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

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

Continuing Education Examination available at http://www.cdc.gov/mmwr/cme/conted.html

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

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Prepared by
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Summary

CDC created U.S. Medical Eligibility Criteria for Contraceptive Use, 2010, from guidance developed by the World Health Organization (WHO) and finalized the recommendations after consultation with a group of health professionals who met in Atlanta, Georgia, during February 2009. This guidance comprises recommendations for the use of specific contraceptive methods by women and men who have certain characteristics or medical conditions. The majority of the U.S. guidance does not differ from the WHO guidance and covers >60 characteristics or medical conditions. However, some WHO recommendations were modified for use in the United States, including recommendations about contraceptive use for women with venous thromboembolism, valvular heart disease, ovarian cancer, and uterine fibroids and for postpartum and breastfeeding women. Recommendations were added to the U.S. guidance for women with rheumatoid arthritis, history of bariatric surgery, peripartum cardiomyopathy, endometrial hyperplasia, inflammatory bowel disease, and solid organ transplantation. The recommendations in this document are intended to assist health-care providers when they counsel women, men, and couples about contraceptive method choice. Although these recommendations are meant to serve as a source of clinical guidance, health-care providers should always consider the individual clinical circumstances of each person seeking family planning services.

Introduction

In 1996, the World Health Organization (WHO) published the first edition of the *Medical Eligibility Criteria for Contraceptive Use* (MEC), which gave evidence-based guidance on the safety of contraceptive method use for women and men worldwide who had specific characteristics and medical conditions. Since that time, WHO has regularly updated its guidance on the basis of new evidence, and the WHO MEC is now in its fourth edition (*1*).

CDC, through close collaboration with WHO, has contributed substantially during the last 15 years to creation of WHO's global family planning guidance, which includes four documents: the medical eligibility criteria for contraceptive use, the selected practice recommendations for contraceptive use, a decision-making tool for clients and providers, and a global family planning handbook. This WHO guidance has been based on the best available scientific evidence, and CDC has served as the lead for establishing that evidence base and presenting the evidence to WHO for use during its expert working group meetings to create and update the guidance.

WHO has always intended for its global guidance to be used by local or regional policy makers, managers of family planning programs, and the scientific community as a reference when they develop family planning guidance at the country or program level. The United Kingdom is one example of a country that has adapted the WHO MEC for its own use (*2*).

CDC undertook a formal process to adapt the WHO MEC at this time because the fourth edition of the WHO guidance is unlikely to undergo major revisions in the near future. Although the WHO guidance is already available in the United States through inclusion in textbooks, use by professional organizations, and incorporation into training programs, the adaptation of the guidance ensures its appropriateness for use in the United States and allows for further dissemination and implementation among U.S. health-care providers. Most of the U.S. guidance does not differ from the WHO guidance and covers approximately 60 characteristics or medical conditions. However, several changes have been made, including adaptations of selected WHO recommendations, addition of recommendations for new medical conditions, and removal of recommendations for contraceptive methods not currently available in the United States (Appendix A).

This document contains recommendations for health-care providers for the safe use of contraceptive methods by women and men with various characteristics and medical conditions. It is intended to assist health-care providers when they counsel women, men, and couples about contraceptive method choice. These recommendations are meant to be a source of clinical guidance; health-care providers should always consider the individual clinical circumstances of each person seeking family planning services.

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Methods

The process for adapting the WHO MEC for the United States comprised four major steps: 1) determination of the scope of and process for the adaptation, including a small meeting; 2) preparation and peer review of systematic reviews of the evidence to be used for the adaptation; 3) organization of a larger meeting to examine the evidence and provide input on the recommendations; and 4) finalization of the recommendations by CDC.

In June 2008, CDC held a 2-day meeting of eight key partners and U.S. family planning experts to determine the scope of and process for a U.S. adaptation of the WHO MEC. Participants were family planning providers, who also had expertise in conducting research on contraceptive safety and translating research evidence into guidance. WHO guidance is used widely around the world, including in the United States, and contains approximately 1,800 separate recommendations. In most cases, the evidence base would be the same for the U.S. and the WHO recommendation, and—because of the extensive collaboration between WHO and CDC in creating the international guidance—the process for determining the recommendations also would be the same. Therefore, CDC determined that the global guidance also should be the U.S. guidance, except when a compelling reason existed for adaptation, and that CDC would accept the majority of WHO guidance for use in the United States.

During the June 2008 meeting, CDC identified specific WHO recommendations for which a compelling reason existed to consider modification for the United States because of the availability of new scientific evidence or the context in which family planning services are provided in the United States. CDC also identified areas in which WHO guidance was inconsistent with current U.S. practice by contacting numerous professional and service organizations and individual providers. In addition, CDC assessed the need for adding recommendations for medical conditions not currently included in the WHO MEC. Through this process, a list was developed of existing WHO recommendations to consider adapting and new medical conditions to consider adding to the guidance.

