

# BIRTH

[http://biology.clc.uc.edu/fankhauser/Labs/Anatomy\\_&\\_Physiology/A&P203/Reproductive\\_Sys\\_Anat/Birth\\_Videos/Birth\\_Videos.html](http://biology.clc.uc.edu/fankhauser/Labs/Anatomy_&_Physiology/A&P203/Reproductive_Sys_Anat/Birth_Videos/Birth_Videos.html)

rvsd 31 May 2012

**Nagele's rule:** subtract 3 mo from day of last period, add 7 days. 10% on day, 50% within week

**Perineum:** Check ischial tuberosities for width of birth canal  
Pubic symphysis softens in last month or so

## INDICATORS DURING PREGNANCY:

Skin pigmentation "mask-like" on face, dark line on abdomen center, areolas darken  
Maternal Blood Pressure should not rise above 130/90  
"Lightening" ~two days before delivery, head engaged in canal, easier to breathe  
Presentation check for location of fetal heart beat (ticking watch)  
**above navel is breech... CAUTION**  
**below navel is occipital**

**STAGES OF LABOR:** Triggered by stretching of uterus, estrogen, cervix distortion, oxytocin

- 1) **DILATION OF CERVIX** : regular contractions, relatively mild
  - a) Takes 10-20 hrs, expressed in cms (10) or "fingers" (4) (palpate rectally)
  - b) Do not push hard, can rupture cervix, hemorrhage. Head makes good wedge. The four cranial bones can move, accommodate to shape of birth canal; fontanel
- 2) **DELIVERY OF BABY:** "Show" of blood tinged mucus as cervix is opened (1-2 hours, longer with epidural) (fetal monitor? Increases caesarean frequency)
  - a) **crowning:** top of head first appears at vaginal orifice.  
Massage perineum to prevent tearing (hospitals do **episiotomy** [vulva cut])
  - b) head is born (largest part)
  - c) shoulder, arm, then body quickly slides out
- 3) **DELIVERY OF PLACENTA, MEMBRANES:**
  - a) Place baby at breast to stimulate release of oxytocin, stimulating contractions
  - b) do not cut umbilicus until blood has drained into infant
  - c) check placenta to ensure that it is entire (if pieces remain: bleeding and poss. infection)
- [ 4) **"fourth stage"** four hours *post partum* to look for hemorrhage, BP problems in mother]

**Vernix:** prevents bacterial infections and cracking skin. Leave much of it on baby.

**APGAR SCORES:** (Merck Manual, p 2286) 7-10 at 5 min is normal, 0-3 is low

points:	0	1	2
<b>color</b>	blue	extremities blue	pink
<b>respiration</b>	none	slow, irreg	crying
<b>heart rate</b>	none	<100 bpm	>100 bpm
<b>reflexes (nasal)</b>	none	grimace	sneeze, cough
<b>muscle tone</b>	limp	some flexion	active

**Meconium** ["poppy juice"] (mass of cells and bile stored in colon, discharged after birth).

Importance of Breast Feeding

- 1) **Colostrum:** rich in antibodies, deliver maternal Ab to infant, creates passive immunity.
- 2) Special composition of human milk (*see my web page*):  
[http://biology.clc.uc.edu/fankhauser/Cheese/milk\\_content.htm](http://biology.clc.uc.edu/fankhauser/Cheese/milk_content.htm)
  - a: Human milk has about **1/3rd as much protein** as either cow or goat.
  - b: Human milk has **twice the carbohydrate** as either cow or goat
  - c: Human milk has **1/4th the phosphorous** as either cow or goat
  - d: Human has **five times the of vitamin C**. This is not surprising, since of these three species, only humans cannot make vitamin C