

# Abnormal Uterine Bleeding

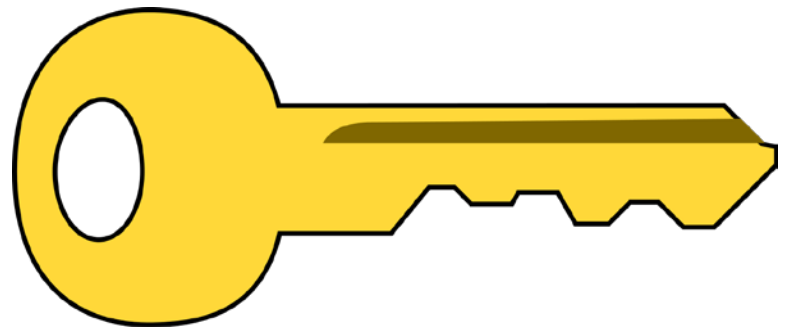
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# What You Need to Know

- ☑ Abnormal uterine bleeding (pre-menopausal)
  - Evaluation
  - Treatment
- ☑ Post-menopausal bleeding
  - Evaluation
  - Treatment
- ☑ Endometrial cancer overview
- ☑ Resources for patients

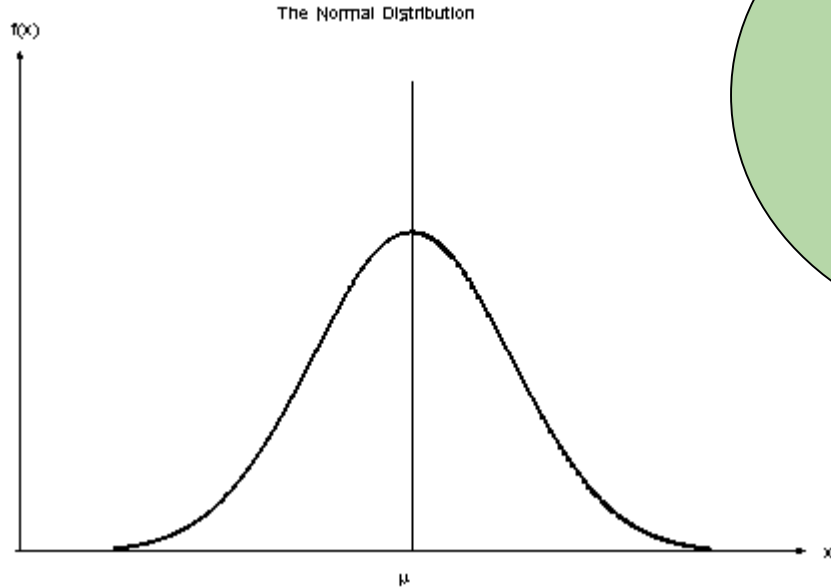


# Key Concepts



- Women with AUB who are **45 and older or haven't responded to treatment** should have endometrial biopsy
- **Postmenopausal** women with vaginal bleeding can be evaluated by **either ultrasound or biopsy** as a first step
- Post-menopausal women with an **endometrial thickness of >4mm** on ultrasound should be evaluated for endometrial cancer
- Endometrial cancer is associated with obesity and **increased cardiovascular risk**

