

mNSET™ Device for Mice 60010 Helpful Hints



FOR TECHNICAL SUPPORT
Please Call +1 (859) 317- 9213 or
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IMPORTANT! Before mNSET Device use please read carefully:

- [mNSET Technical Support Letter](#) • [mNSET Instructions](#) • [mNSET FAQs](#) • [mNSET Helpful Hints](#)

mNSET Device technical support documents can be found on our webpage:

<https://paratechs.com/pages/mice-nset-60010-resource-page>

The mNSET™ (Non-Surgical Embryo and Sperm Transfer) Device for Mice #60010 is manufactured in the USA by an FDA Registered Medical Device Manufacturer and ISO 13485:2003 registered company.

Patent Information: Non-Surgical Embryo Transfer Method and Apparatus, United States Patent 9,615,903.

The following are hints and suggestions from our customers, technicians, and scientists which have proved helpful.

1. Read all of the mNSET Technical Support Letter, Instructions, FAQs and Helpful Hints carefully before beginning your mNSET trials. The instruction insert can be found in each box of mNSET. All support documents can be found at <https://paratechs.com/pages/mice-nset-60010-resource-page>.
2. Prior to actual experiments, practice the mNSET technique on 2.5 dpc pseudopregnant mice without embryos.
3. mNSET is designed to fit snugly on a Rainin Classic PR2, 0.1-2µl or Gilson Pipetman P2, 0.2-2µl pipette for loading embryos and precise measurement of media into the tip of the device.
4. We suggest using conscious, calm, and unagitated mice. This makes it easier to get the mouse in a natural position to find and enter the cervix. The female mouse in the video on our website is not sedated.
5. We use CD1 mice and highly recommend using this strain for your pseudopregnant recipients. We suggest using mice that weigh ≥26g and are at least 60 days old.
6. Embryos should be incubated to blastocyst stage (e3.5) since the device transfers them to one of the uterine horns and not the oviduct. Some end users have been successful using morula embryos.
7. Select a media you have used which gives you the best success in incubating your embryos. For example, use M2 or KSOM medium and transfer 12 to 20 embryos.
8. The mNSET device is only able to pass the cervix during certain phases of estrus and at 2.5 dpc in pseudopregnant mice. Therefore, we strongly recommend the use of 2.5 dpc pseudopregnant mice (after the plug has fallen out) for training purposes and embryo transfers using the mNSET device.

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9. We find it relatively easy to keep the female still and reduce squirming by placing the mouse on top of the cage with a wire rack so she can grab the cage bar surface. Use the holding technique as described in #6 of the mNSET instructions and also demonstrated in the mNSET videos found on our webpage: <https://paratechs.com/collections/art-devices/products/nset-device-for-mice#mnset-60010-videos>.
10. **We do not recommend the use of lubricants.** You may use sterile water or culture media to moisten the specula then shake off excess before insertion into the vagina.
11. Gently insert small speculum into the vagina. The mouse will innately push the speculum out a little. Gently press it back in place so the mNSET device can pass through the cervix and into one of the uterine horns.
12. Optional: Remove small speculum and replace with large speculum. If desired, use an adequate light source such as a gooseneck light and visualize the cervix.
13. Be patient and do not apply too much pressure when finding and penetrating the cervix with the mNSET tip. This could cause tissue damage and will likely bend the mNSET device tip making it nearly impossible to use. If the first attempt to insert the mNSET is not in the correct location, gently reposition the device and repeat.
14. Embryo loss may occur if tip gets bent due to too much pressure applied while finding the cervical opening. Again, gentle repeated attempts are pertinent to mNSET success.
15. You will know the device is properly inserted through the cervix into the uterus when the hub of the mNSET device touches the end of the speculum.
16. To expel your embryos, press the pipette plunger to the first stop. Count to 3. **Do not release plunger.**
17. **Slowly remove mNSET without releasing pipette plunger.** If plunger is released prior to removal, some embryos could be pulled back into the tip.
18. Inspection of the mNSET tip under a microscope after use is good practice. The clear tip mNSET allows visualization inside the tip.

The device is designed for a one-time use only. Repeated use will clog the mNSET tip with cervical tissue. Reuse may render the catheter pliable and no longer rigid enough to pass the cervix. Thus, potentially depositing embryos in the vagina and not the uterine horn as intended.

For Technical Support: Please contact us with any questions by phone +1-859-317-9213, or email info@paratechs.com.