

## **Uterine artery Doppler and placental disease in healthy nulliparous patients**

Uterine artery Doppler is necessary to complete and optimize the assessment for maternal vascular malperfusion of the placenta and to complete and optimize the risk assessment for placenta related adverse obstetric outcomes including preeclampsia.

Nulliparity has a 3% to 5% incidence of preeclampsia. More than half of all cases of preeclampsia occur in healthy first time pregnant women. 25% of babies born to mothers with preeclampsia are growth restricted and 30% are premature.

\*Hypertension. 2014;64:644-652

One in 12 healthy nulliparous women develop maternal vascular malperfusion placental pathology, and these pregnancies had a 4.5 times higher risk of developing preeclampsia or delivering a SGA neonate compared with those without this pathology.

\*Obstet Gynecol. 2017 Nov;130(5):1112-1120.

10% of healthy nulliparous woman demonstrated chorion regression syndrome or utero-placental vascular insufficiency

- 4.8% developed hypertension in pregnancy, 3.0% delivered <34+0 weeks' gestation, and 10.7% had birth weight <10th percentile for gestation.

\*AJOG. Morency. vol 210, issue1, supplement , S311, Jan 2014.