

# 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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digital copy of  
this handout.*

## 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.

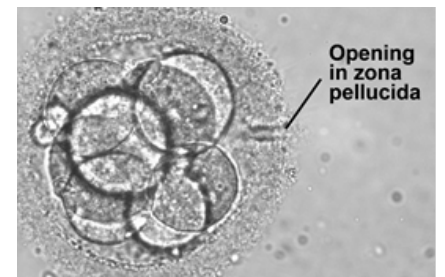
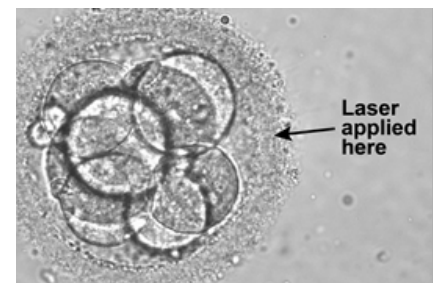
During assisted hatching, a laser is used to create a very small opening in the zona pellucida. This tiny hole helps the embryo hatch, or break out of its covering (see photos on the right).

## 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)



***An embryo during and after assisted hatching.***

## 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](https://uwmedicine.org/specialties/obstetrics-gynecology/fertility-care)