

PATIENT FAQS: MAGENTA™



WHAT IS MAGENTA™?

MAGENTA™ provides you with images of your eggs (oocytes) and personalized egg quality scores based on comparisons with over 100,000 other egg images and their outcomes. A higher MAGENTA™ score correlates with a higher likelihood of your egg developing into a day five or six embryo (called a blastocyst).

The MAGENTA™ report is designed to be patient-friendly, empowering you to be a more informed participant in your fertility journey. Its insights enable you to have a clearer, personalized understanding of your fertility, thus helping to improve your future planning in consultation with your physician.

HOW DOES ARTIFICIAL INTELLIGENCE (AI) ASSESS OOCYTE QUALITY?

MAGENTA™ uses a type of AI called Deep Learning, which can be used to recognize patterns across vast quantities of images that are invisible to the human eye. Our model was built using over 100,000 oocyte (egg) images and their outcome data (ex. Did the oocyte in the image fertilize and form a blastocyst?) across different patient types and geographies. Through this robust analysis, the AI has learned which features of an oocyte image are most related to blastocyst outcomes.

When new oocyte images are uploaded to the Future Fertility software by your fertility lab, the AI instantly compares the new image to all the others it's seen before and provides an oocyte quality score (0 – 10) that is correlated with your oocyte's likelihood of forming a blastocyst.

WHAT IS A BLASTOCYST AND WHY IS IT AN IMPORTANT OUTCOME TO CONSIDER?

A blastocyst is an advanced embryo stage whereby the egg has been successfully fertilized by sperm and has developed for 5-6 days. Embryos that survive to this stage have a high implantation potential once transferred into the uterine cavity, excluding other factors such as uterine receptivity and other health indicators for successful pregnancy. They also have a lower rate of genetic errors at this stage as compared to earlier stage embryos and therefore a higher chance of resulting in a healthy live baby. However, as female reproductive age increases, the probability of a blastocyst being genetically abnormal increases.

It's important to remember that even a genetically normal blastocyst may not always result in a live birth following an embryo transfer, because there are many other processes in your body that need to occur properly to ensure the success of implantation and ultimately a successful pregnancy.

WHY DOES THE MAGENTA™ REPORT ONLY REFER TO MATURE OOCYTES?

An oocyte (egg) undergoes different developmental steps. Immature oocytes have not completed the necessary developmental steps to enable fertilization. A mature oocyte is one that has completed the process and is at the correct stage required to undergo IVF with ICSI.

WHAT DO THE MAGENTA™ SCORES MEAN?

The score displayed for each oocyte image reflects the quality of that oocyte in terms of its potential to successfully fertilize and develop into a blastocyst, assuming the sperm is healthy. A higher MAGENTA™ score correlates with a higher likelihood of your egg developing into a day five or six embryo (called a blastocyst). Likewise, a lower score correlates with a lower likelihood.



WHY ARE MY EGGS RECEIVING LOW SCORES?

There are various reasons why your eggs may be receiving low scores. Our AI technology assesses features of the egg that are both detectable and undetectable to the human eye. It is the combination of these features that generate the prediction for your egg. It is important to discuss your egg scores with your physician who can contextualize the scores with other information about your health and reproductive outlook.

WHAT DOES IT MEAN WHEN IT SAYS, “MAGENTA™ IS MORE CONFIDENT...” ON PAGE ONE?

Artificial intelligence tools continue to learn as they are used. In some situations, the tool may be uncertain of how to score the egg, meaning it is *less confident*. A score of 0.5 indicates that the tool has no leaning toward the egg forming a blastocyst or not. On either end of the MAGENTA™ scale (0 or 10), the AI tool is the most confident of its blastocyst outcome prediction. As MAGENTA™ scores increase from 5.0 to 10, MAGENTA™ is increasingly confident that the analyzed egg will develop into a blastocyst embryo. As MAGENTA™ scores decrease from 5.0 to 0, MAGENTA™ is increasingly confident that the analyzed egg will *not* develop into a blastocyst embryo.

DO HIGHER SCORES ENSURE THAT THOSE EGGS WILL BECOME BLASTOCYSTS AND LEAD TO SUCCESSFUL PREGNANCY AND BIRTH?

Due to the many factors that impact fertilization and embryo development, no guarantees can be made from these oocyte quality scores. Various factors contribute to successful fertilization, blastocyst development, implantation, and eventual live birth (e.g., sperm quality, endometrium, etc.). These scores provide you and your clinician with more individualized information about your fertility health to aid in managing expectations for success and future treatment planning.

For example, if your egg quality looks good, but the cycle failed, the information can be used to consider other factors influencing the cycle failure – such as sperm quality – so your physician can identify ways to optimize these factors in the next cycle.

EXPLANATION OF THE “MAGENTA™ SCORE REFERENCE” SECTION ON PAGE 1:

MAGENTA™ scores range from 0-10. We have divided the scale into four ranges to provide more information about the blastocyst success rates within these MAGENTA™ scores. The blastocyst rate for each MAGENTA™ score range is the percentage of oocytes scored within that range that successfully developed into a blastocyst. This rate provides you with information that can be referenced when receiving MAGENTA™ scores for your oocytes.

WILL A SPECIFIC EGG BE SELECTED WHEN IT IS TIME TO USE THEM?

The MAGENTA™ report provides information about your eggs, but how that is utilized when the time comes is dependent on your clinician. MAGENTA™ is a decision support tool, not a selection tool. Every clinic has their own scientific method of selecting the best embryo for transfer.

WILL THE PROCESS OF GENERATING A MAGENTA™ REPORT HARM MY EGGS?

There is no additional risk to your eggs in generating a MAGENTA™ report. Embryologists routinely review retrieved eggs under a microscope as part of the IVF process, and taking an image of the egg during that review adds no additional risk to your eggs. Images are then uploaded to the Future Fertility software to generate an egg quality assessment report.