A systematic review of the scientific evidence was conducted for each of the WHO recommendations considered for adaptation and for each of the medical conditions considered for addition to the guidance. The purpose of these systematic reviews was to identify direct evidence about the safety of contraceptive method use by women (or men) with selected conditions (e.g., risk for disease progression or other adverse health effects in women with rheumatoid arthritis who use combined oral contraceptives). Information about indirect evidence (e.g., evidence from healthy women or animal studies) or theoretical considerations was obtained when direct evidence was not available. CDC conducted systematic reviews following standard guidelines (*3*,*4*), included thorough searches of PubMed and other databases of the scientific literature, and used the U.S. Preventive Services Task Force system to grade the strength and quality of the evidence (*5*). Each systematic review was peer-reviewed by two or three experts before being used in the adaptation process. These systematic reviews have been submitted for publication in peer-reviewed journals.

For most recommendations in this document, a limited number of studies address the use of a specific contraceptive method by women with a specific condition. Therefore, within the WHO guidance, as well as with this U.S. adaptation of the guidance, most of the decisions about medical eligibility criteria were often necessarily based on 1) extrapolations from studies that primarily included healthy women, 2) theoretical considerations about risks and benefits, and 3) expert opinion. Evidence was particularly limited for newer contraceptive methods. The total body of evidence for each recommendation included evidence based on direct studies or observations of the contraceptive method used by women (or men) with the condition and may have included 1) evidence derived from effects of the contraceptive method used by women (or men) without the condition and 2) indirect evidence or theoretical concerns based on studies of suitable animal models, human laboratory studies, or analogous clinical situations.

In February 2009, CDC held a meeting of 31 experts who were invited to provide their individual perspective on the scientific evidence presented and the discussions on potential recommendations that followed. This group included obstetricians/gynecologists, pediatricians, family physicians, nurse-midwives, nurse practitioners, epidemiologists, and others with expertise in contraceptive safety and provision. For each topic discussed, the evidence from the systematic review was presented; for most of the topics, an expert in the specific medical condition (e.g., rheumatoid arthritis) also gave a brief presentation on the condition and specific issues about contraceptive safety. CDC gathered input from the experts during the meeting and finalized the recommendations in this document. CDC plans to develop a research agenda to address topics identified during the meeting that need further investigation.

How to Use This Document

These recommendations are intended to help health-care providers determine the safe use of contraceptive methods among women and men with various characteristics and medical conditions. Providers also can use the synthesis of information in these recommendations when consulting with women, men,

and couples about their selection of contraceptive methods. The tables in this document include recommendations for the use of contraceptive methods by women and men with particular characteristics or medical conditions. Each condition was defined as representing either an individual's characteristics (e.g., age, history of pregnancy) or a known preexisting medical/pathologic condition (e.g., diabetes and hypertension). The recommendations refer to contraceptive methods being used for contraceptive purposes; the recommendations do not consider the use of contraceptive methods for treatment of medical conditions because the eligibility criteria in these cases may differ. The conditions affecting eligibility for the use of each contraceptive method were classified under one of four categories (Box 1).

BOX 1. Categories of medical eligibility criteria for contraceptive use

1 = A condition for which there is no restriction for the use of the contraceptive method.
2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.
4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

Using the Categories in Practice

Health-care providers can use these categories when assessing the safety of contraceptive method use for women and men with specific medical conditions or characteristics. Category 1 comprises conditions for which no restrictions exist for use of the contraceptive method. Classification of a method/condition as Category 2 indicates the method generally can be used, but careful follow-up may be required. For a method/condition classified as Category 3, use of that method usually is not recommended unless other more appropriate methods are not available or acceptable. The severity of the condition and the availability, practicality, and acceptability of alternative methods should be taken into account, and careful follow-up will be required. Hence, provision of a method to a woman with a condition classified as Category 3 requires careful clinical judgement and access to clinical services. Category 4 comprises conditions that represent an unacceptable health risk if the method is used. For example, a smoker aged <35 years generally can use combined oral contraceptives (COCs) (Category 2). However, for a woman aged ≥35 years who smokes <15 cigarettes per day, the use of COCs usually is not recommended unless other methods are not available or acceptable to her (Category 3). A woman aged ≥35 years who smokes ≥15 cigarettes per day should not use COCs because of unacceptable health risks, primarily the risk for myocardial infarction and stroke (Category 4). The programmatic implications of these categories may depend on the circumstances of particular professional or service organizations (e.g., in some settings, a Category 3 may mean that special consultation is warranted).

The recommendations address medical eligibility criteria for the initiation and continued use of all methods evaluated. The issue of continuation criteria is clinically relevant whenever a woman develops the condition while she is using the method. When the categories differ for initiation and continuation, these differences are noted in the columns *Initiation* and *Continuation*. Where *Initiation* and *Continuation* are not denoted, the category is the same for initiation and continuation of use.

On the basis of this classification system, the eligibility criteria for initiating and continuing use of a specific contraceptive method are presented in tables (Appendices A–M). In these tables, the first column indicates the condition. Several conditions were divided into subconditions to differentiate between varying types or severity of the condition. The second column classifies the condition for initiation and/or continuation into Category 1, 2, 3, or 4. For some conditions, the numeric classification does not adequately capture the recommendation; in this case, the third column clarifies the numeric category. These clarifications were determined during the discussions of the scientific evidence and the numeric classification and are considered a necessary element of the recommendation. The third column also summarizes the evidence for the recommendation, where evidence exists. The recommendations for which no evidence is cited are based on expert opinion from either the WHO or U.S. expert working group meetings and may be based on evidence from sources other than systematic reviews and presented at those meetings. For selected recommendations, additional comments appear in the third column and generally come from the WHO or the U.S. expert working group participants.