# Abnormal Uterine Bleeding



<24 or >38 days  
<4.5 or >8 days  
<5ml or >80ml

# Evaluation of AUB

## **PALM - structural causes**

**P**olyp

**A**denomyosis

**L**eiomyoma

**M**alignancy and Hyperplasia



## **COEIN - non-structural causes**

**C**oagulopathy

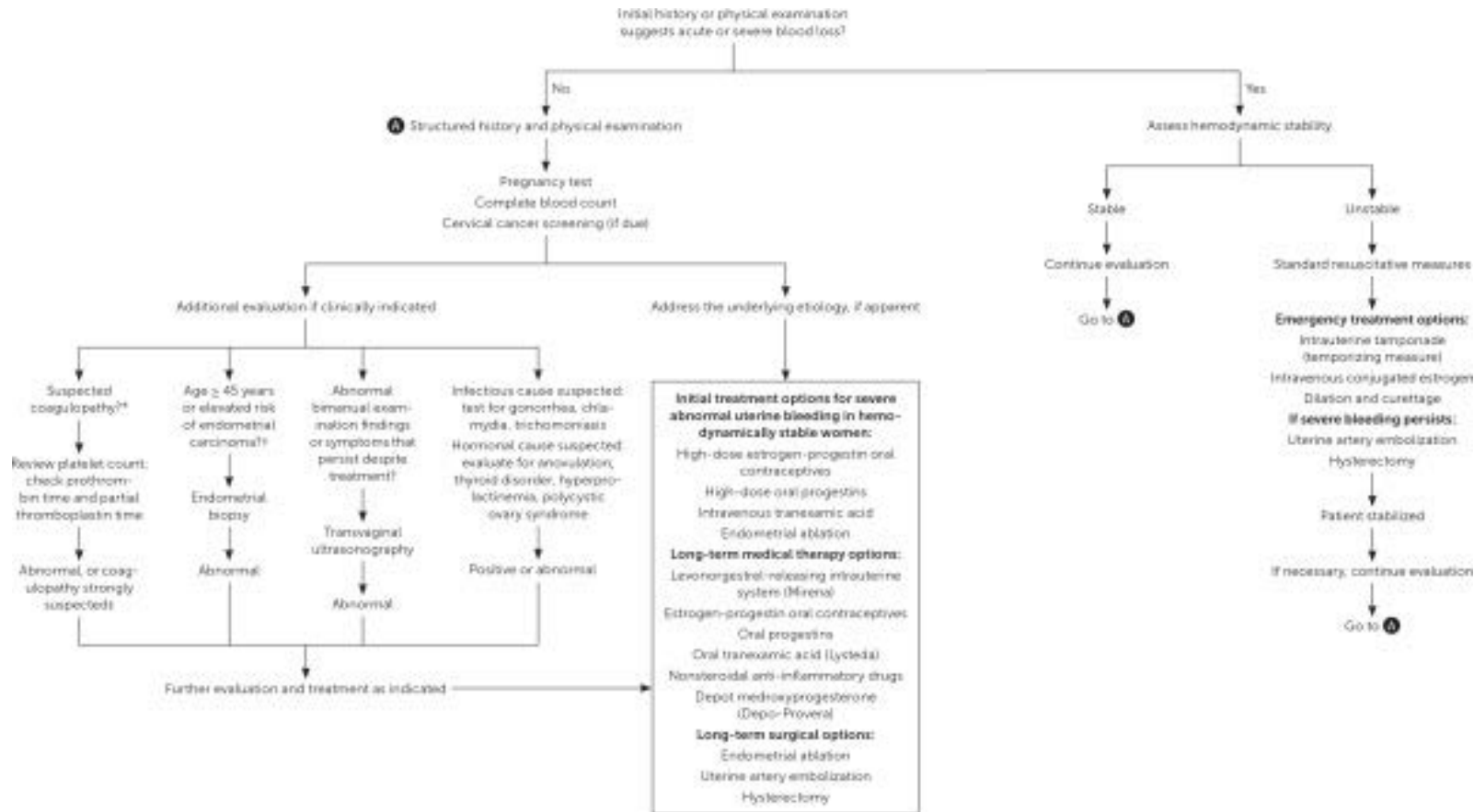
