

The background of the slide is a light-colored, marbled pattern with intricate, swirling veins in shades of grey and white. A large, light-grey rectangular box is centered on the page, containing the title text. On the left side of this box, there is a vertical white bar. At the bottom of the slide, there is a thin horizontal white line.

# Preterm Labor and Birth

# Preterm Birth

- Largest cause of perinatal M&M in non-anomalous infants in the US
- 70% of infant and neonatal deaths occur in preterm infants
- Multiple long term sequelae
- Infants <1500 gm 200x more likely to die, and 10x more likely to have neurological impairment if they survive (c.f. >2500gm)

# Terms

- Premature infants < 37 weeks gestation
- Low Birth Weight < 2500 gms
- Very Low Birth Weight <1500gm
- Some LBW infants are term! A higher percentage of LBW infants are term in underdeveloped countries

# Morbidities in Preterm Infants

- Respiratory Distress Syndrome
- Bronchopulmonary Dysplasia
- Intraventricular Hemorrhage
- Patent Ductus Arteriosus
- Necrotizing Enterocolitis
- Retinopathy of the Newborn
- Apnea, Sepsis

# Risk Factors

- Race
- Low SEC
- Poor nutritional status
- Low Pre-pregnancy wt
- Previous Hx of PTL
- Poor Prenatal care
- <18 or >40 yrs of age
- Smoking, stress
- Incompetent Cervix
- Multiple Gestation
- Placenta Previa
- Chorioamnionitis
- Abruptio Placenta
- Pre-eclampsia
- **Note: approximately 1/2 of all preterm births have no risk factors!**

# Classifications of PTL and Delivery

- Spontaneous (70-75%)
- Preterm PROM
- Amnionitis
- Incompetent Cervix
- Indicated (20-25%)
- IUGR
- Placenta Previa
- Abruptio Placenta
- Chronic Hypertension
- Diabetes
- Pre-eclampsia

# Preterm Labor

- Diagnosis: Intrauterine contractions that effect cervical change that occur prior to 37 weeks' gestation
- Approx 40% of patients presenting in PTL and treated with placebo will go on and deliver at term (high false positive)
- 25-50% of patients will present with either PROM or have >3cm cervical dilitation, or are evaluated and discharged without treatment and subsequently deliver prior to 37 weeks gestation (18% false neg)
- Presenting Symptoms: Pelvic pressure, Increased vaginal discharge, backache, menstrual cramps

- Exams may be difficult, particularly at early dilatation (< 3cm, consistency of cervix)
- 3 cm or greater cervical dilation usually results in failed tocolysis (i.e. delivery within 24-48 hours)

# Cervical Sonography

- Cervical sonography can be used to measure the length to predict PTL
- Cervical length of 3 cm is usually good evidence that there is no cervical effacement
- 18 mm or less, with funneling or “beaking” of the membranes is a strong predictor of PTL

# Fetal Fibronectin

- Protein normally seen in fetal membranes and decidua
- Can be found in term patients with impending labor, but is considered abnormal if found in cervical mucous at > 20 wks gestation
- Can be predictive of preterm labor within 7 days