

Since the birth of the first IVF baby in England 1978, In vitro fertilization (IVF) has revolutionized our ability to treat infertility. IVF is in most instances the most effective fertility treatment we have. IVF treatment involves several steps. Powerful injection fertility medicines are taken daily for 10-13 days, in order to produce many eggs during treatment, rather than the typical one egg a month that women release naturally. The response of the ovaries is monitored using intravaginal ultrasound, and hormone levels in the blood are monitored. When the eggs are mature, a 15-30 minute procedure called an egg retrieval is undertaken. While the IVF doctor is retrieving the eggs using an ultrasound, an anesthesia provider gives intravenous sedation. Embryologists from the IVF lab are present in the retrieval room to identify the eggs using a microscope. The eggs are maintained at body temperature, strict oxygen tension, and strict pH to insure their health. A few hours after the egg retrieval, the eggs are fertilized with sperm, and the fertilized eggs are cultured in an incubator for 3-5 days. The procedure whereby the fertilized eggs are put into the uterus is called an embryo transfer, which occurs 3-5 days after the egg retrieval. Any additional fertilized eggs that reach a developmental stage called the blastocyst stage by the 5<sup>th</sup> or 6<sup>th</sup> day after the egg retrieval are cryopreserved, or frozen, and can be used in the future to try to achieve another pregnancy.