmoud Abuelhija, "A Clinical Trial Evaluating the Efficacy of Prolistem Supplement in Men with Non-Obstructive Azoospermia (Primary Testicular Failure)". *International Journal of Science and Research (IJSR)*, 2023.
2. Mahmoud Abuelhija, C C Weng, G Shetty, M L Meistrich. Rat models of post-irradiation recovery of spermatogenesis: interstrain differences. *Andrology*, 2013.
3. Mahmoud Abuelhija, Connie C Weng, Gunapala Shetty, Marvin L Meistrich. Differences in radiation sensitivity of recovery of spermatogenesis between rat strains. *Toxicol Sci.*, 2012.
4. Marvin L. Meistrich, Gunapala Shetty. Inhibition of Spermatogonial Differentiation by Testosterone. *Journal of Andrology*, 2013
5. Shetty, G., Wilson, G., Huhtaniemi, I., Shuttlesworth, G. A., Reissmann, T. & Meistrich M. Gonadotropin releasing hormone analogs stimulate and testosterone inhibits the recovery of spermatogenesis in irradiated rats. *Endocrinology*, 2000.
6. J. J. Lim, S.-Y. Sung, H. J. Kim, S.-H. Song, J. Y. Hong, T. K. Yoon, J. K. Kim, K.-S. Kim and D. R. Lee. Long-term proliferation and characterization of human spermatogonial stem cells obtained from obstructive and non-obstructive azoospermia under exogenous feeder-free culture conditions. *Cell Proliferation*, 2010.