Recommendations for Use of Contraceptive Methods

The classifications for whether women with certain medical conditions or characteristics can use specific contraceptive methods are provided for combined hormonal contraceptive methods, including low-dose (containing ≤35 μg ethi-

nyl estradiol) combined oral contraceptive pills, combined hormonal patch, and combined vaginal ring (Appendix B); progestin-only contraceptive methods, including progestin-only pills, depot medroxyprogesterone acetate injections, and etonogestrel implants (Appendix C); emergency contraceptive pills (Appendix D); intrauterine contraception, including the copper intrauterine device (IUD) and the levonorgestrel IUD (Appendix E); use of copper IUDs for emergency contraception (Appendix F); barrier contraceptive methods, including male and female condoms, spermicides, diaphragm with spermicide, and cervical cap (Appendix G); fertility awareness-based methods (Appendix H); lactational amenorrhea method (Appendix I); coitus interruptus (Appendix J); and female and male sterilization (Appendix K). Tables at the end of the document summarize the classifications for the hormonal and intrauterine methods (Appendix L) and the evidence about potential drug interactions between hormonal contraceptives and antiretroviral therapies (Appendix M).

Contraceptive Method Choice

Many elements need to be considered by women, men, or couples at any given point in their lifetimes when choosing the most appropriate contraceptive method. These elements include safety, effectiveness, availability (including accessibility and affordability), and acceptability. The guidance in this document focuses primarily on the safety of a given contraceptive method for a person with a particular characteristic or medical condition. Therefore, the classification of Category 1 means that the method can be used in that circumstance with no restrictions with regard to safety but does not necessarily imply that the method is the best choice for that person; other factors, such as effectiveness, availability, and acceptability, may play a key role in determining the most appropriate choice. Voluntary informed choice of contraceptive methods is an essential guiding principle, and contraceptive counseling, where applicable, may be an important contributor to the successful use of contraceptive methods.

In choosing a method of contraception, the risk for sexually transmitted infections (STIs), including human immunodeficiency virus (HIV), also must be considered. Although hormonal contraceptives and IUDs are highly effective at preventing pregnancy, they do not protect against STIs. Consistent and correct use of the male latex condom reduces the risk for STIs (*6*). When a male condom cannot be used properly for infection prevention, a female condom should be considered (*7*). Women who use contraceptive methods other than condoms should be counseled about the use of condoms and the risk for STIs (*7*). Additional information about prevention and treatment of STIs is available from CDC's *Sexually Transmitted Diseases Treatment Guidelines* (http://www.cdc.gov/std/treatment) (*7*).

Contraceptive Method Effectiveness

Contraceptive method effectiveness is critically important in minimizing the risk for unintended pregnancy, particularly among women for whom an unintended pregnancy would pose additional health risks. The effectiveness of contraceptive methods depends both on the inherent effectiveness of the method itself and on how consistently and correctly it is used (Table 1). Methods that depend on consistent and correct use have a wide range of effectiveness.

Unintended Pregnancy and Increased Health Risk

For women with conditions that may make unintended pregnancy an unacceptable health risk, long-acting, highly effective contraceptive methods may be the best choice (Table 1). Women with these conditions should be advised that sole use of barrier methods for contraception and behavior-based methods of contraception may not be the most appropriate choice because of their relatively higher typical-use rates of failure (Table 1). Conditions included in the U.S. MEC for which unintended pregnancy presents an unacceptable health risk are identified throughout the document (Box 2).

Keeping Guidance Up to Date

As with any evidence-based guidance document, a key challenge is keeping the recommendations up to date as new scientific evidence becomes available. CDC will continue to work with WHO to identify and assess all new relevant evidence and to determine whether changes to the recommendations are warranted (*4*). In most cases, the U.S. MEC will follow any updates in the WHO guidance, which typically occur every 3–4 years (or sooner if warranted by new data). However, CDC will review any WHO updates for their application in the United States. CDC also will identify and assess any new literature for the recommendations and medical conditions that are not included in the WHO guidance. CDC will completely review the U.S. MEC every 3–4 years as well. Updates to the guidance will appear on the CDC U.S. MEC website: http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm.

TABLE 1. Percentage of women experiencing an unintended pregnancy during the first year of typical use and the first year of perfect use of contraception and the percentage continuing use at the end of the first year — United States

Method	Women experiencing an unintended pregnancy within the first year of use		Women continuing use at 1 year[§]
	Typical use*	Perfect use[†]	
No method[¶]	85%	85%	
Spermicides[**]	29%	18%	42%
Withdrawal	27%	4%	43%
Fertility awareness–based methods	25%		51%
Standard Days method[††]		5%	
TwoDay method™[††]		4%	
Ovulation method[††]		3%	
Sponge			
Parous women	32%	20%	46%
Nulliparous women	16%	9%	57%
Diaphragm[§§]	16%	6%	57%
Condom[¶¶]			
Female (Reality®)	21%	5%	49%
Male	15%	2%	53%
Combined pill and progestin-only pill	8%	0.3%	68%
Evra patch®	8%	0.3%	68%
NuvaRing®	8%	0.3%	68%
Depo-Provera®	3%	0.3%	56%
Intrauterine device			
ParaGard® (copper T)	0.8%	0.6%	78%
Mirena® (LNG-IUS)	0.2%	0.2%	80%
Implanon®	0.05%	0.05%	84%
Female sterilization	0.5%	0.5%	100%
Male sterilization	0.15%	0.10%	100%
Emergency contraceptive pills[***]	Not applicable	Not applicable	Not applicable
Lactational amenorrhea methods[†††]	Not applicable	Not applicable	Not applicable

Adapted from Trussell J. Contraceptive efficacy. In Hatcher RA, Trussell J, Nelson AL, Cates W, Stewart FH, Kowal D. Contraceptive technology. 19th revised ed. New York, NY: Ardent Media; 2007.

