

U.S. Medical Eligibility Criteria for Contraceptive Use, 2010

Division of Reproductive Health
Centers for Disease Control and Prevention

August 1, 2013

Learning Objectives

Participants will be able to:

- ❑ Describe the US Medical Eligibility Criteria for Contraceptive Use, 2010 (US MEC) and updates**
- ❑ Identify the intended use and target audience for the guidance**
- ❑ Define the 4 classifications of recommendations in the US MEC**
- ❑ Apply the guidance in specific situations, based on clinical scenarios**



MMWRTM

Morbidity and Mortality Weekly Report

www.cdc.gov/mmwr

Recommendations and Reports

June 18, 2010 / Vol. 59 / No. RR-4

U.S. Medical Eligibility Criteria for Contraceptive Use, 2010

**Adapted from the World Health Organization
Medical Eligibility Criteria for Contraceptive Use, 4th edition**

US Medical Eligibility Criteria for Contraceptive Use, 2010

- ❑ Companion document to US Selected Practice Recommendations for Contraceptive Use, 2013 (US SPR)**
- ❑ Adapted from World Health Organization (WHO) MEC**
- ❑ Target audience: health-care providers**
- ❑ Purpose: to assist health care providers when they counsel patients about contraceptive use and to serve as a source of clinical guidance**
- ❑ Content: over 1800 recommendations for over 60 conditions**

Why is evidence-based guidance for contraceptive use needed?

- ❑ To base family planning practices on the best available evidence
- ❑ To address misconceptions regarding who can safely use contraception
- ❑ To remove unnecessary medical barriers
- ❑ To improve access and quality of care in family planning

Contraceptive Methods in US MEC

- ❑ Combined hormonal contraceptives
- ❑ Progestin-only contraceptives
- ❑ Emergency contraceptive pills
- ❑ Intrauterine devices
- ❑ Barrier contraceptive methods
- ❑ Fertility Awareness-Based Methods
- ❑ Lactational Amenorrhea Method
- ❑ Coitus Interruptus
- ❑ Female and Male Sterilization



US MEC Recommendations

- ❑ **Recommendations for use of contraceptive methods, based on specific conditions**
- ❑ **Conditions defined as:**
 - Individual's characteristics
 - Known preexisting medical/pathologic condition
- ❑ **Refer to methods being used for contraception, not treatment of a medical condition**

US Medical Eligibility Criteria: Categories

1	No restriction for the use of the contraceptive method for a woman with that condition
2	Advantages of using the method generally outweigh the theoretical or proven risks
3	Theoretical or proven risks of the method usually outweigh the advantages – not usually recommended unless more appropriate methods are not available or acceptable
4	Unacceptable health risk if the contraceptive method is used by a woman with that condition

Example: Smoking and Contraceptive Use



Condition	COC/P/R	POP	DMPA	Implants	Cu-IUD	LNG-IUD
Smoking						
a. Age <35	2	1	1	1	1	1
b. Age ≥35						
i. <15 cigarettes/day	3	1	1	1	1	1
ii. ≥15 cigarettes/day	4	1	1	1	1	1

