

This fact sheet explains what the term 'assisted hatching' means, who may benefit from this laboratory technique and how it may improve the chances of a successful pregnancy.

THE FACTS ABOUT:

Assisted hatching

What is hatching?

In women during their fertile years, a single egg reaches maturity and is ready to be fertilised every month. This mature egg is surrounded by a protein coat or shell called the zona pellucida. This coat continues to surround the fertilised egg and growing embryo until it is ready to implant into the lining of the uterus (five or six days after fertilisation). Before it can successfully implant, it must 'hatch' or break out of this protein shell.

This hatching is normally achieved by the growing embryo (called a blastocyst at this stage) expanding and contracting until it breaks out of its shell (*Fig. 1*). If the hatching doesn't happen properly, the embryo cannot implant and start a pregnancy. It is possible that this could be a factor preventing some women from becoming pregnant naturally or through IVF.



Figure 1: A blastocyst stage embryo 'hatching' out of its surrounding shell.

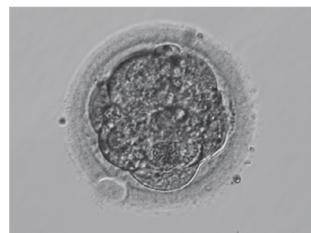


Figure 2: A morula stage embryo showing a hole in the surrounding shell made by a laser to assist hatching.

This hole creates a weakness in the shell so it breaks more easily when the embryo begins to expand. We usually do the assisted hatching technique on the same day that your embryo is due to be transferred back into your uterus (two to five days after fertilisation).

Are there any risks associated with assisted hatching?

There have been some claims that assisted hatching is more likely to lead to identical twins but there is not strong enough evidence to say this for sure. There is no evidence that assisted hatching has any other significant risks.

Do I need assisted hatching?

At Life Fertility Clinic we watch embryos closely in the days after fertilisation and we will use assisted hatching (with your consent) if we think hatching may be a problem.

We recommend that you consider assisted hatching if you fall into any of the following groups:

- you are aged over 37
- you are having a frozen embryo transfer
- you have had a previous failed IVF or ICSI treatment cycle
- you have needed larger than average doses of egg stimulation hormones.

Contact Life Fertility Clinic

The friendly and professional team at Life Fertility Clinic are happy to answer any other questions you may have about assisted hatching.

What goes wrong with hatching?

In some women, there may be abnormalities in the protein shell that surrounds her eggs. We think that in older women with fewer eggs, the shell may become tougher or thicker than normal and this may prevent hatching.

The laboratory processes involved in IVF may also cause artificial 'hardening' of the shell as embryos do not get exposed to the enzymes present in the fallopian tube, which are believed to help soften the shell ready for hatching.

What is assisted hatching?

Assisted hatching is a procedure used in the laboratory during IVF to help the embryo hatch. The embryologist makes a hole in the protein shell using a precise laser technique (*Fig. 2*).