Ovarian Tissue Freezing

Ovarian tissue freezing is an experimental technique that involves the freezing and storage of tissue from the ovarian cortex. This tissue holds primordial follicles, each containing a single immature egg. Total or partial oophorectomy (the removal of the ovary) is generally performed using a minimally invasive surgical procedure. After removal of the ovarian tissue, the cortex is dissected off the medulla, cut into thin strips, and frozen.

Who is Eligible?

Pre-menopausal females who do not have adequate time for egg or embryo freezing and pre-pubertal females who are not able to undergo ovarian stimulation and egg retrieval may want to consider this option. Women choosing ovarian tissue freezing have a planned cancer treatment regimen that carries a high risk of infertility.

What are the Potential Risks/Concerns?

There is a risk of complications from anesthesia. To minimize this risk, ovarian tissue freezing may be scheduled with another procedure requiring anesthesia. Invasive procedures also carry a risk of infection. To minimize this risk, a patient may be given prophylactic antibiotics. There is also a potential risk of reseeding cancer cells when ovarian tissues are re-implanted. Ovarian tissue freezing is only available at selected reproductive endocrinology centers.

Future Use and Success Rates

Ovarian tissue freezing is an experimental procedure. As such, it should be done under the approval of an IRB. About 30 babies have been born world-wide using re-implantation of tissue in the pelvic region. While methods of maturing the immature eggs in the stored tissue in the lab are being studied, there have been no births to date using this approach (known as in vitro maturation).