Initiation and Continuation

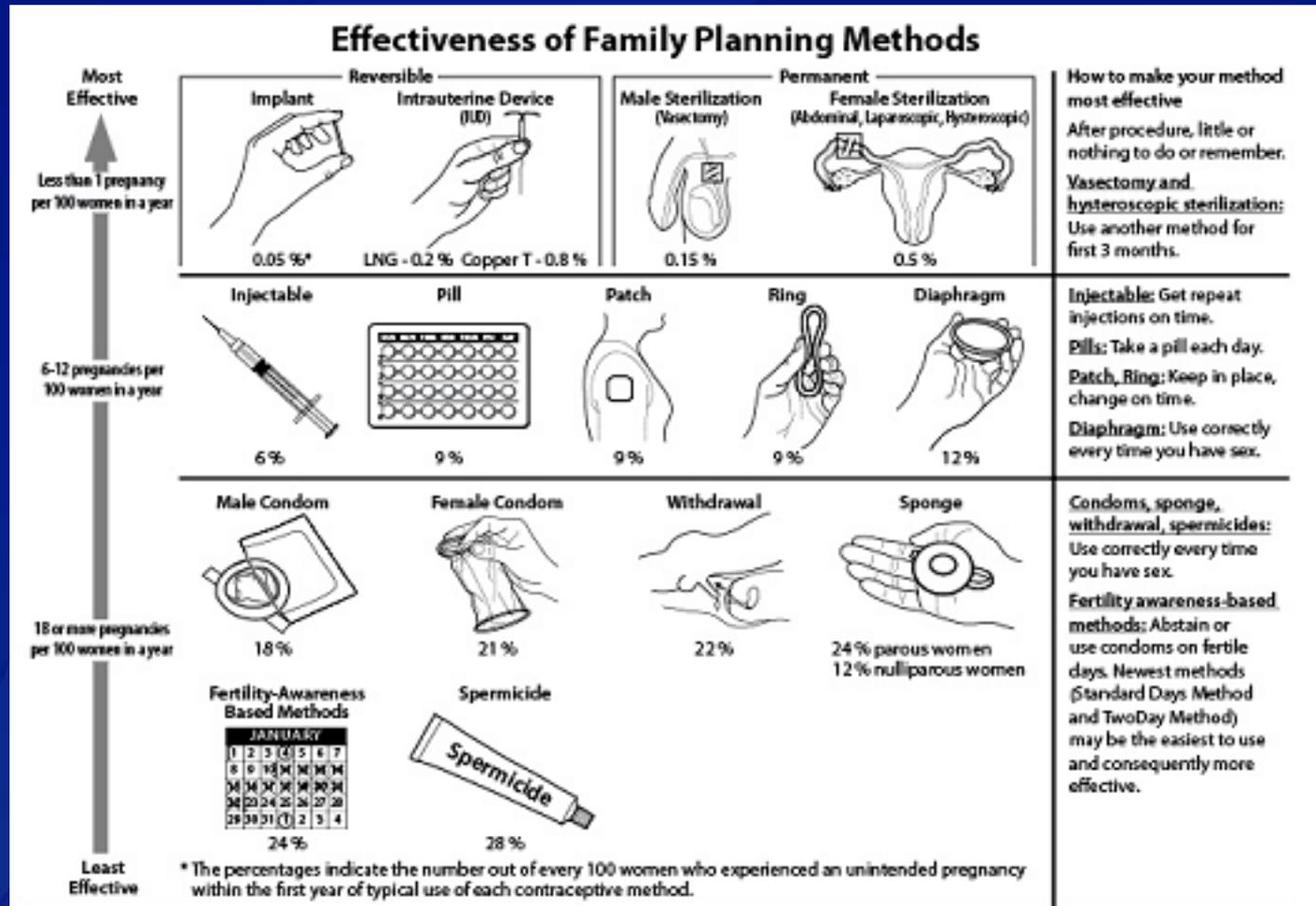
- **Separate columns if recommendations differ for:**
 - Initiation criteria (preexisting conditions)
 - Continuation criteria (condition develops or worsens)

	Combined Hormonal Contraceptives	
Headache	Initiation	Continuation
Non-migrainous (mild or severe)	1	2
Migraine		
Without aura		
Age < 35 years	2	3
Age ≥ 35 years	3	4
With aura, at any age	4	4

Contraceptive Methods in US MEC

- ❑ Combined hormonal contraceptives (CHCs)
- ❑ Progestin-only contraceptives
- ❑ Emergency contraceptive pills
- ❑ Intrauterine contraception
- ❑ Barrier contraceptive methods
- ❑ **Fertility Awareness-Based Methods (FAB)**
- ❑ **Lactational Amenorrhea Method**
- ❑ **Coitus Interruptus**
- ❑ **Female and Male Sterilization**

Contraceptive Effectiveness Chart



CS 242797



U.S. Department of Health and Human Services
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CONDOMS SHOULD ALWAYS BE USED TO REDUCE THE RISK OF SEXUALLY TRANSMITTED INFECTIONS.

Other Methods of Contraception

Lactational Amenorrhea Method: LAM is a highly effective, temporary method of contraception.

