



# Introduction to Follicular Fluid Study

Reception: +353 1 556 7900

# Information about the study

A female is born with a finite number of eggs. This number and the quality of these eggs declines as she ages. The majority of women will have sufficient eggs of good quality up to their mid-late 30s, at which time there is a significant decline. For a subset of women, this decline in both egg number and quality occurs earlier than average. This has implications for fertility and family size as well as potential medical, social and psychological consequences for them, as they will reach menopause many years before their peers.

The mechanisms by which eggs age and decline in number are poorly understood. There is no way to test an individual egg for quality before it is fertilised. In assisted reproduction, eggs are surgically removed from the women and fertilised in the lab (in vitro). This provides a potential pathway to study eggs. The follicular fluid surrounding the eggs can also be studied as this is routinely removed during the IVF procedure. This fluid contains the eggs as well as cells and proteins.

By studying the components of the usually discarded follicular fluid and comparing those from patients with egg numbers and declining numbers, we can gain an understanding of the biological mechanisms responsible for this condition. Identifying genes and proteins may provide a therapeutic avenue in the future.

## How will this study be carried out/ what will happen to me?

Deciding to take part in this study will not affect your treatment in any way. No fertilized embryo will be used in this study. We are asking your permission to use your usually discarded tissue from routine assisted reproduction techniques. During the process of egg retrieval, follicular fluid and granulosa cells are collected along with the egg (oocyte). Once the egg is safely collected by the embryologist, follicular fluid and surrounding cells are typically discarded. We wish to analyse these samples, on a molecular level, for potential quality control factors. Samples will be transported for analysis to TCD and UCD and potentially to other laboratories in Europe for analysis.

Additionally, we ask permission to access the following results from your patient records: age, hormone levels, reason for fertility treatment (i.e. male or female factor), fertility drugs administered, embryonic development and pregnancy outcome.

## What are the benefits?

This type of research is valuable so that we can continue to improve our knowledge and understanding of factors that affect the quality of the egg and its potential to develop successfully. While this study will not benefit you directly, it is hoped that it may benefit future patients undergoing assisted reproduction procedures.

## What are the risks?

There are no known risks associated with this study.

## If I want more information?

You may wish to discuss participation in this research project with Merrion Fertility Clinic. If more information is required, please contact Merrion Fertility Clinic at:

[research@merrionfertility.ie](mailto:research@merrionfertility.ie)

**Thank you for taking the time to read this information leaflet and for your consideration to participate in this important research project.**



**Expert care  
with compassion,  
honesty & trust**