Information Leaflet

NHS
Liverpool Women's
NHS Foundation Trust

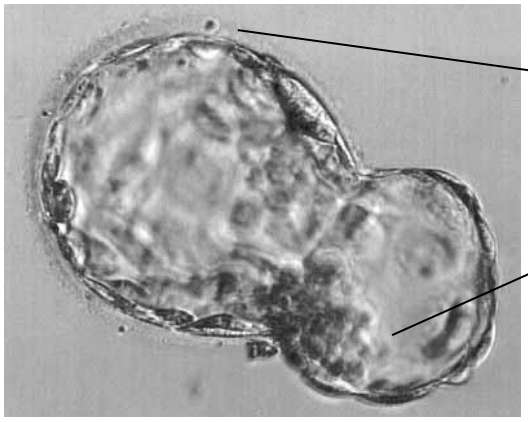
Laser Assisted Hatching

What is laser assisted hatching?

A human embryo has a soft outer 'shell' called the zona pellucida (or zona for short). When an embryo is five or six days old and is at the stage known as a blastocyst, it needs to escape or hatch out of the zona. The picture below shows a blastocyst hatching out of the zona.

What is laser assisted hatching?

A human embryo has a soft outer 'shell' called the zona pellucida (or zona for short). When an embryo is five or six days old and is at the stage known as a blastocyst, it needs to escape or hatch out of the zona. The picture below shows a blastocyst hatching out of the zona.



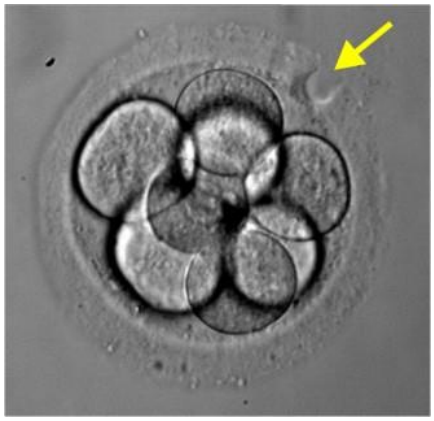
The outer 'shell' or zona of the embryo

The embryo itself hatching out of the zona

Once the embryo has hatched out of the zona, it is able to implant into the lining of the womb and a pregnancy hopefully results.
If the embryo does not hatch a pregnancy cannot occur.

What is laser assisted hatching and how is it done?

Laser assisted hatching is a technique whereby a small artificial hole is made in the zona of an embryo using a laser. It is thought that the embryo can then hatch more easily through this hole and hopefully increases the chance of the embryo implanting.



This picture shows the hole made by the laser in the zona of an embryo (indicated by the arrow).
Laser assisted hatching is usually performed just before the embryo transfer procedure.

Laser assisted hatching can be performed on embryos at the early cleavage stages (that is two or three days after the egg collection) and at the blastocyst stage (five or six days after the egg collection).

Is laser assisted hatching suitable for me?

Some patients may produce embryos in which the zona is thickened or hardened making it difficult or impossible for the embryo to implant. Also, patients who have had several embryo transfers without success or patients who are older may wish to consider laser assisted hatching.

What difference will laser assisted hatching make?

It is difficult to say with certainty whether laser assisted hatching improves your chance of pregnancy as the available evidence about this remains controversial. The National Institute for Clinical Excellence (NICE) states *"Assisted hatching is not recommended because it has not been shown to improve pregnancy rates."* The Human Fertilisation and Embryology Authority (HFEA) have a traffic light system to rate the clinical effectiveness of add-on treatments. Please discuss the current HFEA traffic light status for laser assisted hatching with your fertility specialist.

Are there any risks with laser assisted hatching?

There is always some risk of damaging embryos with these types of procedures, further research is needed to examine the consequences for children born as a result of this procedure.

What is the cost of laser assisted hatching?

There will be an additional charge per treatment cycle of £380 for laser assisted hatching.

If you are unsure as to whether you should have laser assisted hatching, please do not hesitate to contact The Hewitt Fertility Centre.

The Hewitt Fertility Centre
Crown Street
Liverpool
L8 7SS
Tel: 0151 702 4121 / 4123
Email: Hewitt.Centre@lwh.nhs.uk

The Hewitt Fertility Centre
4 The Pavillions
Knutsford Business Park
Mobberley Road
Knutsford
WA16 8ZR
Tel: 01565 653287

This leaflet can be made available in different formats on request. If you would like to make any suggestions or comments about the content of this leaflet, then please contact the Patient Experience Team on 0151 702 4353 or by email at pals@lwh.nhs.uk

Liverpool Women's NHS Foundation Trust
Crown Street
Liverpool
L8 7SS

Tel: 0151 708 9988
Issue Date: 18/06/2020
Reference: Gyn/2020-279-v1
Review Date: 18/06/2023