

# Post mortem embryo production

If your mare must be euthanised it is often still possible to make a last offspring. After euthanasia the ovaries can be removed, and the oocytes fertilized through ICSI.

## Removal of ovaries after euthanasia

Shortly after euthanasia the ovaries can be removed through a small incision in the flank. The ovaries are then washed and packed carefully and transported to the laboratory. In the laboratory, each follicle is scraped thoroughly to retrieve the oocytes.

If the euthanasia is planned, you can either say goodbye to your mare at VetEmbryo or have the euthanasia and removal of ovaries performed by your own veterinarian. If possible, we advise you to scan the mare before, to make sure that she has a high number of follicles at the time of euthanasia. If the euthanasia is acute, your own veterinarian can remove the ovaries shortly after euthanasia. You can find more information about how to remove the ovaries and the post mortem embryo production on our homepage [www.vetembryo.com](http://www.vetembryo.com) → services → euthanasia.

## ICSI procedure

The retrieved oocytes are matured in the laboratory for approximately 30 hours and one healthy-looking sperm is injected into each mature oocyte under microscope by a micromanipulator. This process is called intra-cytoplasmic sperm injection or ICSI. The fertilized oocytes are then cultured in an incubator and media, mimicking the environment in the uterus. After 7-10 days, it can be seen if the fertilized oocytes have developed into an embryo and the embryo can at this stage either be transferred directly to a synchronized recipient or vitrified (frozen) for later transfer.

## Semen and EU regulations

Both frozen and cooled/fresh semen can be used for ICSI. It is important that we have the semen here in the laboratory at the latest, on the day, where we expect the mature oocytes to be fertilized. If only limited semen is available, we can cut one straw of frozen semen into approximately 5 pieces, holding enough semen for 5 OPU/ICSI sessions.

If there are special conditions for the semen used for ICSI, we must emphasize that it is the responsibility of the mare owner to ensure that all conditions are met.

It is also the responsibility of the mare owner to keep track of the requirements for the semen and certificates for registration of ICSI foals in the desired breeding organization.

If the embryos are meant to be transported across the border, the mare must have an EU-approved health status, and so must the semen used (there must be a valid INTRA certificate). It is the client's responsibility to fulfill the EU requirements for sanitary tests and animal health certificates for semen, oocytes and embryos for intracommunity movements. If embryos should be exportable to countries outside the EU, this must be communicated in advance to have certain sanitary tests done and achieve certificates approved for the desired country.

## Responsibilities

Storage of embryos in our laboratory is performed on the owner's own responsibility. The embryos are stored in containers with liquid nitrogen in a secured room with an alarm system connected, but VetEmbryo is not liable for any loss, damage or unforeseen incidents such as fire or theft. VetEmbryo does not insure the stored embryos. It is the owner's responsibility to purchase an insurance, if desired.

The client accepts that when using advanced reproductive techniques, there is a very small risk that errors may occur that could lead to an incorrect DNA parentage of the ICSI foal. If the pedigree in connection with a genetic analysis of the embryo or foal is incorrect and VetEmbryo can be held responsible for this, any liability in any case will be limited in amount to the costs of the OPU, ICSI and freezing of the embryo invoiced by VetEmbryo.

The client accepts that there is approximately 15% risk of pregnancy loss after the first confirmation of pregnancy on day 14. In addition, there is a small risk (~2%) of twin or triplet pregnancies arising from the transfer of one ICSI embryo. One must therefore be extra careful to have the recipient mare checked for a fetus with heartbeat around day 30. VetEmbryo cannot be held liable for any pregnancy loss due to twins/triplets.

## Success rate

Many factors, such as the mare's age, health status, number of oocytes, oocyte quality, and sperm quality, influence the success rate.

For non-acute cases (ex. aging, neurological conditions) with more than 15 oocytes recovered, the chance of getting one or embryos is around 65%. In cases of a life-threatening condition with an effect on the cardiovascular system, the chance of getting an embryo decreases to 40-50%. When the embryo is transferred to a recipient, approximately 70% of these develop into a pregnancy. Statistically, there is therefore approximately a 30-40% chance of a foal.

## Terms of payment

Collection of oocytes, maturation of oocytes and ICSI will be invoiced when the ICSI is performed. Payment must be available for VetEmbryo before the result of the session can be announced. Freezing of embryos will be invoiced when we know the outcome of the session.

We *do not* transfer or hand over any embryos, if the client has unpaid invoices from VetEmbryo.

## Prices (ex. tax)

All our current prices can be seen on our website: [www.vetembryo.com/prices](http://www.vetembryo.com/prices)

Please fill in the requested information:

Mare information (name and ID no.)	Desired stallion (name and ID no.)

Owner- and invoice information		
Name	Address	Telephone no. and e-mail
Company EU valid VAT nr.		

*I hereby declare that I have read, understood and consent to the above-mentioned information.*

*I agree that my personal data must be passed on to the stallion owner, if semen from a commercial stallion owner is used.*

*By signing this contract I warrant that I am the true and lawful owner of the donor mare(s) or if not the owner, then has actual authority to act as owner's agent for purposes of entering into this Contract, and to make any and all decisions regarding the animal and its veterinary care. The signatory shall be fully responsible for all charges incurred under this Contract and shall indemnify, defend and hold harmless VetEmbryo from any and all claims, of every kind and nature, arising as a result of or in connection with this Contract (including any claim that such person lacked the right or authority to execute this Contract on behalf of the true owner).*

*In the event of any dispute Danish case law applies, and the Danish courts have jurisdiction.*

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Date

Signature