Emergency Contraception: Emergency contraceptive pills or a copper IUD after unprotected intercourse substantially reduces risk of pregnancy.

Adapted from World Health Organization (WHO) Department of Reproductive Health and Research, Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP). Knowledge for health project, Family planning: a global handbook for providers (2011 update). Baltimore, MD: Geneva, Switzerland: CCP and WHO; 2011; and Trussell J. Contraceptive failure in the United States. *Contraception* 2011;83:397-404.

Conditions Associated with Increased Risk for Adverse Health Events as a Result of Unintended Pregnancy

Breast cancer	Malignant liver tumors (hepatoma) and hepatocellular carcinoma of the liver
Complicated valvular heart disease	Peripartum cardiomyopathy
Diabetes: insulin dependent; with nephropathy/retinopathy/neuropathy or other vascular disease; or of >20 years' duration	Schistosomiasis with fibrosis of the liver
Endometrial or ovarian cancer	Severe (decompensated) cirrhosis
Epilepsy	Sickle cell disease
Hypertension (systolic > 160 mm Hg or diastolic > 100 mm Hg)	Solid organ transplantation within the past 2 years
History of bariatric surgery within past 2 years	Stroke
HIV/AIDS	Systemic lupus erythematosus
Ischemic heart disease	Thrombogenic mutations
Malignant gestational trophoblastic disease	Tuberculosis

Conditions Associated with Increased Risk for Adverse Health Events as a Result of Unintended Pregnancy

Breast cancer	Malignant liver tumors (hepatoma) and hepatocellular carcinoma of the liver
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Complicated valvular heart disease	Peripartum cardiomyopathy
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Should consider long-acting, highly-effective contraception for these patients

Ischemic heart disease	Thrombogenic mutations
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Malignant gestational trophoblastic disease	Tuberculosis
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Keeping Guidance Up to Date

- ❑ **CIRE system: Continuous Identification of Research Evidence**
- ❑ **UPDATE: Revised Recommendations for the Use of Contraceptive Methods During the Postpartum Period¹**
- ❑ **UPDATE: Revised Recommendations for the Use of Hormonal Contraception Among Women at High Risk for HIV Infection or Infected with HIV²**

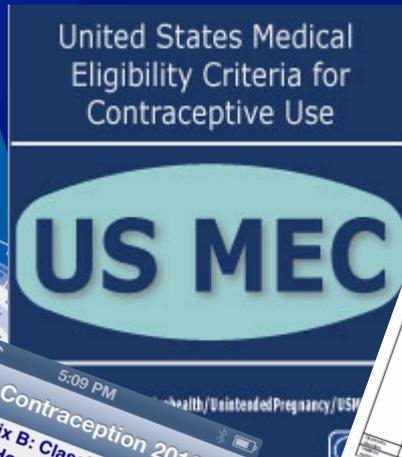
1. CDC, *MMWR* 2011; 60:878-883

2. CDC, *MMWR* 2012;61:449-452

Dissemination, Implementation and Evaluation

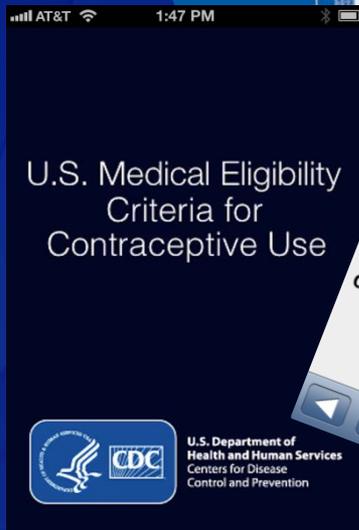
- ❑ **Adopted by Title X Family Planning Program**
 - **All Title X clinics are expected to use**
 - **Incorporated into revised Title X Clinical Guidelines**
- ❑ **Endorsed by ACOG**
 - **Committee Opinion, September 2011**
- ❑ **Incorporated into national standards and protocols**
- ❑ **Reprinted in 20th Edition of Contraceptive Technology and Managing Contraception**
- ❑ **National Guidelines Clearinghouse (guidelines.gov)**
- ❑ **Baseline and follow-up evaluation**

How to use the US MEC



Summary Chart of U.S. Medical Eligibility Criteria for Contraceptive Use, 2010

The chart is a large grid with columns for contraceptive methods (e.g., Oral, Patch, Ring, IUD, Implant, Injection, Barrier) and rows for medical conditions (e.g., Hypertension, Diabetes, Heart Disease, etc.). Each cell in the grid is color-coded: green for '1' (no restriction), yellow for '2' (use with caution), red for '3' (avoid), and black for '4' (contraindicated).



