

Assisted Hatching

What it is and how it may help

This handout explains assisted hatching, a lab procedure that may be done along with *in vitro* fertilization (IVF) treatment.



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How Embryos “Hatch”

Eggs and embryos are naturally surrounded by a protective covering, almost like a shell. This is called the *zona pellucida*.

Before pregnancy can occur, an embryo must first free itself from the *zona pellucida*, so that it can implant into the uterus. The process is called *hatching*.

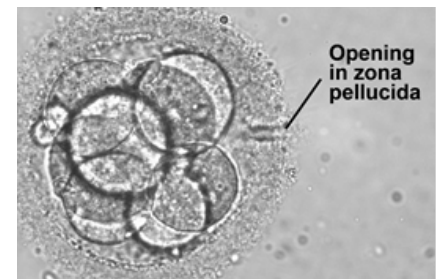
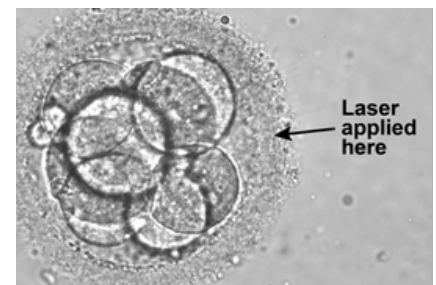
Most of the time, embryo hatching occurs naturally as the embryo grows and puts pressure on the *zona pellucida*.

What is assisted hatching?

Assisted hatching is a lab procedure that helps embryos complete the hatching process so they can *implant* in (attach to) the uterus. This safe procedure is done in the embryology lab.

This procedure is done when an embryo has reached the *blastocyst* stage. A blastocyst is an embryo that is about 5 to 6 days old and has many cells.

During assisted hatching, a laser is used to create a very small opening in the *zona pellucida*. This tiny hole helps the embryo hatch, or break out of its covering (see photos on the right).



An embryo during and after assisted hatching.

When is assisted hatching done?

Assisted hatching is used when an embryo *biopsy* is needed for genetic testing. A biopsy means removing a tiny sample of cells. A biopsy can help to diagnose a disease or to check the number of *chromosomes* in an embryo.

These tests are called *preimplantation genetic testing* (PGT). There are 2 types of PGT:

- PGT-A: checks for extra or missing chromosomes (*aneuploidy*, or abnormal chromosomes)
- PGT-M: checks for a specific inherited condition caused by a single gene (*monogenic* disorder)

Who should use assisted hatching?

Assisted hatching may help if you are having IVF and:

- You are using embryos from frozen *oocytes* (eggs).
- You are planning to do genetic testing (PGT).
- Your medical history or other IVF cycles show that it may help you.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Center for Reproductive Health and Fertility:

Weekdays between 8 am – 5 pm:
Call 206.598.4225

After hours, weekends, and holidays:
Call 206.598.6190 and ask to page the CRHF provider on call.

Website:
uwmedicine.org/specialties/obstetrics-gynecology/fertility-care