

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.

How Embryos “Hatch”

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

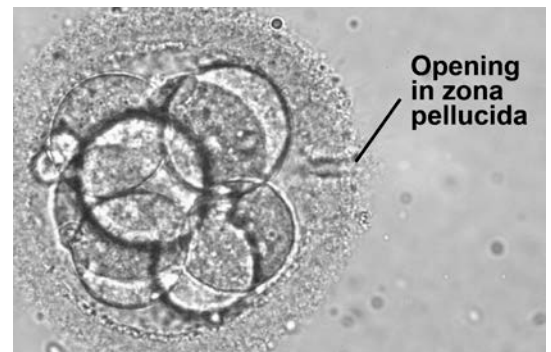
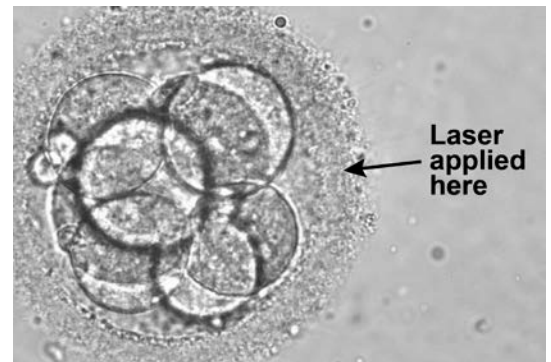
Before pregnancy can occur, an embryo must first free itself from the *zona pellucida*, so that it can implant into the uterus. The process is called *hatching*.

Most of the time, embryo hatching occurs naturally as the embryo grows and puts pressure on the *zona pellucida*. But, some embryos may not complete the hatching process. This means they cannot implant into the uterus, and pregnancy cannot occur.

What is assisted hatching?

Assisted hatching can be used to help embryos complete the hatching process and implant into the uterus. This safe procedure is done in the embryology lab.

In assisted hatching, a laser is used to create a very small *ablation* (hole) in the *zona pellucida* (upper photo at right). This tiny hole gives embryos with a way to free themselves from the *zona pellucida* (lower photo).



An embryo during and after assisted hatching.

When is assisted hatching done?

As a part of the IVF process, this procedure is done on the 3rd day after egg retrieval. It helps more embryos be able to hatch.

Assisted hatching is also used when an embryo *biopsy* is needed for genetic testing. A biopsy may be used 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-M (preimplantation genetic testing for a *monogenic*, or single gene, disorder)
- PGT-A (preimplantation genetic testing for *aneuploidy*, or abnormal chromosomes)

Who should use assisted hatching?

You may benefit from assisted hatching if you are having IVF and you:

- Are older than 38 years of age
- Have eggs with thicker than normal *zona pellucida*
- Have had other IVF cycles that did not result in pregnancy
- Are having a frozen embryo thaw cycle
- Are using embryos from frozen *oocytes* (eggs)
- Are planning to do PGT

Your doctor will talk with you about assisted hatching if:

- You plan on using PGT
- Your medical history or other IVF cycles show that it may benefit you

Questions?

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

University Reproductive Care:
206.598.4225

Clinic hours: Weekdays from
8 a.m. to 5 p.m.

Website:
www.uwmedicine.org/uwfertility