

## AMNIOTIC FLUID

Amniotic fluid is initially produced by amniotic membrane, then modified by fetal urination, swallowing and circulation through the respiratory tract. Maximum volume is 1000/ml around 36-38 weeks, then decreases. Normal AFI >8cm

Polyhydramnios: (too much amniotic fluid > 2000 ml, AFI > 24)

- Causes: swallowing difficulties (esophageal atresia), other GI abnormalities (duodenal/intestinal atresia), diaphragmatic hernia, abdominal wall defects, abnormalities of the central nervous system (anencephaly, spina bifida), twins, diabetes, infections with varicella, parvovirus or cytomegalovirus, idiopathic
- Complications: preterm labor, placental abruption, uterine dysfunction, postpartum hemorrhage, abnormal presentations
- Interventions: check for isoimmunization in Rh-negative women, amniocentesis to remove fluid, amniotomy may cause cord prolapse and need for c-section

Oligohydramnios: (too little fluid, AFI < 5)

- Causes: decreased urine production (renal agenesis, urethral atresia), prolonged or postdates pregnancy/uteroplacental insufficiency, premature rupture of membranes
- Complications: pulmonary hypoplasia, IUGR, musculoskeletal deformities such as clubfoot, amniotic band amputations, fetal intolerance of labor, fetal hypoxia
- Interventions: amnioinfusion, delivery

**Consult HCMC Perinatologist by phone at OBTU for further work-up and management.**

Meconium-stained: (passage of meconium in utero leading to greenish discoloration)

- Amnioinfusion and suctioning at perineum before delivery of the shoulders no longer recommended.
- Intubation with suctioning to prevent meconium aspiration if infant NOT vigorous.
- NBICU to attend delivery.

REFERENCES:

ALSO Course Diagnostic Ultrasound on L&D  
AHA Neonatal Resuscitation Guidelines