

# Simplified Oocyte Vitrification Protocol


## For MII Oocytes – Gradual Exposure to ES


### ALL PROCEDURES MUST BE PERFORMED AT ROOM TEMPERATURE (22–27°C)


 As referenced in clinical literature, we recommend oocyte vitrification to be performed within 2 hours from time of oocyte retrieval.<sup>1</sup>

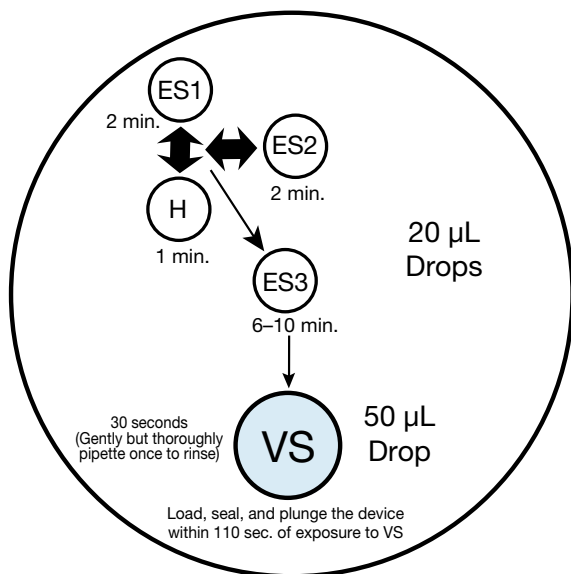
Have all necessary materials, tools, and equipment ready and easily accessible before starting procedure.



1. Aseptically dispense:
  - one (1) 20  $\mu$ L drop of H
  - three (3) 20  $\mu$ L drops of ES (ES1, ES2, and ES3)

 ES1 and ES2 should be in close proximity to H (but not touching).
2. Place MII oocyte(s) (2 maximum), into H and expose undisturbed for 1 minute.
3. Merge ES1 with H. Allow spontaneous mixing for 2 minutes. Use tip of transfer pipette to move ES1 towards H until drops merge.
4. Then merge ES2 with H+ES1. Allow spontaneous mixing for 2 minutes.
5. Transfer oocyte(s) from merged drop to ES3 and expose undisturbed for 6–10 minutes.
6. During the 6–10 minute exposure, aseptically dispense one (1) 50  $\mu$ L drop of VS.
7. Transfer oocyte(s) from ES3 to VS for 30 seconds before loading.
8. Gently but thoroughly pipette oocyte(s) once within VS drop to ensure complete rinse in VS.
 

 To minimize floating, after 10 seconds pipette the specimen(s) to the bottom of the VS drop.
9. Load, seal, and plunge the vitrification device within 80 seconds, not to exceed 110 seconds after initial exposure to VS.
10. Refer to the vitrification device loading protocol and product insert for detailed loading instructions and warnings.
 

 See reverse side for tips.



KEY	
H	HEPES buffered medium with protein (eg., mHTF- HEPES with 20% SSS or equivalent)
ES	Equilibration Solution
VS	Vitrification Solution
	Merge drops
	Transfer specimen to next drop

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## Tips

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- All procedures are to be done at ROOM TEMPERATURE (22–27°C).

**Do not use heated stage.**

- Have all necessary material, tools and equipment ready and easily accessible before starting procedure.
- Device tip should be checked and device should be pre-labeled with patient information before starting.
- Where possible, select only the best quality MII oocytes for vitrification.
- Process only as many specimen(s) as will be loaded per device at one time.

- Minimize exposure of specimens to light during equilibration in ES and VS solutions.

- Transfer specimens between drops using a minimal volume of medium.

- The timing for exposure to VS is CRITICAL:

- Maintain microscopic visualization of specimen(s) by adjusting focus as needed during rapid exposure to VS (specimens will float in the drop).
- Keep transfer pipette tip close to drop for quick manipulations.
- Load, seal and plunge the device within 80 seconds, not to exceed 110 seconds after initial exposure to VS.

1. Song WY, Sun YP, Jin HX, et al. *Chin J Obstet Gyn.* 2010; 45(8):578-82.

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\*Use of vitrification devices with blastocysts are not cleared in the U.S.

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