**O**vulatory dysfunction

**E**ndometrial

**I**atrogenic

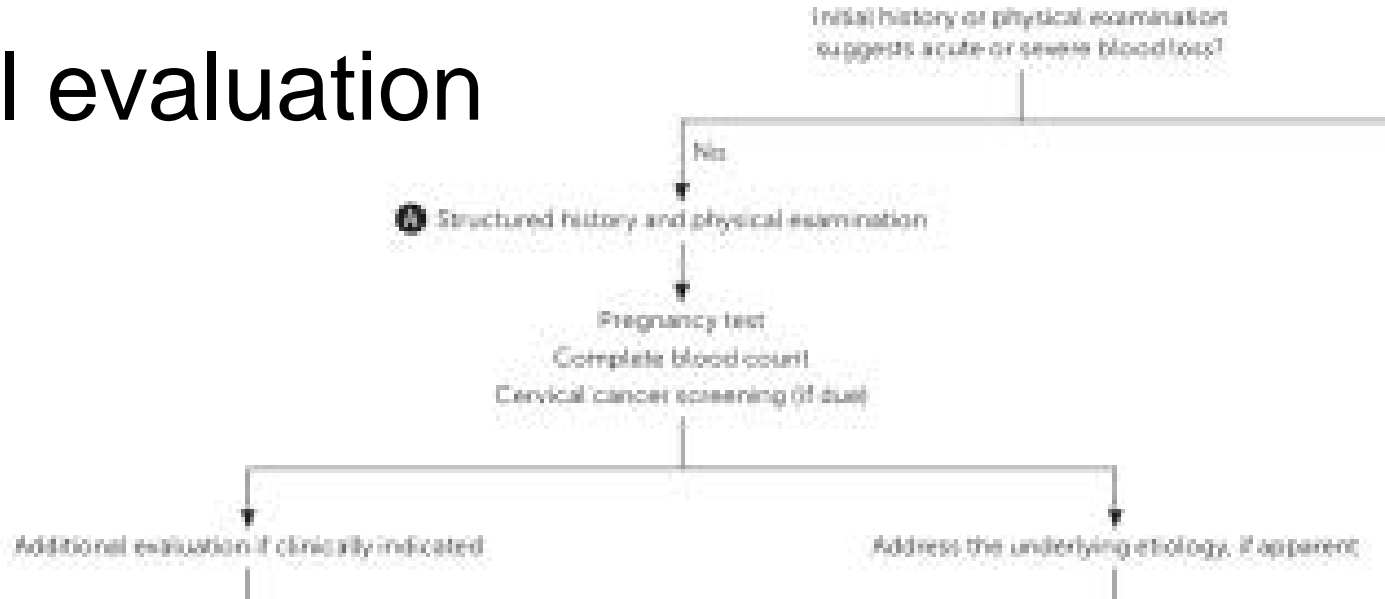
**N**ot yet classified



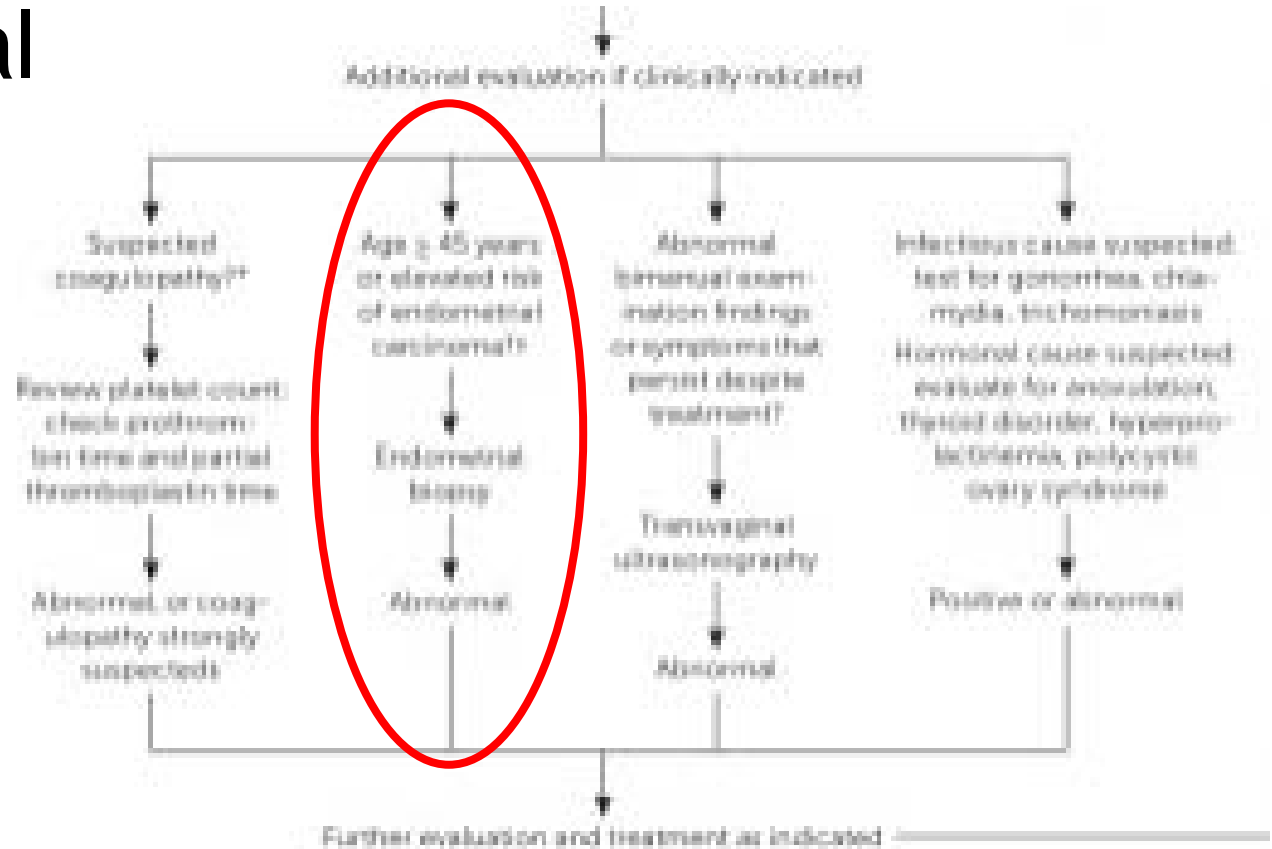


Wouk and Helton, Abnormal Uterine Bleeding in Premenopausal Women. AFP 2019; 99(7): 435-443.