CDC Contraception 2010
 Appendix B: Classifications for Combined Hormonal Contraceptives

Condition: HYPERTENSION (For all categories of hypertension, classifications are based on the assumption that no other risk factors exist for cardiovascular disease. When multiple risk factors do exist, risk for cardiovascular disease may increase substantially. A single reading of blood pressure level is not sufficient to classify a woman as hypertensive.) - [Classification](#)

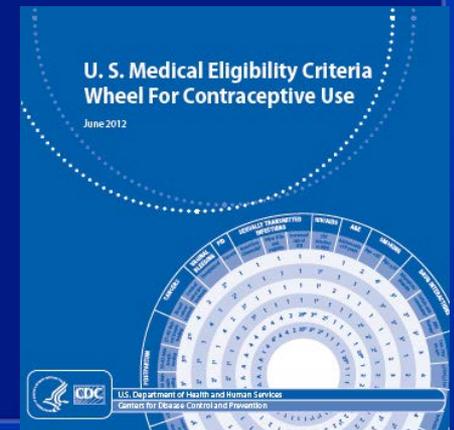
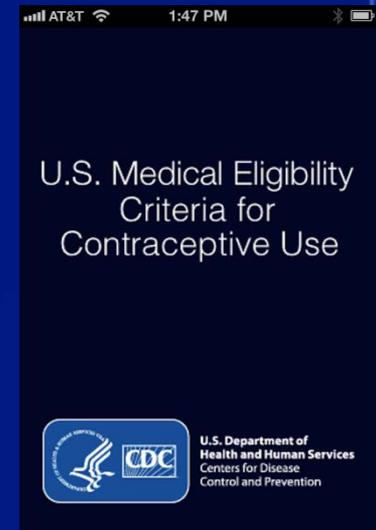
Category:

- a. Adequately controlled hypertension - **3** (risks usually outweigh advantages)



Provider Tools and Learning Aids

- ❑ Summary tables in English, Spanish
- ❑ US MEC Wheel
- ❑ iPhone and iPad app
- ❑ Continuing Education Activities
- ❑ Speaker-ready slides
- ❑ Contraceptive Effectiveness Chart



Locating CDC contraception guidance

cdc contraception - Google Search - Windows Internet Explorer

http://www.google.com/#hl=en&scient=psy-ab&q=CDC+contraception&og=CDC+contraception&gs_l=hp.3.04.1513.4103.0.4352.17.9.0.0.0.468.22

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cdc contraception - Google Search

