

Appendix

About Reproductive Preservation Technology

Sperm freezing

Freezing sperm before surgery or the start of cancer treatment is a simple and effective method for male patients to preserve their reproductive ability. Patients can use assisted reproductive technology to thaw and use the frozen sperm after the cancer is cured, which can be helpful for their future family planning.

Freezing mature eggs (suitable for single female cancer patients)

If the female patient is unmarried, freezing mature eggs can be considered. Before undergoing treatment, patients are given medication to stimulate the ovaries, and mature eggs are extracted through surgery and frozen for preservation. However, ovarian stimulation takes time, and using this method may delay cancer treatment and affect the patient's condition. Patients' hormone levels may also temporarily increase, which may lead to the regeneration of cancer cells in hormone-sensitive cancers.

Freezing embryos (suitable for married female cancer patients)

Freezing embryos is currently the most mature method for preserving reproductive ability. Before cancer treatment, patients can stimulate the ovaries by medication, producing a certain number of mature eggs. Then, through surgery, mature eggs are extracted and combined with their husband's sperm through in vitro fertilisation to create embryos, which are frozen for preservation. After the patient recovers, the embryos can be thawed and implanted into the uterus to attempt pregnancy. However, this method is not suitable for patients who need to undergo urgent cancer treatment, as ovarian stimulation takes time. In addition, during ovarian stimulation, patients' hormone levels may temporarily increase, which may lead to the regeneration of cancer cells in hormone-sensitive cancers.