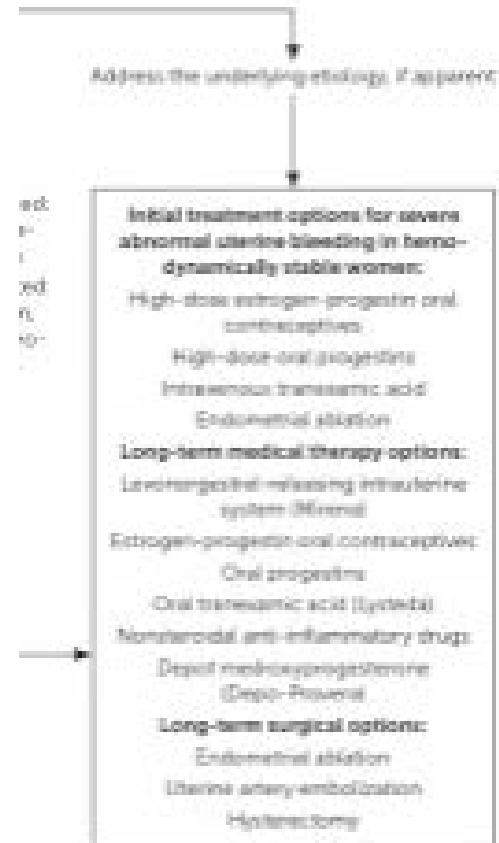
# Initial evaluation



# Differential Diagnosis



# Treatment



# Audience Question

A 28yo with PCOS and obesity has always had irregular periods but usually at least every three months. They now report no periods for six months. Should they have an endometrial biopsy?

