

Construction of a Dino D&E Simulation Model

Dino D&E: Bringing Abortion Training Back from the Brink of Extinction

OVERVIEW

Residents and students will practice the D&E technique using the simulation tool in coordination with associated lectures. The D&E simulation will require residents to practice ultrasound-guided removal of plastic pieces (representing the fetus) suspended in a gelatin-based medium using the standard methods of practice.

MATERIAL LIST

24 oz Tupperware | 64 oz Tupperware | T pins | Beef Gelatin Powder | Pool Noodle | Box Cutter | Knife | Ping Pong Balls | Measuring Cup | Plastic Dinosaurs (2 sizes for a 14- & 18-week model)

ASSEMBLY

Prepare the Dinosaur Models: Cut the tails off of the 14- and 18-week models. For the 18-week model, cut off the dinosaur head and dispose of it. The ping pong ball will represent the head. For the 18-week model, separate the torso from the extremities.

18-week Model: You will need the 64oz. Tupperware, 7 scoops of gelatin, 28oz. of cold water and 28oz. of hot water. You will also need a T pin, the larger dinosaur model and the ping pong ball. Put 7 scoops into the Tupperware, then add 28oz. of cold water followed by 28oz. of hot water. Stir to dissolve the gelatin powder. Place the dinosaur torso and limbs in the gelatin. It is important to place them long ways in the Tupperware so the model is either breech/cephalic when performing the simulation. To place the ping pong ball, cut an X into the ball, place it into the gelatin for a moment to allow the air to escape, then insert the T pin through the Tupperware and ping pong ball. Leave space between the ball and the wall of the Tupperware. Let this model set in the fridge for at least 24 hours.

14-week Model: You will need the 24oz. Tupperware, 2.5 scoops of gelatin, 10oz. of cold water, 10oz. of hot water and the small dinosaur. First, put 2.5 scoops in the Tupperware, then add 10oz. of cold water, followed by 10oz. of hot water. Stir to dissolve the gelatin powder. Next, add the dinosaur to the Tupperware and place the dinosaur long ways in the container. Let the model set in the fridge for at least 24 hours.

Cervix: You will need a large knife and a pool noodle. Cut the end of the noodle so you have a 2-inch-thick slice. Carve the center of the noodle to create a 2-finger-width diameter center. Cut an entry point into the Tupperware. We recommend doing this close to the time of the simulation to prevent gelatin from leaking out. Using the box cutter, cut a shallow hole out of one end of the Tupperware wall. (Goal size: 2 finger-widths) Using the hot glue gun, glue the "cervix" to the Tupperware, aligning the holes of both pieces.

Simulation: You will need an ultrasound, the models, forceps and a drape. You will be able to ultrasound directly on the gelatin surface without using ultrasound gel. Drape over the probe to better simulate an actual procedure. Instruct your learners to analyze the ultrasound screen for fetal parts and extract using forceps. It is important to minimize trauma to the gelatin while extracting to reduce artifact on the screen.

CONTACT INFORMATION & ASSEMBLY TUTORIAL VIDEO

Dr. Luann Racher: mlracher2@uams.edu | Carolina Coleman: colemancarolina@outlook.com