



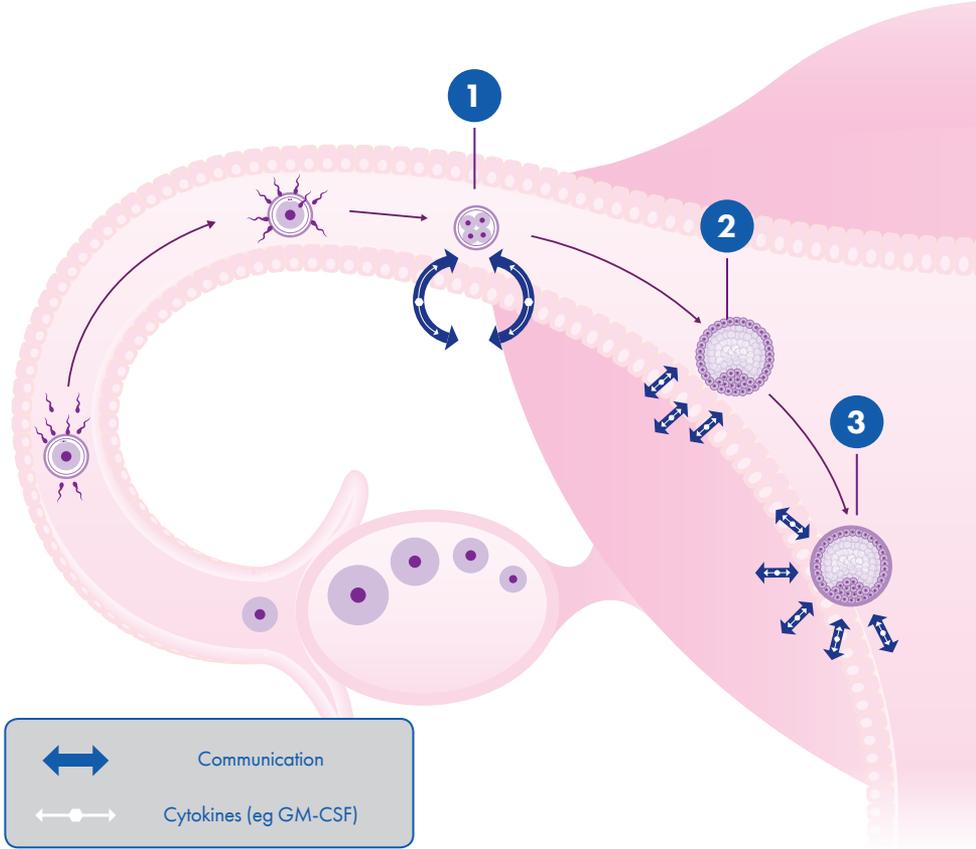
For women experiencing difficulties getting pregnant

Communication is key



Pregnancy is a dialogue

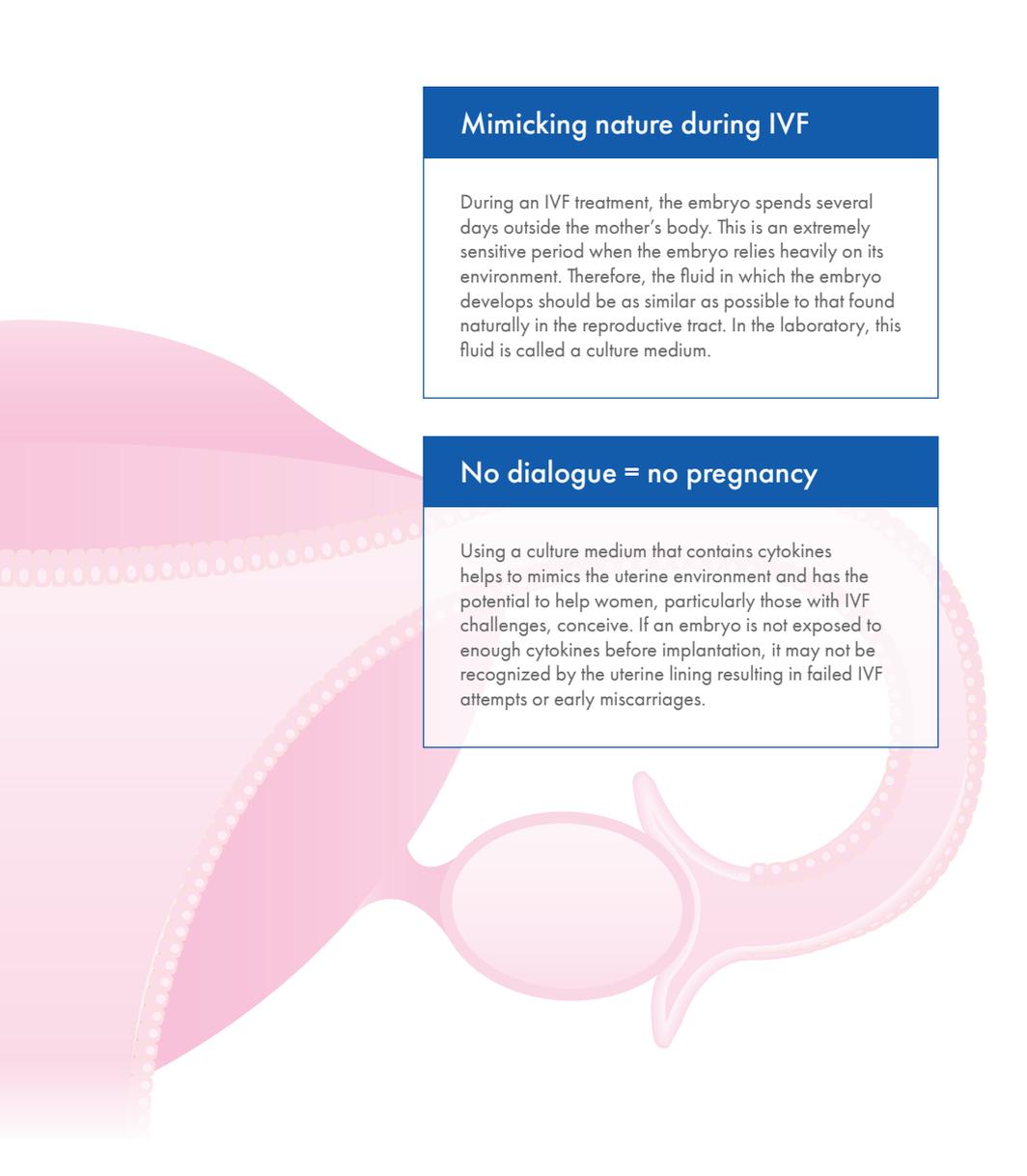
In the human body, fertilization typically occurs in the fallopian tubes. The fertilized egg, now an embryo, then continues to travel towards the uterus. During this time, the embryo begins to 'talk' with its surroundings via so called signaling molecules, preparing for implantation in the uterine lining. Cytokines are an essential class of signaling molecules, which are known to play an essential role in this communication and are naturally released throughout the early stages of pregnancy.