- A. Yes
- B. No



# Evaluation of Pre-Menopausal Patients

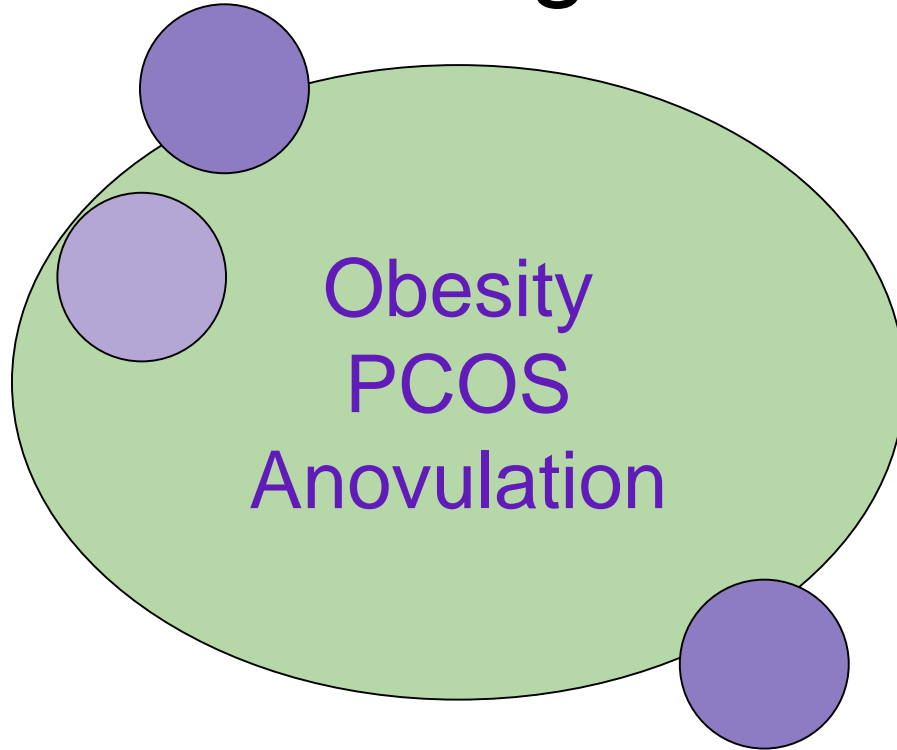
- Test for endometrial cancer is endometrial biopsy
- Ultrasound may be useful for other diagnoses

# Which Pre-Menopausal Patients Should Have Endometrial Biopsy?

- No general population screening
- ACOG recommendation:
  - **>45 with abnormal uterine bleeding**
  - **<45 if h/o unopposed estrogen and not responding to medical management**
- People with Lynch syndrome (HNPCC) starting age 35

Management of acute abnormal uterine bleeding in nonpregnant reproductive-aged women. Committee Opinion No. 557. American College of Obstetricians and Gynecologists. Obstet Gynecol 2013; 121: 891-6

# What Are Clues to Unopposed Estrogen?



# Treatment of AUB

Acute:

- IV Conjugated equine estrogen
- High dose oral contraceptives
- High dose oral progestins
- IV Tranexamic acid

# Treatment of AUB

Long term:

- Oral contraceptives
- Levonorgestrel IUD
- PO or IM progestins
- Tranexamic acid
- NSAIDs
- Surgical - ablation, embolization, hysterectomy

# Audience Question

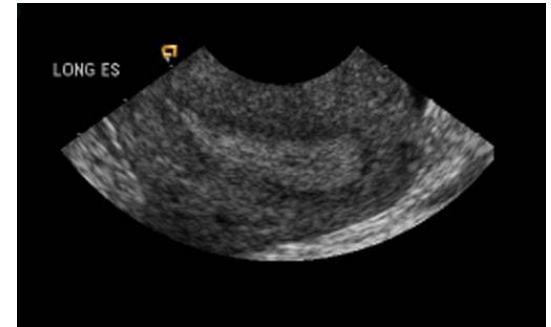
A 52yo patient, post-menopausal for 5 years, has blood-tinged vaginal mucus for 1 month. Which test would you do for evaluation of the bleeding?

- A. Pap test
- B. Endometrial biopsy
- C. Transvaginal ultrasound
- D. Hysteroscopy
- E. Either B or C



# Endometrial Biopsy vs. TVUS

- Either is fine as an initial test for post-menopausal women
- Can start with TVUS but will need further eval if endometrial stripe is >4mm
- TVUS is particularly useful if EMB was insufficient



The role of transvaginal ultrasonography in the evaluation of postmenopausal bleeding. ACOG Committee Opinion No. 440. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2009;114:409–11.