+You Search Images Maps Play YouTube News Gmail Documents Calendar More

Search CDC contraception Sign in

Search About 1,050,000 results (0.42 seconds) SafeSearch strict

Web

- [CDC - Contraception - Reproductive Health](http://www.cdc.gov/reproductivehealth/.../contraception.htm)
www.cdc.gov/reproductivehealth/.../contraception.htm
In the United States, almost half of all pregnancies are unintended.¹ Yet, several safe and highly effective methods of **contraception (birth control)** are available ...
- [Reversible Methods of Birth ... - Permanent Methods of Birth Control](#)
- [CDC - United States Medical Eligibility Criteria \(USMEC\) for ...](#)
www.cdc.gov/reproductivehealth/unintendedpregnancy/usmec.htm
Jun 21, 2012 – In 1996, the World Health Organization (WHO) published the first edition of the Medical Eligibility Criteria for **Contraceptive** Use, which gave ...
- [Update to CDC's U.S. Medical Eligibility Criteria for Contraceptive ...](#)
www.cdc.gov/mmwr/preview/mmwrhtml/mm6124a4.htm
Jun 22, 2012 – In 2010, CDC published U.S. Medical Eligibility Criteria for **Contraceptive** Use, 2010 (US MEC), providing evidence-based guidance for the ...
- [FASTSTATS - Contraceptive Use](#)
www.cdc.gov/nchs/fastats/contraceptive.htm
Jul 18, 2012 – Leading **contraceptive** method among women aged 15-29: Pill ...
Source: Use of **Contraception** in the United States: 1982-2008 (data for ...
- [CDC: Nearly 40 percent of US Births Are Unintended - ABC News](#)
abcnews.go.com › Health
Jul 24, 2012 – Previous studies have found that about half of unintended births come from ineffective use of **contraception** -- not wearing a condom or ...
- [CDC: No link seen between **contraceptives** and higher HIV risk | Fox ...](#)

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CDC Contraceptive Guidance for Health Care Providers

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CDC Contraceptive Guidance for Health Care Providers

Unintended pregnancy rates remain high in the United States. About 50% of all pregnancies are unintended, with higher proportions among adolescent and young women, women who are racial/ethnic minorities, and women with lower levels of education and income.¹ Unintended pregnancies increase the risk for poor maternal and infant outcomes² and in 2002, resulted in \$5 billion in direct medical costs in the United States.³

About half of unintended pregnancies are among women who were not using [contraception](#) (birth control) at the time they became pregnant. The other half are among women who became pregnant despite reported use of contraception.⁴ Strategies to prevent [unintended pregnancy](#) include removing unnecessary medical barriers to contraceptive use, and helping women and men at risk for unintended pregnancy choose appropriate contraceptive methods and use them correctly and consistently to prevent pregnancy.

In 2010, CDC adapted global guidance from the World Health Organization (WHO) to help health care providers counsel women, men, and couples about contraceptive method choice. The [U.S. Medical Eligibility Criteria for Contraceptive Use, 2010 \(US MEC\)](#), focuses on who can safely use specific methods of contraception, and provides recommendations for the safety of contraceptive methods for women with various medical conditions (such as hypertension and diabetes) and characteristics (such as age, parity, and smoking status).

The [U.S. Selected Practice Recommendations for Contraceptive Use, 2013 \(US SPR\)](#) provides guidance on how contraceptive methods can be used and how to remove unnecessary barriers for patients in accessing and successfully using contraceptive methods. The *US SPR* includes recommendations on when women can start contraceptive methods, what exams and tests are needed before starting a method, what follow-up is appropriate, and how to address side effects and other problems with contraceptive method use.

How to Use the *US MEC* and *US SPR*

Health care providers can use these documents when counseling patients about contraceptive choice, how to use contraceptive methods, and how to manage problems with contraceptive use. CDC has developed [several provider tools](#), including summary charts, a *US MEC* wheel, and mobile tools for easy access to this guidance.

CDC is committed to keeping this clinical guidance up to date and based on the best available scientific evidence. CDC will continue to work with WHO to identify and assess all new relevant evidence and determine whether changes in the recommendations are warranted. Updates to the guidance will be posted on this Web site or can be received by signing up for E-mail Updates.

[Email page link](#)
[Print page](#)

[Sign up to receive US MEC and US SPR E-mail Updates.](#)

United States Medical Eligibility Criteria for Contraceptive Use

www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm
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United States Selected Practice Recommendations for Contraceptive Use

www.cdc.gov/reproductivehealth/UnintendedPregnancy/USPR.htm
[Get this badge for your website.](#)

http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/Contraception_Guidance.htm



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United States Medical Eligibility Criteria (US MEC) for Contraceptive Use, 2010

The [United States Medical Eligibility Criteria for Contraceptive Use, 2010 \(US MEC\)](#) is intended to assist health care providers when counseling women, men, and couples about contraceptive method choice. The US MEC provides guidance on the safety of contraceptive method use for women with specific characteristics and medical conditions. This document is not intended to be a substitute for professional medical advice; persons should seek advice from their health care providers when determining family planning options.

