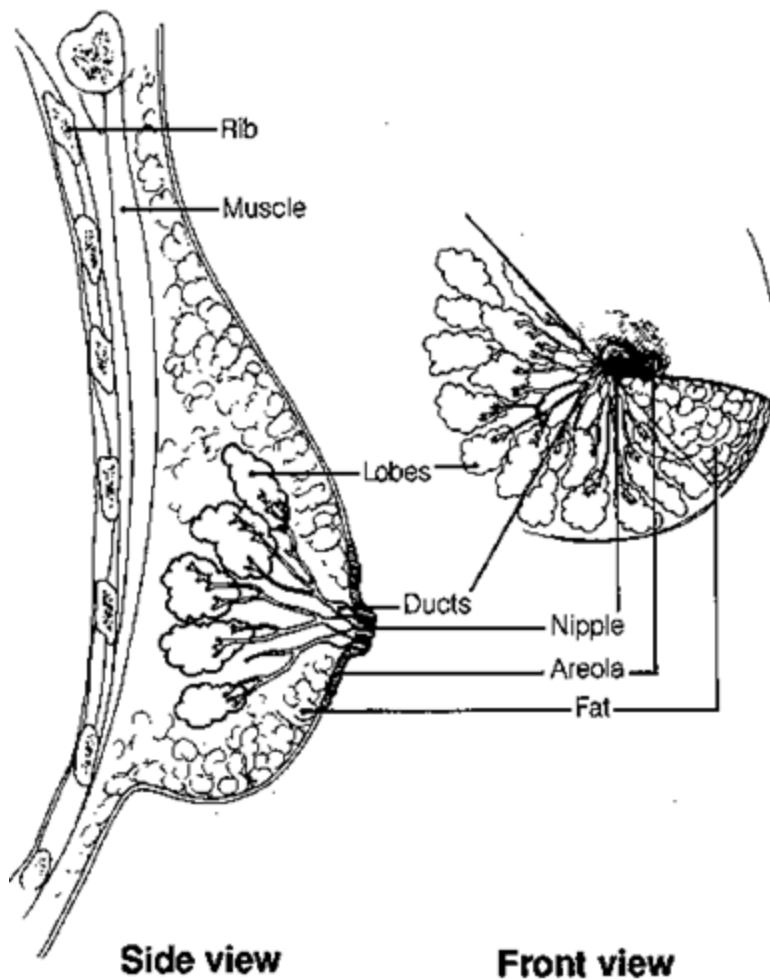


Female Reproductive 'Plumbing' and Physiology

Breast Anatomy

Figure 1. The Breast



Self breast exams

Evidence that teaching breast self exams does NOT decrease breast cancer mortality (large trials in Shanghai and Russia)

Individual experiences of people finding lumps early

Mammogram screening

Changing recommendations for average risk women

Start at 40 years old or 50?

Yearly or every other year?