# Endometrial Biopsy

- Suction biopsy device (Pipelle, Endocell)
- Can aspirate twice
- Consider pt self-administered vaginal lidocaine
- Misoprostol is controversial
- Consider other tests if EMB negative and pt is high risk or sx continue

# EMB Technique

- Consider in-office manual vacuum aspiration

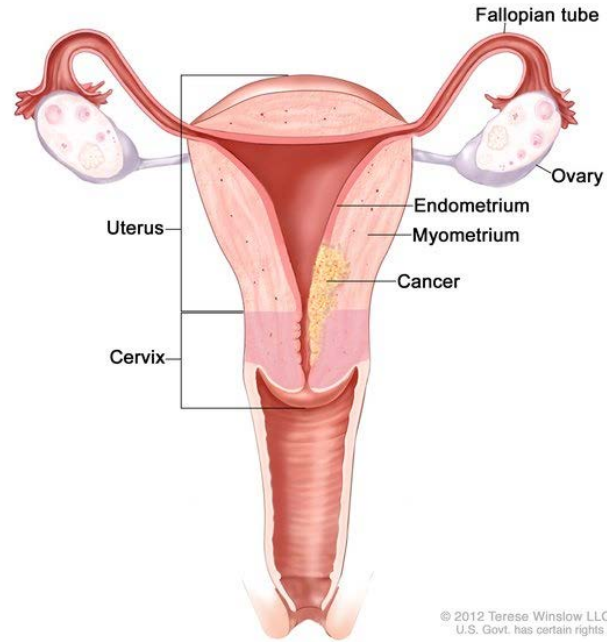


# Endometrial Cancer Facts

- Fourth most common cancer among women
- Increasing in the US and other developed countries
- 75% diagnosed in early stage
- Mean age at diagnosis is 60

National Cancer Institute, <http://www.cancer.gov/research/progress/snapshots/endometrial>  
SGO Clinical Practice Endometrial Cancer Working Group, Burke WM, Orr J , Leitao M et al. for the Society of Gynecologic Oncology Clinical Practice Committee. Endometrial cancer: A review and current management strategies: Part I. Gynecologic Oncology 134 (2014) 385–392.

## Stage II Endometrial Cancer



# Common Endometrial Cancer Presentation in Post-Menopausal Patients

- Abnormal bleeding or bloody vaginal discharge >90%
- Pap abnormalities

# Pap Abnormalities Related to Endometrial Cancer

- Endometrial cells present
- Atypical glandular cells (may specify endometrial cells)
- Endometrial adenocarcinoma

Solomon D, Davey D, Kurman R et al. for the Forum Group Members and the Bethesda 2001 Workshop. The 2001 Bethesda System: Terminology for Reporting Results of Cervical Cytology. *JAMA*. 2002;287(16):2114-2119.

# AES Question

Which of the following is NOT a risk factor for endometrial cancer?

- A. tamoxifen use
- B. oral contraceptive use
- C. obesity
- D. age



# Risk Factors & Relative Risk

Unopposed estrogen therapy	2-20
Tamoxifen use	6-8
Lynch syndrome (HNPCC)	6-20
Obesity BMI $\geq 40$	7.1
Obesity BMI 35-39	4.5
Obesity BMI 30-34	2.5

Older age	2-3
Late menopause (over 52)	2-3
Early menarche (younger than 12)	1.5-2
Late menarche	0.8
OCP use	0.7
Cigarette smoking	0.6

Setiawan VW, Yang HP, Pike MC, et al. Type I and II Endometrial Cancers: Have They Different Risk Factors? Journal of Clinical Oncology 2013; 31(30): 2607- 2618

SGO Clinical Practice Endometrial Cancer Working Group, Burke WM, Orr J , Leitao M et al. for the Society of Gynecologic Oncology Clinical Practice Committee. Endometrial cancer: A review and current management strategies: Part I. Gynecologic Oncology 134 (2014) 385–392.

ACOG Practice Bulletin. Endometrial Cancer. Obstet Gynecol 2015;125:1006–26.

# Lynch Syndrome

- Previously called Hereditary Non-Polyposis Colorectal Cancer syndrome (HNPCC)
- Autosomal dominant
- Associated with colon cancer, also commonly ovarian and endometrial cancer at a young age
- Up to 50% lifetime risk of endometrial cancer
- Can test tumor tissue if available

Lynch syndrome. Practice Bulletin No. 147. American College of Obstetricians and Gynecologists. Obstet Gynecol 2014;124:1042–54.

# SERM risk

- Increased risk with tamoxifen in post-menopausal people only
- No increased risk with raloxifene
- Ospemifene does not seem to have increased risk

# Tamoxifen

- 2-3x increased risk of uterine cancer for post menopausal people
- Risk increases with dose and duration
- No routine screening recommended
- High index of suspicion for any vaginal bleeding or spotting
- No recommendation for progesterone

Tamoxifen and uterine cancer. Committee Opinion No. 601. American College of Obstetricians and Gynecologists. Obstet Gynecol 2014; 123:1394–7.

