



NSET Helpful Hints & Tips

The following are a few tips, remarks and helpful hints from our own scientists/technicians which have proved helpful to NSET users.

1. **Read ALL instructions** carefully before beginning your NSET trials.
2. Our studies have shown good results using a 2.5 day post-coitum (dpc), pseudopregnant mouse (after the plug has fallen out) for embryo transfers using the NSET device.
3. Our scientists highly recommend that you only use mice that are awake, not sedated or anesthetized, and that are pseudo-pregnant as this makes them very receptive and can enter the cervix. It appears to be very difficult to insert if this isn't so. When they are "sleepy" from sedation, it's difficult to get the mouse in a position to enter the cervix.
4. We use CD1 mice and highly recommend using this strain for your pseudo-pregnant recipient. We suggest using mice that weigh ≥ 26 g and at least 60 days old.
5. We also recommend the embryos be incubated to the blastocyst stage (3.5 days) because the device transfers them into one of the uterine horns and not the oviduct. However, some customers have been successful using 8 cell, morula embryos.
6. Select a media you have used which gives you the best success in incubating your embryos. We recommend using KSOM media (Millipore #MR-106-D) and transferring 12 to 20 embryos.
7. Gooseneck lighting is highly recommended to help locate the cervical opening.
8. Also, we suggest using conscious, calm, and unagitated mice. The female mouse in the video on our website is not sedated or anesthetized. (<http://www.paratechs.com/nset.htm>)
9. **We do not recommend the use of lubricants.**
10. We find it relatively easy to keep the female still and reduce squirming by placing the mouse on top of the cage so she can grip the wires and use the holding technique as demonstrated in the video.
11. Then, raise the hind legs, insert small speculum and remove, insert large speculum, adjust gooseneck lighting to help identify the cervix and insert NSET. Be patient and do not apply too much pressure when penetrating the cervix. This could cause tissue damage and will likely bend the NSET device making it nearly impossible to use. If the first attempt to insert the NSET is not in the correct location, gently reposition the device and repeat. You will know the device is properly inserted through the cervix into the uterus when the hub of the NSET device touches the end of the larger speculum after insertion.
12. **Immediately remove NSET without releasing pipette plunger.** If plunger is released prior to removal, some embryos will be pulled back into the tip.
13. Inspection of the NSET tip after use is good practice.

Keep in mind this device is designed for a one-time use only. **Repeated use will clog the NSET tip with tissue which could lead to unfavorable results.** Please make sure to read the NSET instruction sheet thoroughly before use. Our studies have given us comparable efficiency to surgery. Please let us know of your trials with the device and feel free to contact us with any questions, we are always willing to help. Our NSET paper can be found in [BioTechniques' November 2009 issue](#). Thank you again for your interest in NSET and we look forward to hearing from you.

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