CDC went through a formal adaptation process to create the US MEC. In 1996, the World Health Organization (WHO) published the first edition of the *Medical Eligibility Criteria for Contraceptive Use*. WHO has always intended for its global guidance to be used by policy makers, family planning program managers, and the scientific community as a reference when developing family planning guidance at the country or program level.

The US MEC has a companion document, U.S. Selected Practice Recommendations for Contraceptive Use, 2013 (US CPR), which addresses how to use contraceptive

On this Page

- [US MEC Resources](#)
- [Video Commentary](#)
- [iPhone, iPad App](#)
- [Other CDC Resources](#)
- [WHO Resources](#)



CLINICAL SCENARIOS

Scenario 1

- ❑ **28 year old G1P0 female is pregnant and being counseled for postpartum family planning. She is not planning on breastfeeding. What options are available to her postpartum?**
 - A. IUD (copper or levonorgestrel)**
 - B. Progestin-only methods (pill, injectable, implant)**
 - C. Combined hormonal methods (pill, patch, ring)**



Why is postpartum contraception important?

- ❑ **Avoid unintended pregnancy and short birth interval**

- ❑ **May be ideal time to provide contraception**
 - **Motivation**
 - **Access to health care services, especially during delivery hospitalization**

- ❑ **Prevent repeat adolescent pregnancies**
 - **20% of adolescent births are repeat births**

Systematic Review: Postpartum VTE

- ❑ 3 studies directly compared postpartum risk of deep vein thrombosis to non-pregnant women
 - Risk is 22 to 84 times as high in postpartum women than non-pregnant women
- ❑ Rate ratio comparing rates of venous thromboembolism (VTE) among postpartum and non-pregnant women calculated for 3 studies
 - Rate Ratio: 2.5 to 21.5 in postpartum women
- ❑ 3 studies provided weekly data
 - Indicated that risk decreases markedly after first 3 to 4 weeks postpartum
 - Most studies convey no significant increase after 6 weeks

Hormonal methods for non-breastfeeding postpartum women

Postpartum (non-breastfeeding)	CHCs	Progestin-only methods
<21 days	4	1
21-42 days		
With other risk factors for VTE	3*	1
Without other risk factors for VTE	2	1
>42 days	1	1

**Clarification: Other risk factors might increase classification to “4”*

Postpartum IUD insertion

Postpartum (breastfeeding or non-breastfeeding, including post cesarean section)	LNG-IUD	Cu-IUD
<10 min after delivery of placenta	2	1
10 min to <4 weeks	2	2
≥4 weeks	1	1
Puerperal sepsis	4	4

Systematic Review of Postpartum IUD

- ❑ Identified 15 articles of poor to fair quality
- ❑ Outcomes from copper IUD insertions
 - Postpartum time period compared to other time intervals
 - Routes of postpartum insertion (vaginal or via hysterotomy)
 - No studies of levonorgestrel IUDs were identified
- ❑ Immediate IUD insertion is safe
- ❑ Lower Expulsion Rates
 - Immediate insertion compared to delayed postpartum insertion
 - Interval insertion compared to immediate postpartum
 - Postplacental placement during cesarean delivery compared to postplacental vaginal insertion

Scenario 1

- ❑ 28 year old G1P0 female is pregnant and being counseled for postpartum family planning. She is not planning on breastfeeding. What options are available to her immediately postpartum?
 - A. IUD (copper or levonorgestrel)
 - B. Progestin-only methods (pill, injectable, implant)
 - C. Combined hormonal methods (pill, patch, ring)



(**Wait** until 21-42 days postpartum, depending on VTE risk factors)

Scenario 2

- **38 year old G2P2 female with diabetes has been using condoms for contraception and is looking for a more effective method. What methods are safe for her to use?**
 - A. IUD (copper or levonorgestrel)**
 - B. Progestin-only methods (pill, injectable, implant)**
 - C. Combined hormonal methods (pill, patch, ring)**



Evidence

- ❑ Use of COCs among women with history of gestational diabetes does not increase risk of developing noninsulin-dependent diabetes
- ❑ Use of COCs among women with insulin- or noninsulin-dependent diabetes:
 - Limited effect on daily insulin requirements
 - No effect on long-term diabetes control
 - No effect on progression to retinopathy