Understanding embryo-uterine communication

Cytokine-enabled communication is particularly important for:

- 1 Initial dialogue**
Cytokines are critical in the early dialogue between embryo and uterus prior to implantation.
- 2 Ongoing support**
Cytokine-aided dialogue is essential for recognition and implantation of the embryo in the uterine lining.
- 3 Sustained dialogue**
Cytokines create an environment that helps sustain and support pregnancy following implantation.



Mimicking nature during IVF

During an IVF treatment, the embryo spends several days outside the mother's body. This is an extremely sensitive period when the embryo relies heavily on its environment. Therefore, the fluid in which the embryo develops should be as similar as possible to that found naturally in the reproductive tract. In the laboratory, this fluid is called a culture medium.

No dialogue = no pregnancy

Using a culture medium that contains cytokines helps to mimic the uterine environment and has the potential to help women, particularly those with IVF challenges, conceive. If an embryo is not exposed to enough cytokines before implantation, it may not be recognized by the uterine lining resulting in failed IVF attempts or early miscarriages.



A cytokine with a critical role in communication

The cytokine **Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF)** is a signaling molecule naturally found in the female reproductive tract during pregnancy. This cytokine is essential for helping an embryo communicate with the uterus prior to and during implantation.

Cytokines provide an enhanced treatment option for women experiencing difficulties getting pregnant

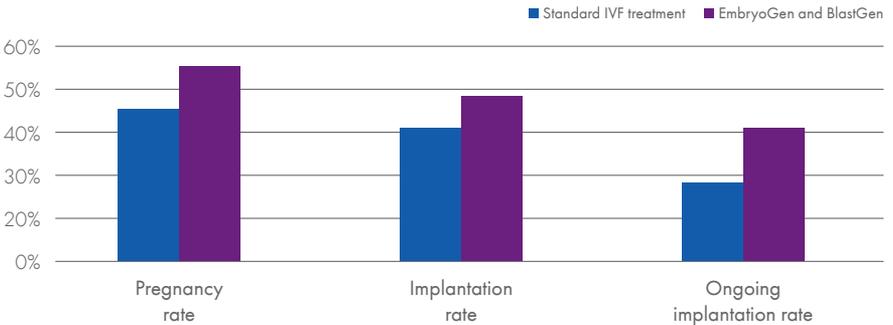
SAGE® 1-Step™ GM-CSF, EmbryoGen® and BlastGen™ make up our innovative embryo culture media suite supplemented with the cytokine GM-CSF, which is found naturally in the female reproductive tract.

It is beneficial to all patients, and is recommended for women who have:

- Experienced recurrent pregnancy loss
- Experienced early miscarriages

Culture media with GM-CSF

Studies have shown that culturing embryos in media containing GM-CSF has a positive effect on pregnancy and implantation rates*.



Results of a clinical test comparing embryos cultured in EmbryoGen and BlastGen with embryos grown in traditional culture media.

* CooperSurgical data on file

Discuss with your IVF clinic if culture media with GM-CSF would be a useful option for you.