* Among typical couples who initiate use of a method (not necessarily for the first time), the percentage who experience an unintended pregnancy during the first year if they do not stop use for any other reason. Estimates of the probability of pregnancy during the first year of typical use for spermicides, withdrawal, fertility awareness-based methods, the diaphragm, the male condom, the pill, and Depo-Provera are taken from the 1995 National Survey of Family Growth corrected for underreporting of abortion; see the text for the derivation of estimates for the other methods.

† Among couples who initiate use of a method (not necessarily for the first time) and who use it *perfectly* (both consistently and correctly), the percentage who experience an unintended pregnancy during the first year if they do not stop use for any other reason. See the text for the derivation of the estimate for each method.

§ Among couples attempting to avoid pregnancy, the percentage who continue to use a method for 1 year.

¶ The percentages becoming pregnant in the typical use and perfect use columns are based on data from populations where contraception is not used and from women who cease using contraception to become pregnant. Of these, approximately 89% become pregnant within 1 year. This estimate was lowered slightly (to 85%) to represent the percentage who would become pregnant within 1 year among women now relying on reversible methods of contraception if they abandoned contraception altogether.

** Foams, creams, gels, vaginal suppositories, and vaginal film.

†† The TwoDay and Ovulation methods are based on evaluation of cervical mucus. The Standard Days method avoids intercourse on cycle days 8–19.

§§ With spermicidal cream or jelly.

¶¶ Without spermicides.

*** Treatment initiated within 72 hours after unprotected intercourse reduces the risk for pregnancy by at least 75%. The treatment schedule is 1 dose within 120 hours after unprotected intercourse and a second dose 12 hours after the first dose. Both doses of Plan B can be taken at the same time. Plan B (1 dose is 1 white pill) is the only dedicated product specifically marketed for emergency contraception. The Food and Drug Administration has in addition declared the following 22 brands of oral contraceptives to be safe and effective for emergency contraception: Ogestrel or Ovral (1 dose is 2 white pills); Levlen or Nordette (1 dose is 4 light-orange pills); Cryselle, Levora, Low-Ogestrel, Lo/Ovral, or Quasence (1 dose is 4 white pills); Tri-Levlen or Triphasil (1 dose is 4 yellow pills); Jolessa, Portia, Seasonale, or Trivora (1 dose is 4 pink pills); Seasonique (1 dose is 4 light blue-green pills); Empresse (1 dose is 4 orange pills); Alesse, Lessina, or Levlite (1 dose is 5 pink pills); Aviane (1 dose is 5 orange pills); and Lutera (1 dose is 5 white pills).

††† Lactational amenorrhea method is a highly effective *temporary* method of contraception. However, to maintain effective protection against pregnancy, another method of contraception must be used as soon as menstruation resumes, the frequency or duration of breastfeeding is reduced, bottle feeds are introduced, or the baby reaches 6 months of age.

BOX 2. Conditions associated with increased risk for adverse health events as a result of unintended pregnancy

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

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Appendix A

Summary of Changes to the World Health Organization Medical Eligibility Criteria for Contraceptive Use, 4th Edition, to Create the U.S. Medical Eligibility Criteria for Contraceptive Use, 2010

The classification additions, deletions, and modifications from the World Health Organization (WHO) Medical Eligibility Criteria for Contraceptive Use, 4th Edition, are summarized below (Tables 1–3). For conditions for which classification changed for ≥1 methods or the condition description underwent a major modification, WHO conditions and recommendations appear in curly brackets.

BOX. Categories for Classifying Hormonal Contraceptives and Intrauterine Devices

1 = A condition for which there is no restriction for the use of the contraceptive method.
2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.
4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

TABLE 1. Summary of changes in classifications from WHO Medical Eligibility Criteria for Contraceptive Use, 4th edition*†

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD	Cu-IUD	Clarification
Breastfeeding							
a. <1 mo postpartum {WHO: <6 wks postpartum}	3§ {4}	2§ {3}	2§ {3}	2§ {3}			The US Department of Health and Human Services recommends that infants be exclusively breastfed during the first 4–6 months of life, preferably for a full 6 months. Ideally, breastfeeding should continue through the first year of life (*1*). {Not included in WHO MEC}
b. 1 mo to <6 mos {WHO: ≥6 wks to <6 mos postpartum}	2§ {3}						
Postpartum (in breastfeeding or nonbreastfeeding women), including post caesarean section							
a. <10 min after delivery of the placenta {WHO: <48 hrs, including insertion immediately after delivery of the placenta}					2 {1 if not breastfeeding and 3 if breastfeeding}		
b. 10 min after delivery of the placenta to <4 wks {WHO: ≥48 hrs to <4 wks}					2 {3}	2{3}	
Deep venous thrombosis (DVT)/pulmonary embolism (PE)							
a. History of DVT/PE, not on anticoagulant therapy							
ii. Lower risk for recurrent DVT/PE (no risk factors)	3 {4}						
b. Acute DVT/PE		2 {3}	2 {3}	2 {3}	2 {3}	2 {1}	
c. DVT/PE and established on anticoagulant therapy for at least 3 mos							

