

## CROWN RUMP LENGTH (CRL) MEASUREMENT CRITERIA

Crown-rump length (CRL) is an extremely important biometric measurement. Accuracy in measurement is critical for pregnancy dating, aneuploidy risk assessment, and for ongoing management of pregnancy.

CRL may be measured by transabdominal or transvaginal technique.

## The following CRL criteria must be met.

1. Fetus should fill the majority of image space:

The fetus should occupy more than 2/3 of the image width.

The entire crown-rump must be seen.

2. Fetus is imaged in midsagittal plane:

Profile, spine, and rump are visible

Ribs, stomach and heart should not be seen in this plane.

3. Fetal head is in a neutral position:

The fetal head must be neutral without hyperflexion or hyperextension

## **Hyperflexion:**

Fetal head is flexed with no free space (amniotic fluid) seen between lower chin and anterior neck **Hyperextension**:

Fetal is extended with an angle between lower chin and anterior neck of greater than 90 degrees

4. Fetus is horizontal to the ultrasound beam

The ultrasound beam should be as perpendicular to the fetus as possible.

5. Correct caliper placement:

Caliper crossbars should be placed on outer border of the skin on the fetal head and rump.

The caudal caliper should not be on the distal spine, posterior thigh or include limbs.

The maximum length of the fetus from the cranial to caudal caliper should be measured in a straight line parallel to the long axis of the fetus.

NOTE: Measure the CRL three times and report the **mean** of three acceptable measurements.

