# Warming of blastocysts using Ultra RapidWarm Blast

The recommended volume should not be changed. Volume changes will affect temperature control as well as osmolality, which may give suboptimal results. All procedures should be performed on a heated stage (solutions at 37 °C) and ambient atmosphere.

#### **Step 1 Prepare**



Ultra RapidWarm™ Blast



SmartBox 3™



Centre Well Dish



Rapid-i™ Cutter



Rapid-i™ Forceps

Fill the SmartBox with liquid nitrogen up to 1 cm from the box's rim and place the lid on top of the box. Always maintain a sufficient level of liquid nitrogen in the SmartBox.

Place at least 0.5 ml and up to 1 ml of warming solution into a dish.

Place the lid on and warm to 37 °C.

Do not place Ultra RapidWarm Blast in a  $\rm CO_2$  incubator.

37 °C

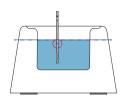
### Step 2 Move RapidStraw to SmartBox

Collect blastocyst(s) from long term storage. Place the Rapid-i CryoCane with Rapid-i Goblet and the Rapid-Straw in the SmartBox.

Remove the RapidStraw from the Rapid-i Goblet and place it in the slit of the lid where the magnet is located.

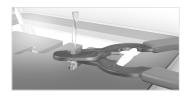


The lowest black mark of the Rapid-Straw must always be submerged in liquid nitrogen.



### Step 3 Open RapidStraw

Hold the RapidStraw with your fingertips or Rapid-i Forceps. Cut the Rapid-Straw just above the black tab of the Rapid-i, using the Rapid-i Cutter.



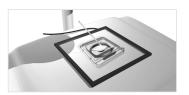
Lift the Rapid-i out of the RapidStraw using the Rapid-i Forceps, just enough to grasp the end with your fingertips.



Ensure that RapidStraw is opened by cutting, before it is removed from liquid nitrogen.

## Step 4 Expose to Ultra RapidWarm Blast

Quickly (within 1 second) but carefully, move the Rapid-i and plunge the tip into the warming solution.



Verify that the blastocyst(s) are released in the medium and then remove the Rapid-i.

The total exposure time, from plunging the blastocyst into the warming solution should be 2 minutes.

Ultra RapidWarm Blast: 2 minutes

Rinse the blastocyst(s) in culture medium several times and then incubate until further use.

