Name: Ajibade Opeyemi Melody

Matric No: 18/MHS01/047

Department: Anatomy

Course: PHS 204

**Assignment**

**Lactation**

Lactation is the secretion of milk from specialized glands (mammary glands) to provide nourishment to offspring. Lactation describes the secretion of milk from the mammary glands and the period of time that a mother lactates to feed her young. The process occurs in all female mammals, although it predates the origin of mammals. In humans the process of feeding milk is called breastfeeding or nursing. The chief function of lactation is to provide nutrition and immune protection to the young after birth. In almost all mammals, lactation induces a period of infertility, which serves to provide the optimal birth spacing for survival of the offspring. In most species, milk comes out of the mother’s nipples; however, the platypus (a non-placental mammal) releases milk through ducts in its abdomen. In only one species of mammal, the Dayak fruit bat, is milk production a normal male function. In some other mammals, the male may produce milk as the result of a hormone imbalance. This phenomenon may also be observed in newborn infants as well (for instance, witch’s milk). Galactopoiesis is the maintenance of milk production. This stage requires prolactin and oxytocin.

By the fifth or sixth month of pregnancy, the breasts are ready to produce milk. During the latter part of pregnancy, the woman’s breasts enter into the lactogenesis I stage. This is when the breasts make colostrum, a thick, sometimes yellowish fluid. At this stage, high levels of progesterone inhibit most milk production. It is not a medical concern if a pregnant woman leaks any colostrum before her baby’s birth, nor is it an indication of future milk production. At birth, prolactin levels remain high, while the delivery of the placenta results in a sudden drop in progesterone, estrogen, and human placental lactogen levels. This abrupt withdrawal of progesterone in the presence of high prolactin levels stimulates the copious milk production of the lactogenesis II stage. When the breast is stimulated, prolactin levels in the blood rise and peak in about 45 minutes, then return to the pre-breastfeeding state about three hours later. The release of prolactin triggers the cells in the alveoli to make milk.

**Gestation period in a normal female**

The gestation period is how long a woman is pregnant. Most babies are born between 38 and 42 weeks of gestation. Babies born before 37 weeks are considered premature. Babies born after 42 weeks are called postmature. The unborn baby spends around 37 weeks in the uterus (womb), but the average length of pregnancy, or gestation, is calculated as 40 weeks. This is because pregnancy is counted from the first day of the woman’s last period, not the date of conception which generally occurs two weeks later, followed by five to seven days before it settles in the uterus. Since some women are unsure of the date of their last menstruation (perhaps due to period irregularities), a pregnancy is considered full term if birth falls between 37 to 42 weeks of the estimated due date.

A baby born prior to week 37 is considered premature, while a baby that still hasn’t been born by week 42 is said to be overdue. In many cases, labor will be induced in the case of an overdue baby. The average length of human gestation is 280 days, or 40 weeks, from the first day of the woman’s last menstrual period. The medical term for the due date is estimated date of confinement (EDC). However, only about four per cent of women actually give birth on their EDC.A simple method to calculate the due date is to add seven days to the date of the first day of your last period, then add nine months. For example, if the first day of your last period was 1 February, add seven days (8 February) then add nine months, for a due date of 8 November. Irregular menstrual cycles can mean that some women aren’t sure of when they conceived. Some clues to the length of gestation include:

* Ultrasound examination (especially when performed between six and 12 weeks)
* Size of uterus on vaginal or abdominal examination
* The time fetal movements are first felt (an approximate guide only).