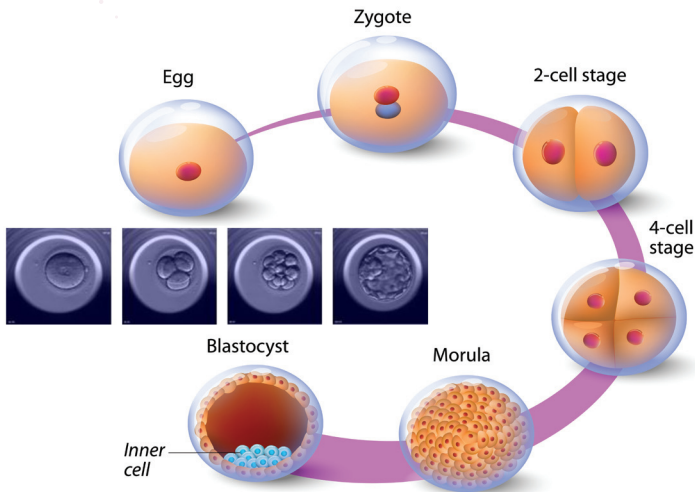


Time-lapse technology



During IVF or ICSI treatment, embryos remain in the culture system for a period of 2 – 6 days. Embryos are checked at key points to assess how they are developing. With conventional incubation the embryologist removes the dish containing the embryos from the incubator to perform the checks under a microscope. Embryos are developing constantly but in order to protect the embryos, they are only viewed for a very limited period as they should not be outside of the incubator for longer than absolutely necessary.

Until recently, a wealth of information about embryo development has remained untapped. Time-lapse systems allow us to constantly monitor the embryos without having to remove them from the incubator. The system takes photographs of each embryo every 5-10 minutes and allows the embryologist to observe key events during embryo development, which assists the embryologists in selecting the 'best' embryo for transfer.

- Normal embryos divide from 1 cell to 2, then from 2 to 4 and so on.
- If these cell divisions occur at the right time it is a sign that the embryo is healthy and stands a good chance of making a pregnancy.
- Some embryos develop too fast or too slow, or they may develop abnormally, for example dividing from 1 cell directly into 3 cells.
- These embryos are less likely to make a pregnancy and should not be selected for treatment.
- Such subtle deviations from normal development are very difficult to spot and using time-lapse technology means that the embryologist is less likely to miss an embryo that doesn't develop as it should.

There has been a tremendous amount of research recently looking at whether or not using time-lapse can have a positive effect on treatment success. Most research concludes that time-lapse offers a benefit to patients by;

- Improving embryo selection
- Providing a stable environment for embryo development
- Contributing to reducing early pregnancy loss

Some patients may benefit from time-lapse more than others;

- Older women or those who have had repeated failed IVF cycles
- Women having multiple pregnancy loss or poor embryo quality

If you are paying for treatment and interested in time-lapse be aware that some (but not all) clinics charge for this service and that the price varies.