TABLE 1. (*Continued*) Summary of changes in classifications from WHO Medical Eligibility Criteria for Contraceptive Use, 4th edition*†

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD	Cu-IUD	Clarification
i. Higher risk for recurrent DVT/PE (≥1 risk factors) • Known thrombophilia, including antiphospholipid syndrome • Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer • History of recurrent DVT/PE						2 {1}	
ii. Lower risk for recurrent DVT/PE (no risk factors)	3§ {4}					2 {1}	Women on anticoagulant therapy are at risk for gynecologic complications of therapy such as hemorrhagic ovarian cysts and severe menorrhagia. Hormonal contraceptive methods can be of benefit in preventing or treating these complications. When a contraceptive method is used as a therapy, rather than solely to prevent pregnancy, the risk/benefit ratio may be different and should be considered on a case-by-case basis. {Not included in WHO MEC}
Valvular heart disease b. Complicated¶ (pulmonary hypertension, risk for atrial fibrillation, history of subacute bacterial endocarditis)					1 {2}	1 {2}	
Ovarian cancer¶					1 {Initiation = 3, Continuation = 2}	1 {Initiation = 3, Continuation = 2}	
Uterine fibroids					2 {1 if no uterine distortion and 4 if uterine distortion is present}	2 {1 if no uterine distortion and 4 if uterine distortion is present}	

* For conditions for which classification changed for ≥1 methods or the condition description underwent a major modification, WHO conditions and recommendations appear in curly brackets.

† Abbreviations: WHO = World Health Organization; COC = combined oral contraceptive; P = combined hormonal contraceptive patch; R = combined hormonal vaginal ring; POP = progestin-only pill; DMPA = depot medroxyprogesterone acetate; LNG-IUD = levonorgestrel-releasing intrauterine device; Cu-IUD = copper intrauterine device; DVT = deep venous thrombosis; PE = pulmonary embolism; VTE = venous thromboembolism.

§ Consult the clarification column for this classification.

¶ Condition that exposes a women to increased risk as a result of unintended pregnancy.

TABLE 2. Summary of recommendations for medical conditions added to the U.S. Medical Eligibility Criteria for Contraceptive Use*

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD		Cu-IUD		Clarification
					Initiation	Continuation	Initiation	Continuation	
History of bariatric surgery†									
a. Restrictive procedures: decrease storage capacity of the stomach (vertical banded gastroplasty, laparoscopic adjustable gastric band, laparoscopic sleeve gastrectomy)	1	1	1	1	1		1		
b. Malabsorptive procedures: decrease absorption of nutrients and calories by shortening the functional length of the small intestine (Roux-en-Y gastric bypass, biliopancreatic diversion)	COCs: 3 P/R: 1	3	1	1	1		1		
Peripartum cardiomyopathy†									
a. Normal or mildly impaired cardiac function (New York Heart Association Functional Class I or II: patients with no limitation of activities or patients with slight, mild limitation of activity) (*2*)									
i <6 mos	4	1	1	1	2		2		
ii ≥6 mos	3	1	1	1	2		2		
b. Moderately or severely impaired cardiac function (New York Heart Association Functional Class III or IV: patients with marked limitation of activity or patients who should be at complete rest) (*2*)	4	2	2	2	2		2		
Rheumatoid arthritis									
a. On immunosuppressive therapy	2	1	2/3§	1	2	1	2	1	DMPA use among women on long-term corticosteroid therapy with a history of, or risk factors for, nontraumatic fractures is classified as Category 3. Otherwise, DMPA use for women with rheumatoid arthritis is classified as Category 2.
b. Not on immunosuppressive therapy	2	1	2	1	1		1		
Endometrial hyperplasia	1	1	1	1	1		1		
Inflammatory bowel disease (IBD) (ulcerative colitis, Crohn disease)	2/3§	2	2	1	1		1		For women with mild IBD, with no other risk factors for VTE, the benefits of COC/P/R use generally outweigh the risks (Category 2). However, for women with IBD with increased risk for VTE (e.g., those with active or extensive disease, surgery, immobilization, corticosteroid use, vitamin deficiencies, fluid depletion), the risks for COC/P/R use generally outweigh the benefits (Category 3).
Solid organ transplantation†									
a. Complicated: graft failure (acute or chronic), rejection, cardiac allograft vasculopathy	4	2	2	2	3	2	3	2	
b. Uncomplicated	2§	2	2	2	2		2		Women with Budd-Chiari syndrome should not use COC/P/R because of the increased risk for thrombosis.

* Abbreviations: COC = combined oral contraceptive; P = combined hormonal contraceptive patch; R = combined hormonal vaginal ring: POP = progestin-only pill; DMPA = depot medroxyprogesterone acetate; LNG-IUD = levonorgestrel-releasing intrauterine device; Cu-IUD = copper intrauterine device; IBD = inflammatory bowel disease; VTE = venous thromboembolism.