US Preventative Services Task Force

Start age 50, every other year until age 74

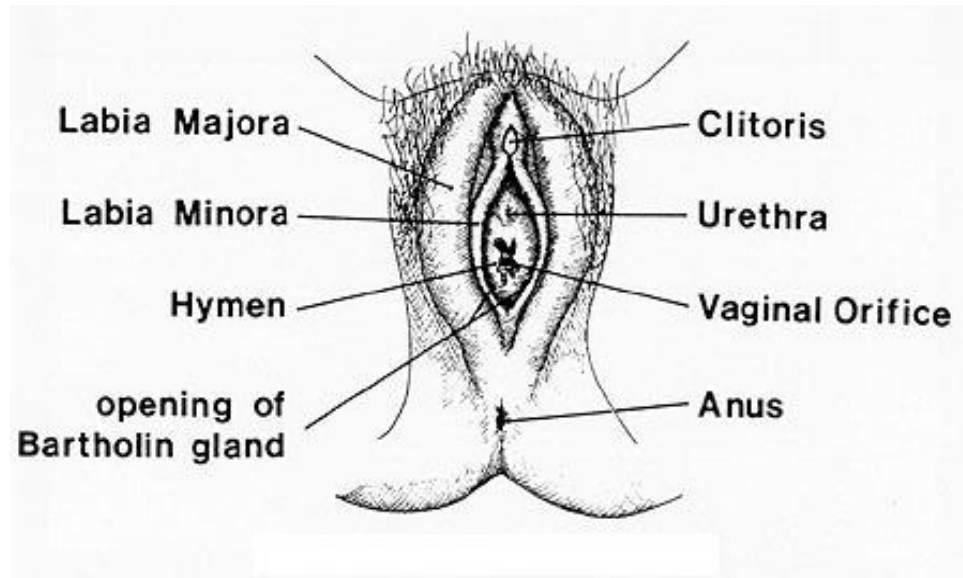
Breast and Chest feeding

Fewer childhood illnesses (infections diarrhea/vomiting/ear infections)

Less diabetes type I, asthma, obesity

Lower risk of breast and ovarian cancer, type 2 diabetes, hypertension

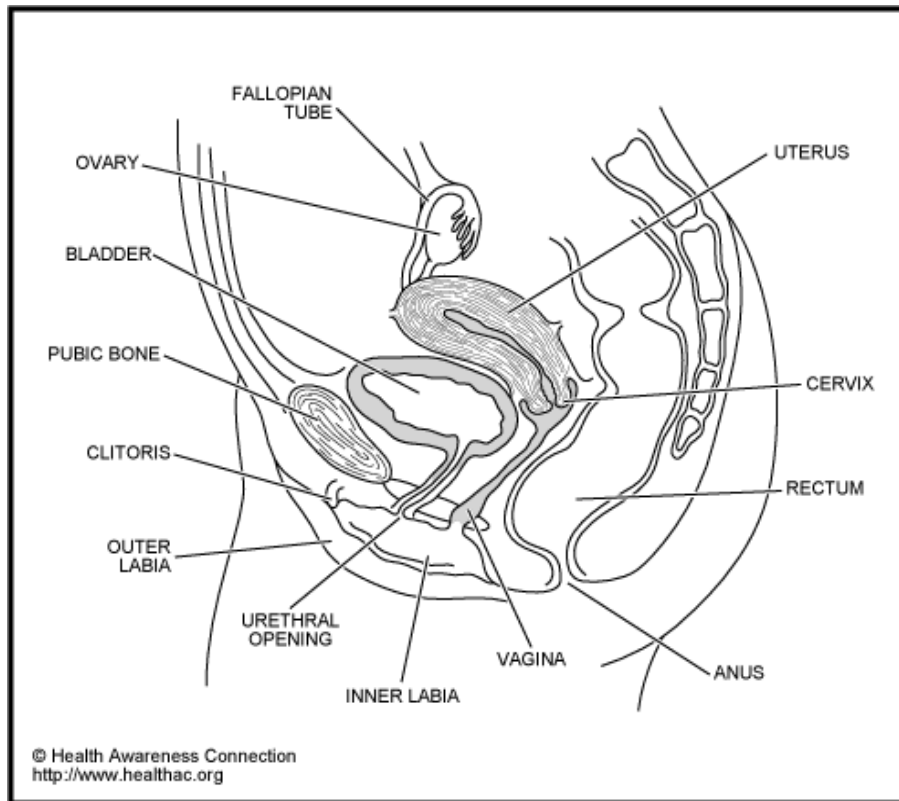
Fewer missed work days



Vagina

Vagina- root of word (1680) from latin “sheath or scabbard”

The vagina is an elastic, muscular tube connecting the cervix of the uterus to the vulva and exterior of the body



The “normal vagina”

ACIDIC environment (normal pH is 3.4-4.4) = good defense vs. pathogenic bacteria, fungi, and protozoa

Discharge is clear to white, mucous-y or thin

Knowing what is an individual’s normal and how that changes over the menstrual cycle is extremely helpful.