Diabetes

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD	Cu-IUD
History of gestational disease	1	1	1	1	1	1
Nonvascular disease						
Noninsulin-dependent	2	2	2	2	2	1
Insulin-dependent§	2	2	2	2	2	1
Nephropathy/retinopathy/neuropathy§	3/4†	2	3	2	2	1
Other vascular disease or diabetes of >20 yrs' duration§	3/4†	2	3	2	2	1

§ Condition that exposes a woman to increased risk as a result of unintended pregnancy

† This category should be assessed according to the severity of the condition

Scenario 2

- **38 year old G2P2 female with diabetes has been using condoms for contraception and is looking for a more effective method. You now know that she is non-insulin dependent and has no vascular disease. What methods are safe for her to use?**
 - A. IUD (copper or levonorgestrel)**
 - B. Progestin-only methods (pill, injectable, implant)**
 - C. Combined hormonal methods (pill, patch, ring)**
 - ALL OF THE ABOVE**



Scenario 3

- ❑ A 30 year old female has a history of bariatric surgery 1 year ago. She was using COCs before her surgery and desires to restart them. What do you need to know before deciding whether to recommend this method?
 - A. How much weight has she lost?
 - B. What type of surgery did she have?
 - C. What pill formulation did she use previously?



Bariatric surgery

- **Restrictive procedures:**
 - **Decrease storage capacity of stomach**
 - **Ex: vertical banded gastroplasty, laparoscopic adjustable gastric band, laparoscopic sleeve gastrectomy**
- **Malabsorptive procedures:**
 - **Decrease absorption of nutrients and calories by shortening functional length of small intestine**
 - **Ex: Roux-en-Y gastric bypass (most common in US), biliopancreatic diversion**

Bariatric surgery

❑ Risks

- Postop complications- VTE/PE
 - Long term complications- protein calorie malnutrition, metabolic bone disease, hepatic dysfunction, vitamin and mineral deficiencies
- ## ❑ Consensus to avoid pregnancy for 12-24 months
- Majority of weight loss and postop comps occur
- ## ❑ Weight loss may increase fertility
- ## ❑ Theoretical concerns for contraception
- ❑ Effectiveness of oral methods from malabsorption, postop diarrhea or vomiting
 - ❑ VTE risk from major surgery and obesity

Evidence

□ 5 studies

- **Effectiveness:** 2 studies showing conflicting evidence re pregnancies with OCs, no pregnancies in DMPA or IUD users
- **Safety:** 1 case report, woman using OCs experienced stroke
- **PK:** 2 studies showing lower plasma levels of hormones in women who had surgery

History of bariatric surgery

Condition	COC/P/R	POP	DMPA	Implants	Cu-IUD	LNG-IUD
Restrictive procedures	1	1	1	1	1	1
Malabsorptive procedures	COCs: 3 P/R: 1	3	1	1	1	1

Scenario 3

- A 30 year old female has a history of bariatric surgery 1 year ago. She was using COCs before her surgery and desires to restart them. What do you need to know before deciding whether to recommend this method?

Answer:

- B. What type of surgery did she have? If malabsorptive procedure, would not recommend OCs, unless other methods are not available or acceptable (Category 3).



Take Home Messages

- ❑ **US MEC provides evidence-based recommendations for safe use of contraceptive methods by women and men with various conditions**
- ❑ **Most women can safely use most contraceptive methods**
- ❑ **Certain conditions are associated with increased risk for adverse health events as a result of unintended pregnancy**
- ❑ **Women at risk of unintended pregnancy need access to highly effective contraceptive methods**
- ❑ **Women, men and couples should be informed of full range of methods to decide what will be best for them**

Resources

- ❑ **CDC evidence-based family planning guidance documents:**
<http://www.cdc.gov/reproductivehealth/unintendedpregnancy/USMEC.htm>
 - Sign up to receive alerts!
- ❑ **WHO evidence-based family planning guidance documents:**
http://www.who.int/reproductivehealth/publications/family_planning/en/index.html