† Condition that exposes a women to increased risk as a result of unintended pregnancy.

§ Consult the clarification column for this classification.

TABLE 3. Summary of additional changes to the U.S. Medical Eligibility Criteria for Contraceptive Use

Condition/Contraceptive method	Change
Emergency contraceptive pills	History of bariatric surgery, rheumatoid arthritis, inflammatory bowel disease, and solid organ transplantation were added to Appendix D and given a Category 1.
Barrier methods	For 6 conditions—history of bariatric surgery, peripartum cardiomyopathy, rheumatoid arthritis, endometrial hyperplasia, inflammatory bowel disease, and solid organ transplantation—the barrier methods are classified as Category 1.
Sterilization	In general, no medical conditions would absolutely restrict a person's eligibility for sterilization. Recommendations from the World Health Organization (WHO) Medical Eligibility Criteria for Contraceptive Use about specific settings and surgical procedures for sterilization are not included here. The guidance has been replaced with general text on sterilization.
Other deleted items	Guidance for combined injectables, levonorgestrel implants, and norethisterone enanthate has been removed because these methods are not currently available in the United States. Guidance for "blood pressure measurement unavailable" and "history of hypertension, where blood pressure CANNOT be evaluated (including hypertension in pregnancy)" has been removed.
Unintended pregnancy and increased health risk	The following conditions have been added to the WHO list of conditions that expose a woman to increased risk as a result of unintended pregnancy: history of bariatric surgery within the past 2 years, peripartum cardiomyopathy, and receiving a solid organ transplant within 2 years.

References

1. Office on Women's Health, US Department of Health and Human Services. HHS blueprint for action on breastfeeding. Washington, DC: US Department of Health and Human Services, Office on Women's Health; 2000.
2. The Criteria Committee of the New York Heart Association. Nomenclature and criteria for diagnosis of diseases of the heart and great vessels. 9th ed. Boston, MA: Little, Brown & Co; 1994.

Appendix B
Classifications for Combined Hormonal Contraceptives

Combined hormonal contraceptives (CHCs) include low-dose (containing ≤35 μg ethinyl estradiol [EE]) combined oral contraceptives (COCs), the combined hormonal patch, and the combined vaginal ring. The combined hormonal patch and vaginal ring are relatively new contraceptive methods. Limited information is available about the safety of these methods among women with specific medical conditions. Moreover, epidemiologic data on the long-term effects of the combined hormonal patch and the vaginal ring were not available for review. Evidence indicates that the combined hormonal patch and the combined vaginal ring provide comparable safety and pharmacokinetic profiles to COCs with similar hormone formulations (*1–33*). Pending further studies, the evidence available for recommendations about COCs applies to the recommendations for the combined hormonal patch and vaginal ring. Therefore, the patch and ring should have the same categories (Box) as COCs, except where noted. The assigned categories should, therefore, be considered a preliminary, best judgement, which will be reevaluated as new data become available. CHCs do not protect against sexually transmitted infections (STIs) or human immunodeficiency virus (HIV).

BOX. Categories for Classifying Combined Hormonal Contraceptives

1 = A condition for which there is no restriction for the use of the contraceptive method.
2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.
4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

TABLE. Classifications for combined hormonal contraceptives, including pill, patch, and ring*†

Condition	Category	Clarifications/Evidence/Comments
Personal Characteristics and Reproductive History		
Pregnancy	Not applicable	**Clarification:** Use of COCs, P, or R is not required. There is no known harm to the woman, the course of her pregnancy, or the fetus if COCs, P, or R are inadvertently used during pregnancy.
Age		
a. Menarche to <40 yrs	1	**Evidence:** Adolescents using 20 μg EE-containing COCs have lower BMD than do nonusers, and higher dose-containing COCs have little to no effect. (*34–41*). In premenopausal adult women, COC use has little to no effect on bone health while appearing to preserve bone mass in perimenopausal women (*26,42–90*). Postmenopausal women who have ever used COCs have similar BMD to postmenopausal women who have never used COCs (*54,58,68,81,91–110*). BMD in adolescent or premenopausal women may not accurately predict postmenopausal fracture risk (*109,111–122*).
b. ≥40 yrs	2	**Comment:** The risk for cardiovascular disease increases with age and might increase with CHC use. In the absence of other adverse clinical conditions, CHCs can be used until menopause.
Parity		
a. Nulliparous	1	
b. Parous	1	
Breastfeeding		**Clarification:** The U.S. Department of Health and Human Services recommends that infants be exclusively breastfed during the first 4–6 months of life, preferably for a full 6 months. Ideally, breastfeeding should continue through the first year of life (*123*).
a. <1 mo postpartum	3	
b. 1 mo to <6 mos postpartum	2	**Evidence:** Clinical studies demonstrate conflicting results about effects on milk volume in women exposed to COCs during lactation; no consistent effect on infant weight has been reported. Adverse health outcomes or manifestations of exogenous estrogen in infants exposed to CHCs through breast milk have not been demonstrated (*124–133*). In general, these studies are of poor quality, lack standard definitions of breastfeeding or outcome measures, and have not included premature or ill infants. Theoretical concerns about effects of CHCs on breast milk production are greater in the early postpartum period when milk flow is being established.
c. ≥6 mos postpartum	2	

