

Instructions for Low Resource Uterine Size Model

This easy-to-construct model can be used to train providers for correct estimation of gestational age in the first trimester of pregnancy. The model can be used either inside a bag representing the vaginal introitus, or on its own. The uterine sizes listed in the table below are averages for many women and do not include the cervix in the measurement.

Correct estimation of gestational age in a patient depends on the woman's body size and the position of the uterus. We recommend training providers both with a model and with clinical exams.

Supplies

Rags	Scissors
Thick tape (like duct tape)	Paper or cloth bag
Measuring tape or ruler	Elastic band

Instructions

1. Gather supplies (A)
2. Cut rags into smaller pieces which can be fashioned into a ball approximately the correct size
3. Wrap tape around the ball of rags to make a shape resembling a uterus
4. Continue to tightly wrap tape until you are satisfied with the shape (B)
5. Fold and roll a small piece of cloth into the shape of a cervix (C)
6. Firmly attach the cervix to the body of the uterus (D, E)
7. Measure the uterus to see which gestational age it represents – continue to wrap more tape/rags or cut parts away as necessary (E, F)
8. Attach the uterus to the inside of a bag using thin strips of tape as cardinal ligaments (F)
9. Fold open the outside edge of the bag and wrap an elastic band around the opening to create a vaginal introitus (G)

Measurements

Volume of gravid first trimester uteri*

Weeks Gestation	Volume (mL) ^a	Length (cm)	AP width (cm)	Transverse width (cm)
5	79 ± 16	7	4	5.5
6	109 ± 21	7.5	4.5	6
7	161 ± 17	8	5.5	7
8	190 ± 17	8.5	6	7.5
9	249 ± 26	9	6.5	8
10	296 ± 12	9.5	7	8.5
11	339 ± 25	10	7.5	9

*Volume data adapted from Goldstein, S.R., et al., *Estimation of nongravid uterine volume based on a nomogram of gravid uterine volume: its value in gynecologic uterine abnormalities*. *Obstetrics and gynecology*, 1988. **72**(1): p. 86-90.

^a $V = 0.52 \times (L \times AP \times T)$, where V = volume, L = length, AP = width in the anterior-posterior dimension, and T = width in the transverse dimension

A. Supplies



B. Uterine forms



C. Making a cervix



D. Measuring the uterus



E. Finished models



F. Attaching uterus to bag



G. Bimanual exam