Changes in discharge

Vulvovaginal Candidiasis: Yeast

Curdy white discharge, vaginal and vulvar burning

Bacterial Vaginosis (BV)

Discharge is thin and grey, fishy smelling

Trichomoniasis

Yellow frothy discharge, sexually transmitted between partners, treated with antibiotics

Menstrual Cycle

Standard cycle length 28 days (21-35)

Average blood loss 20-80cc

Average duration 3-6 days

- Under the influence of multiple hormones

Phases of menstrual cycle:

Ovarian Phases:

Follicular Phase

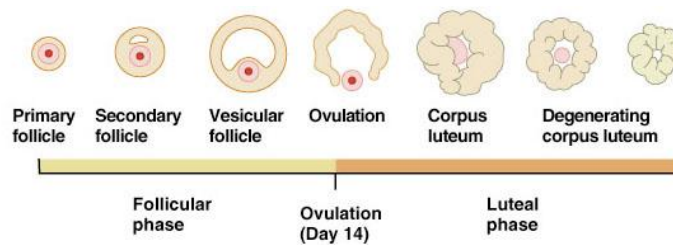
Ovulation

Luteal Phase

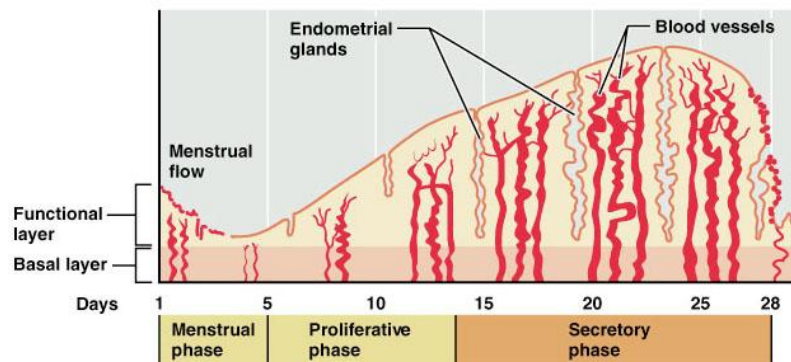
Uterine Phases

Proliferative

Secretory



(c) Ovarian cycle



(d) Uterine cycle

Pap Screening: Start at age 21, If results normal- every 3 years until 30, If normal 30-64 every 5 years with HPV testing

Benefits of screening pelvic exam? If a woman has no symptoms/no concerns there is NO benefit of a routine exam

What kind of exams do young adults/adolescents need?

If no symptoms- STI screening (can be done with urine), birth control as needed, **no need for pelvic exam**

Sexually transmitted infections (STIs):

1/5 people in US have an STI
2/3 of all STI's in <25 years old
15% of infertility associated with history of STIs

STIs often without symptoms

Bacteria infects the cervical os

Chlamydia:

most frequent curable infection

routine testing on sexually active women <25 years old

Gonorrhea:

second most frequent infection

tested with Chlamydia

Treatable with antibiotics

HPV and Genital Warts

Small tags on labia, vagina, anus

Can be treated BUT not cured

Very, very common: transmitted by skin to skin contact....

HPV also can cause cervical changes and cervical cancer: abnormal pap test

HPV Vaccine

Prevention of cervical cancer and genital warts as well as precancerous lesions (CIN, VIN, VaIN), in girls and women 9-26 years of age

Given as two or three injections in upper arm over 6 months (0, 2, 6 months or 0, 6-12 months)

Recommended for ages 11-12, catch up doses until age 26, 45

Challenges Related to HPV Vaccine Use

Poor understanding about HPV, link to cancer

Getting older children, young teens in for two immunizations over a 6-month period

Reaching the most vulnerable teens

Cost: ~\$360

Coverage by third-party payers for >26 years old

Acceptability of HPV vaccines

Social context of vaccine recommendations

Use in males now recommended thru age 21

Herpes Simplex Type 1 and 2

Initial and subsequent infections

200,000-1 million cases/year

1/5 adolescents and adults have had a infection

Treatable NOT curable

Life threatening STIs

HIV Human Immunodeficiency Virus

Hepatitis B

Hepatitis C

All transmitted through:

Blood

Semen

Vaginal discharge

Breast milk

What to learn:

Curable versus treatable infections

All “H’s” are not curable

How to prevent or reduce transmission

For more information: www.cdc.gov