

LASER ASSISTED HATCHING (LAH)

Laser Assisted Hatching is a laboratory procedure that is sometimes performed on embryos before transfer. It can help improve the chances of embryos implantation into the uterine lining of the womb after transfer, by creating a small opening on the outer layer of the embryo through which the embryo can hatch.

Embryo Must Hatch for achieving Pregnancy.

During IVF the embryos formed after fertilization of the eggs are monitored for 3-6 days as the divide and enter blastocyst stage (day 5 embryo). This is the best stage for transfer or freeing the embryo.

While the embryo develops, it is surrounded by cells that make up a protective shell called the zona pellucida. The embryo naturally breaks out of this shell as it grows.

Laser Assisted Hatching is performed prior to the embryos being transferred back to the uterus

60%
Increase in Implanatation success

Our research shows that women who have undergone repeated IVF treatments and have failed, increase their chances of pregnancy up to 60% by using LAH treatment.

Occasionally, the doctor may ask the laboratory to make a small "crack" in the outer shell of the embryo right before it is placed into the woman's body (assisted hatching).

The hope is that assisted hatching might help the embryo expand, implant into the uterine wall, and finally lead to a pregnancy.

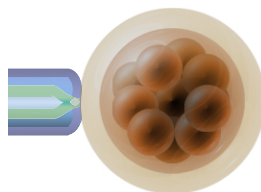
When Is LAH recommended.

- # 75% of normal embryos may never hatch due to thick zona pellucida.
- # Studies point that women older than 37 years of age have a tendency to produce oocytes with a harder or thicker Zona pellucida than younger women.
- # Laboratory procedures involved in IVF may add to the hardening of the Zona as the embryos is not continually exposed to the enzymes present in the natural environment of the fallopian tubes.
- # Evidence indicates that process of freezing and thawing causes the zona to harden and using a LAH can be beneficial.

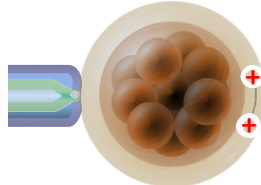
LAH is gentle and safe way to weaken a part of the Zona Pellucida. Minimal Handling of the embryo and delivering fast and excat contol over drilling hole are the advantages of LAH.

How is LAH done?

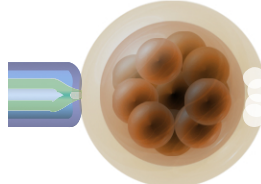
During LAH, the outer shell of the embryo is artificially weakened by making a small hole in the zona pellucida with the help of laser.



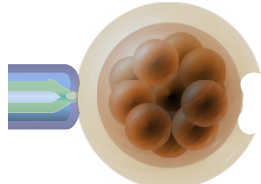
The embryo is held by gentle suction using a glass pipette.



The Red pilot light provides a visual target for the laser. The white circle marks the safety regions based on temperature.



The laser is fired 3 times to drill a small hole in the zona.



Once the Zona Pellucida is breached, the fragments lying in the drilling site are



Clearly defined holes in the Zona Pellucida of D3 embyos after using LAH

Can LAH cause problems with my embryo or pregnancy?

Rarely, Laser Assisted Hatching can damage the embryo, making it unusable. Unlike chemical and manual hatching, LAH has the superior advantage of minimal handling of the embryo and delivering fast and exact control over the drilling of the hole.

The risk for identical twins might be slightly increased when assisted hatching is applied. Medical complications are higher in identical twin pregnancies than in normal, singleton pregnancies.

Experts do not recommend the use of Laser Assisted Hatching in All patients undergoing IVF treatments to conceive.

At Care IVF we perform LAH for:

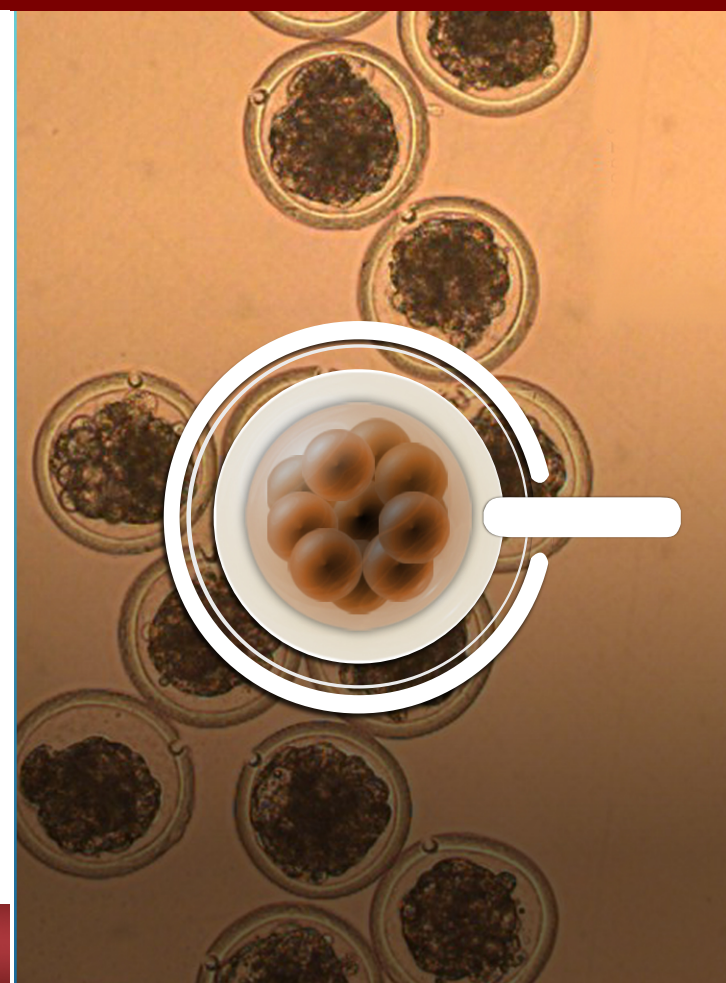
- Patients older than 38
- Patients with poor quality embryos
- Repeated IVF failure

Are there other reasons to do LAH?

If Pre Implantation Genetic Screening (PGS) or Pre Implantation Genetic Diagnosis (PGD) is planned, Laser Assisted Hatching of embryos on the third day after fertilization can make a biopsy for PGS or PGD easier. During a biopsy, a small amount of tissue is taken from the outer cells of the embryo (trophectoderm) around the fifth day after fertilization (blastocyst stage). It is easier to see the trophectoderm and remove the cells in a hatching embryo

Services

- Pre Conception Counseling
- Infertility Workup
- IUI Or Intra Uterine Insemination
- IVF Or In Vitro Fertilization
- ICSI Or Intra Cytoplasmic Sperm Injection
- Oocyte Donation And Egg Sharing Programs
- Surrogacy
- Embryo Freezing And Oocyte Freezing
- Cryo-Preserved Semen Bank
- Andrology Clinic
- TESA And PESA
- Basic And Advanced Endoscopic Surgery
- Hormone Analysis
- Genetic Counseling
- Pre Implantation Genetic Diagnosis (PGD)
- Pre Implantation Genetic Diagnosis (PGS)
- Recurrent Miscarriage Clinic
- Nutrition Clinic
- Care Pharmacy



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