TABLE. (*Continued*) Classifications for combined hormonal contraceptives, including pill, patch, and ring*†

Condition	Category	Clarifications/Evidence/Comments
Postpartum (in nonbreastfeeding women)		
a. <21 days	3	**Comment:** Theoretical concern exists about the association between CHC use up to 3 weeks postpartum and risk for thrombosis in the mother. Blood coagulation and fibrinolysis are essentially normalized by 3 weeks postpartum.
b. ≥21 days	1	
Postabortion		**Clarification:** COCs, P, or R may be started immediately postabortion.
a. First trimester	1	**Evidence:** Women who started taking COCs immediately after first trimester medical or surgical abortion did not experience more side effects or adverse vaginal bleeding outcomes or clinically significant changes in coagulation parameters than did women who used a placebo, an IUD, a nonhormonal contraceptive method, or delayed COC initiation (*134–140*). Limited evidence on women using the ring immediately after first trimester medical or surgical abortion found no serious adverse events and no infection related to use of the combined vaginal contraceptive ring during 3 cycles of follow-up postabortion (*141*).
b. Second trimester	1	
c. Immediate postseptic abortion	1	
Past ectopic pregnancy	1	**Comment:** The risk for future ectopic pregnancy is increased among women who have had an ectopic pregnancy in the past. CHCs protect against pregnancy in general, including ectopic gestation.
History of pelvic surgery	1	
Smoking		
a. Age <35 yrs	2	**Evidence:** COC users who smoked were at increased risk for cardiovascular diseases, especially myocardial infarction, than those who did not smoke. Studies also showed an increased risk for myocardial infarction with increasing number of cigarettes smoked per day (*142–153*).
b. Age ≥35 yrs		
i. <15 Cigarettes/day	3	
ii. ≥15 Cigarettes/day	4	
Obesity		
a. ≥30 kg/m^2 BMI	2	**Evidence:** Obese women who use COCs are more likely than obese women who do not use COCs to experience VTE. The absolute risk for VTE in healthy women of reproductive age is small. Limited evidence suggests that obese women who use COCs do not have a higher risk for acute myocardial infarction or stroke than do obese nonusers (*147,153–159*). Limited evidence is inconsistent about whether COC effectiveness varies by body weight or BMI (*160–165*). Limited evidence suggests obese women are no more likely to gain weight after 3 cycles of the vaginal ring or COC than overweight or normal weight women. A similar weight gain during the 3 months was noted between the COC group and the vaginal ring group across all BMI categories (*166*). The effectiveness of the patch decreased among women who weighed >90 kg; however, no association was found between pregnancy risk and BMI (*18*).
b. Menarche to <18 yrs and ≥30 kg/m^2 BMI	2	
History of bariatric surgery§		
a. Restrictive procedures: decrease storage capacity of the stomach (vertical banded gastroplasty, laparoscopic adjustable gastric band, laparoscopic sleeve gastrectomy)	1	**Evidence:** Limited evidence demonstrated no substantial decrease in effectiveness of oral contraceptives among women who underwent laparoscopic placement of an adjustable gastric band (*167*).
b. Malabsorptive procedures: decrease absorption of nutrients and calories by shortening the functional length of the small intestine (Roux-en-Y gastric bypass, biliopancreatic diversion)	COCs: 3 P/R: 1	**Evidence:** Limited evidence demonstrated no substantial decrease in effectiveness of oral contraceptives among women who underwent a biliopancreatic diversion (*168*); however, evidence from pharmacokinetic studies reported conflicting results of oral contraceptive effectiveness among women who underwent a jejunoileal bypass (*169,170*). **Comment:** Bariatric surgical procedures involving a malabsorptive component have the potential to decrease oral contraceptive effectiveness, perhaps further decreased by postoperative complications, such as long-term diarrhea and/or vomiting.
Cardiovascular Disease		
Multiple risk factors for arterial cardiovascular disease (such as older age, smoking, diabetes, and hypertension)	3/4	**Clarification:** When a woman has multiple major risk factors, any of which alone would substantially increase her risk for cardiovascular disease, use of COCs, P, or R might increase her risk to an unacceptable level. However, a simple addition of categories for multiple risk factors is not intended; for example, a combination of two risk factors assigned a category 2 might not necessarily warrant a higher category.
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 might increase substantially. A single reading of blood pressure level is not sufficient to classify a woman as hypertensive.		
a. Adequately controlled hypertension	3	**Clarification:** Women adequately treated for hypertension are at reduced risk for acute myocardial infarction and stroke compared with untreated women. Although no data exist, COC, P, or R users with adequately controlled and monitored hypertension should be at reduced risk for acute myocardial infarction and stroke compared with untreated hypertensive COC, P, or R users.
b. Elevated blood pressure levels (properly taken measurements)		

TABLE. (*Continued*) Classifications for combined hormonal contraceptives, including pill, patch, and ring*†

