



How is the sperm stored and prepared for use?



Sperm for donor insemination or assisted reproductive techniques is carefully stored and prepared to ensure its viability for fertilization. Here is an overview of the process:

1- Sperm Donation:

- Donors undergo a comprehensive screening process, including medical and genetic evaluations, to ensure the health and quality of the donated sperm.

2- Sperm Freezing:

- After donation, the sperm is processed and then frozen to preserve its viability. Cryopreservation involves gradually cooling the sperm to very low temperatures, typically around -196 degrees Celsius, using liquid nitrogen.

3- Sperm Storage:

- The frozen sperm is stored in special containers, usually small vials or straws, within liquid nitrogen tanks. These tanks are designed to maintain extremely low temperatures, keeping the sperm in a state of suspended animation until needed.

4- Thawing Process:

- When a recipient is ready for insemination or in vitro fertilization (IVF), the frozen sperm is thawed. The thawing process involves warming the sperm vial or straw to bring it back to a liquid state.

5- Sperm Washing:

- Before use, the thawed sperm is "washed" to remove the cryoprotectants and debris. This process separates healthy, motile sperm from non-viable ones and helps enhance the chances of successful fertilization.

6- Quality Assessment:

- After washing, the sperm is assessed for parameters like concentration, motility, and morphology to ensure its quality and suitability for fertilization.

7- Insemination or IVF:

- The prepared sperm is then used in the chosen fertility treatment. Insemination involves placing the sperm directly into the reproductive tract, while in IVF, the sperm is used to fertilize eggs in a laboratory setting before transferring embryos to the uterus.

The entire process of sperm storage, freezing, thawing, and preparation is meticulously managed to maintain the highest possible quality of sperm for successful assisted reproduction. It provides flexibility in timing and allows individuals or couples to use donor sperm when it aligns with their reproductive goals.

Explore [Donor Sperm Treatment in Mumbai](#) with [Dr. Manjushri Kothekar](#) at [Chembur Fertility Clinic](#). Schedule your consultation today for personalized guidance on your path to parenthood. Start your journey now!