

ICSI (Intracytoplasmic Sperm Injection)

What is ICSI?

ICSI is a technique to inject a single sperm directly into the cytoplasm of the egg. ICSI was developed to assist fertilisation when sperm quality is particularly poor. Over the decades, ICSI has advanced into a more effective and reliable procedure. It is the preferred method for fertilisation in most ART centres around the world.

ICSI is a technique that involves the direct injection of a single sperm into an egg using a fine needle. ICSI is most useful for couples who suffer from severe male factor infertility as it bypasses the initial steps of gamete interaction.

As ICSI is a skill-based procedure, the expertise of the embryologist plays a significant role in ensuring good fertilisation. The entire process is done under microscopic visualization and micromanipulation using precision-based equipment. Healthy sperm is chosen and immobilised before being delivered into the egg's cytoplasm.

How does it work?

Conventional ICSI (Diagram)



- A. A sharp pipette is advanced into the egg's shell and membrane.
- B. The egg cytoplasm is aspirated into the pipette to break the membrane.
- C. The cytoplasm contents and sperm are released before removal of the pipette.