

Table 2. Common definitions of ultrasound biometry parameters and estimates of accuracy for predicting gestational age

Parameter	Description	Notes	Approximate accuracy of dates	References
Mean sac diameter	The mean of 3 orthogonal sac "inner to inner" diameter measurements (mm). Cursors should be placed on the gestational sac and not the surrounding echogenic region.	Should not be averaged with the CRL. Should not be used once CRL can be measured. GA = 30 days plus MSD measured in mm.	4 to 11 days	Grisolia (2003) ³¹ Daya (1993) ³⁰
Crown-rump length	The crown-rump length is the longest straight line length of the embryo from the outer margin of the cephalic end to the rump. The neck position should be neutral.	The best CRL or the average of several satisfactory measurements should be used.	3 to 8 days	Grisolia (2003) ³¹ Daya (1993) ³⁰ Sladevickus (2004) ⁴²
Biparietal diameter	Axial plane through a symmetrical calvarium that includes the third ventricle, thalami, falx cerebri, and cavum septi pellucidum anteriorly and the tentorial hiatus posteriorly. The calipers should be placed at the maximal diameter from the outer edge of the proximal skull wall to the inner edge of the distal skull.		1st T: 3 to 8 days 2nd T: 7 to 12 days	Grisolia (2003) ³¹ Daya (1993) ³⁰ Sladevickus (2004) ⁴² Bovicelli (1981) ²⁸ Hadlock (1984) ⁷² Hadlock (1987) ⁷³ Hadlock (1991) ⁵⁴ Chervenak (1998) ⁶¹
Head circumference	The head circumference is obtained in the identical plane to the BPD. The trace/ellipse should follow the outer perimeter of the bony skull, not the overlying skin, as that will falsely increase the head circumference	The cerebellum is not included in this image.	2nd T: 7 to 12 days	Hadlock (1984) ⁷² Hadlock (1987) ⁷³ Hadlock (1991) ⁵⁴ Chervenak (1998) ⁶¹
Abdominal circumference	True axial plane at the level of the bifurcation of the portal vein (into right and left branches) and the stomach. The measurement should be as tight to skin as possible.		2nd T: 7 to 15 days 3rd T: 18 to 35 days	Hadlock (1984) ⁷² Hadlock (1987) ⁷³ Hadlock (1991) ⁵⁴ Chervenak (1998) ⁶¹
Femur length	Both the femoral head or greater trochanter and the femoral condyle are simultaneously visualized. The cursor should be placed at the junction of bone and cartilage and only the bone measured	Ideally, the ultrasound transducer should be aligned perpendicular to the long axis of the femur. Varies with ethnicity.	2nd T: 7 to 17 days 3rd T: 21 days	Hadlock (1984) ⁷² Hadlock (1987) ⁷³ Hadlock (1991) ⁵⁴ Chervenak (1998) ⁶¹

T: trimester