

在人工受孕中使用新鮮或冷藏後解凍的卵子的懷孕機會有何分別？

What is the comparison in pregnancy between using fresh oocytes or vitrified / warmed oocytes in IVF treatment?

根據美國生殖醫學會 (ASRM) 和輔助生殖技術學會 (SART) 發佈的文件，年輕女性群組中使用玻璃化凍存的卵子與使用新鮮卵子進行單精子卵細胞漿內顯微注射的受精率和懷孕率是相約的⁽³⁾。

根據人類生殖科技管理局的指引，這些卵子可用來為已婚夫婦製造胚胎⁽⁴⁾。透過單精子卵細胞漿內顯微注射 (ICSI) 的技術，將精子直接注射入已解凍的卵子細胞中是最有效的受精方法。

According to a published joint document by the American Society for Reproductive Medicine (ASRM) and the Society of Assisted Reproductive Technology (SART), fertilization and pregnancy rates of vitrified / warmed oocytes are similar to fresh oocytes when used as part of IVF / ICSI for young women⁽³⁾.

The oocytes may be used to produce embryos for married couples in accordance to the Council on Human Reproductive Technology⁽⁴⁾. The most effective method is IVF together with intracytoplasmic sperm injection (ICSI) whereby a sperm is directly injected into the warmed oocyte achieving good fertilization rates.

1. Westphal L.M. and Massie J.A.M. Options for preserving fertility: Embryo and Oocyte Banking. *Oncofertility Medical Practice: Clinical Issues and Implementation* 2012: 51-61.
2. Lee S.J., Schover L.R., Partridge A.H., Patrizio vP, Wallace W.H., Hagerly K., et al. American Society of Clinical Oncology recommendations on fertility preservation in cancer patients. *J. Clin. Oncol.* 2006; 24:2917-2931.
3. Mature oocyte cryopreservation: a guideline. Practice Committees of American Society for Reproductive Medicine, Society for Assisted Reproductive Technology. *Fertil. Steril.* 2013; 99:37-43.
4. Code of Practice on Reproductive Technology and Embryo Research (Jan 2013). Council on Human Reproductive Technology

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港鐵 MTR

港鐵尖東站 K 出口，步行約1分鐘

East TST MTR Station (Exit K), approx. 1-minute walk

港鐵尖沙咀站 E 出口，步行約3分鐘

TST MTR Station (Exit E), approx. 3-minute walk

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oocyte 卵子冷凍保存 Cryopreservation



什麼是
What is

卵子冷凍保存？

Oocyte Cryopreservation

卵子冷凍保存技術是通過玻璃化冷凍來儲存成熟的卵子留待日後使用，從而為女性保存其生育能力。該過程包括使用荷爾蒙刺激卵巢以促進多粒卵泡的發展，增加一個週期可抽取的卵子數量。透過手術將成熟的卵子取出，並通過玻璃化冷凍保存。玻璃化冷凍是一個超速冷凍方法，將卵子放在冷凍保護劑內後於液態氮氣中快速冷卻。已冷凍的卵子可儲存於液態氮氣中直至該女性計劃懷孕時使用。

Oocyte Cryopreservation is a method to pursue fertility preservation in women of reproductive age by storing their mature oocytes (or eggs) for use in the future. The procedure involves ovarian stimulation treatment with hormones that promotes the development of several follicles, so that more oocytes are available in one cycle. The mature oocytes are retrieved surgically and immediately cryopreserved by vitrification. Vitrification is an ultrarapid freezing method that involves placing the oocytes in a special cryoprotectant followed by rapid cooling in liquid nitrogen. Cryopreserved oocytes can then be stored in liquid nitrogen until the women want to conceive.

哪些人需要
卵子冷藏保存？
Who needs
Oocyte Cryopreservation ?

卵子冷凍保存技術可以為準備接受癌症或藥物治療或手術的女性提供一個保存生育能力的選擇。在癌症治療中使用的化療和放射治療藥物可能對生殖系統有害，及影響女性的卵巢儲備和功能。這些治療可能會減少卵泡的數量，或影響卵巢功能，降低自然受孕和懷孕的成功率⁽¹⁻³⁾。

由於現今醫療保健技術的進步，提高了年輕癌症患者的存活率。故卵子凍存技術可以幫助年輕癌症患者在完全康復後生育健康的孩子，從而有助他們樂觀地面對未來。

卵子冷凍保存技術也可為沒有男性伴侶但卵巢儲備低的女性提供一個選擇。但在進行生育療程前她們必須經醫生評估及檢查其身體狀況是否適合⁽¹⁾。

另外，有些夫婦因道德或宗教信仰的原因不能冷凍保存胚胎。卵子冷凍保存技術也是他們在輔助生育技術的選擇，因為這是冷凍配子而非胚胎。

Oocyte Cryopreservation is an option for women of reproductive age who are going to receive medical treatment for cancer or other medical diseases. Chemotherapy, radiation therapy and surgery in cancer treatment may be gonadotoxic and affect a woman's ovarian reserve and function. Those treatments decrease the number of follicles or interfere with function of the ovaries, reducing the chance of natural conception and successful pregnancy^(1, 2, 3).

Improvements in medical care have led a better survival rate for young cancer patients who may consider having children at a later time. Oocyte Cryopreservation provides a psychological advantage to cancer patients allowing them to look forward to the future.

Oocyte Cryopreservation is an option for women without a current male partner or wish to delay childbearing. However, appropriate screening and medical examination shall be performed before initiating fertility treatment for this group of patients⁽¹⁾.

Some patients / couples may not wish to create embryo for storage due to ethical or religious objection. Thus, Oocyte Cryopreservation is an alternative treatment choice for them in assisted reproduction because Oocyte Cryopreservation is freezing a gamete, not a fertilized egg.