# Hormone Replacement Therapy

- Systemic HRT – should take progestin
- Vaginal estrogen – ring and pill are lowest risk
  - Vaginal ring is best tolerated

# Hyperplasia

Aka endometrial intraepithelial neoplasia

Can be with or without atypia

- Without atypia: 1-3% chance of progression to cancer
- With atypia: 30-40% chance of progression to cancer

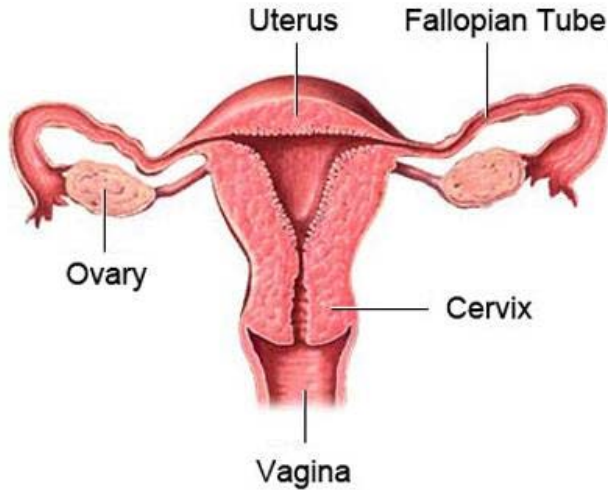
# Hyperplasia Without Atypia

- Treat with levonorgestrel IUD or continuous progestins
- Medroxyprogesterone 10mg daily or norethindrone 5mg tid
- Repeat endometrial biopsy in 6 months

Liegl S. Levonorgestrel-Releasing Intrauterine System vs. Oral Progestins for Treatment of Endometrial Hyperplasia. Am Fam Physician. 2016; 93(11):948-949.

# Hyperplasia With Atypia

Surgical treatment with hysterectomy



# Endometrial Cancer and Cardiac Risk

- Endometrial cancer is the type of cancer most associated with obesity
- Most women with endometrial cancer will die from cardiovascular disease



Sources: Schmandt RE, Iglesias DA, Co NN, and Lu KH. Understanding obesity and endometrial cancer risk: opportunities for prevention. *American Journal of Obstetrics and Gynecology* 2011; 205(6): 518-525.  
Ward KK, Shah NR, Saenz CC, McHale MT, Alvarez EA, Plaxe SC. Cardiovascular disease is the leading cause of death among endometrial cancer patients. *Gynecologic Oncology* 2012; 126(2): 176-179.

# Resources for Patients

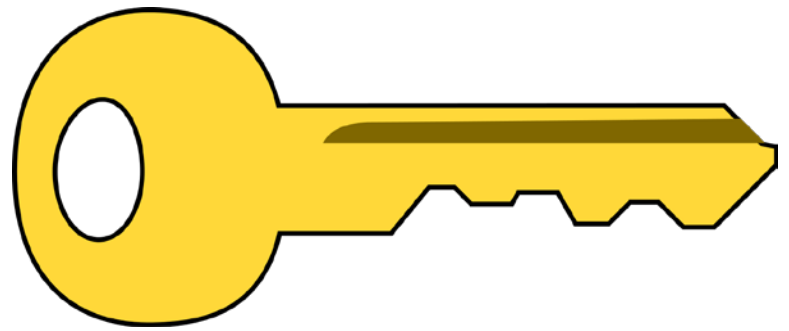
[www.familydoctor.org](http://www.familydoctor.org) -patient handouts on abnormal uterine bleeding, endometrial hyperplasia, and endometrial cancer in English and Spanish

<https://helloclue.com/> - App to track menses (14 languages)

<https://womenhelp.org/en/page/1089/announcing-euki-a-new-sexual-reproductive-health-app> - Reproductive/sexual health app with increased privacy settings

<https://www.cdc.gov/ncbddd/blooddisorders/women/menorrhagia.html> - CDC handout on heavy menstrual bleeding

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