Condition	Category	Clarifications/Evidence/Comments
i. Systolic 140–159 mm Hg or diastolic 90–99 mm Hg	3	**Evidence:** Among women with hypertension, COC users were at higher risk than nonusers for stroke, acute myocardial infarction, and peripheral arterial disease (*142,144,151–153,155,171–186*).
ii. Systolic ≥160 mm Hg or diastolic ≥100 mm Hg§	4	Discontinuation of COCs in women with hypertension might improve blood pressure control (*187*).
c. Vascular disease	4	
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	2	**Evidence:** Women with a history of high blood pressure in pregnancy, who also used COCs, had a higher risk for myocardial infarction and VTE than did COC users who did not have a history of high blood pressure during pregnancy. The absolute risks for acute myocardial infarction and VTE in this population remained small (*153,172,184–186,188–193*).
Deep venous thrombosis (DVT)/ Pulmonary embolism (PE)		
a. History of DVT/PE, not on anticoagulant therapy		
i. Higher risk for recurrent DVT/PE (≥1 risk factors)	4	
• History of estrogen-associated DVT/PE		
• Pregnancy-associated DVT/PE		
• Idiopathic DVT/PE		
• Known thrombophilia, including antiphospholipid syndrome		
• Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer		
• History of recurrent DVT/PE		
ii. Lower risk for recurrent DVT/PE (no risk factors)	3	
b. Acute DVT/PE	4	
c. DVT/PE and established on anticoagulant therapy for at least 3 mos		
i. Higher risk for recurrent DVT/PE (≥1 risk factors)	4	**Clarification:** Women on anticoagulant therapy are at risk for gynecologic complications of therapy, such as hemorrhagic ovarian cysts and severe menorrhagia. Hormonal contraceptive methods can be of benefit in preventing or treating these complications. When a contraceptive method is used as a therapy, rather than solely to prevent pregnancy, the risk/benefit ratio might differ and should be considered on a case-by-case basis.
• Known thrombophilia, including antiphospholipid syndrome		
• Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer		
• History of recurrent DVT/PE		
ii. Lower risk for recurrent DVT/PE (no risk factors)	3	**Clarification:** Women on anticoagulant therapy are at risk for gynecologic complications of therapy, such as hemorrhagic ovarian cysts and severe menorrhagia. Hormonal contraceptive methods can be of benefit in preventing or treating these complications. When a contraceptive method is used as a therapy, rather than solely to prevent pregnancy, the risk/benefit ratio may differ and should be considered on a case-by-case basis.
d. Family history (first-degree relatives)	2	**Comment:** Some conditions that increase the risk for DVT/PE are heritable.
e. Major surgery		
i. With prolonged immobilization	4	
ii. Without prolonged immobilization	2	
f. Minor surgery without immobilization	1	
Known thrombogenic mutations§ (e.g., factor V Leiden; prothrombin mutation; protein S, protein C, and antithrombin deficiencies)	4	**Clarification**: Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening. **Evidence:** Among women with thrombogenic mutations, COC users had a 2-fold to 20-fold higher risk for thrombosis than did nonusers (*159,194–216*).
Superficial venous thrombosis		
a. Varicose veins	1	**Comment:** Varicose veins are not risk factors for DVT/PE
b. Superficial thrombophlebitis	2	
Current and history of ischemic heart disease§	4	
Stroke§ (history of cerebrovascular accident)	4	

TABLE. (*Continued*) Classifications for combined hormonal contraceptives, including pill, patch, and ring*†

Condition	Category	Clarifications/Evidence/Comments
Known hyperlipidemias	2/3	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening. Although some types of hyperlipidemias are risk factors for vascular disease, the category should be assessed according to the type, its severity, and the presence of other cardiovascular risk factors.
Valvular heart disease		
a. Uncomplicated	2	
b. Complicated§ (pulmonary hypertension, risk for atrial fibrillation, history of subacute bacterial endocarditis)	4	**Comment:** Among women with valvular heart disease, CHC use may further increase the risk for arterial thrombosis; women with complicated valvular heart disease are at greatest risk.
Peripartum cardiomyopathy§		
a. Normal or mildly impaired cardiac function (New York Heart Association Functional Class I or II: patients with no limitation of activities or patients with slight, mild limitation of activity) (*217*)		**Evidence:** No direct evidence exists about the safety of COCs/P/R among women with peripartum cardiomyopathy. Limited indirect evidence from noncomparative studies of women with cardiac disease demonstrated few cases of hypertension and transient ischemic attack in women with cardiac disease using COCs. No cases of heart failure were reported (*218*). **Comment:** COCs might increase fluid retention in healthy women; fluid retention may worsen heart failure in women with peripartum cardiomyopathy. COCs might induce cardiac arrhythmias in healthy women; women with peripartum cardiomyopathy have a high incidence of cardiac arrhythmias.
i. <6 mos	4	
ii. ≥6 mos	3	
b. Moderately or severely impaired cardiac function (New York Heart Association Functional Class III or IV: patients with marked limitation of activity or patients who should be at complete rest) (*217*)	4	**Evidence:** No direct evidence exists about the safety of COCs/P/R among women with peripartum cardiomyopathy. Limited indirect evidence from noncomparative studies of women with cardiac disease demonstrated few cases of hypertension and transient ischemic attack in women with cardiac disease using COCs. No cases of heart failure were reported (*218*). **Comment:** COCs might increase fluid retention in healthy women; fluid retention may worsen heart failure in women with peripartum cardiomyopathy. COCs might induce cardiac arrhythmias in healthy women; women with peripartum cardiomyopathy have a high incidence of cardiac arrhythmias.
Rheumatic Diseases		
Systemic lupus erythematosus (SLE)§		
Persons with SLE are at increased risk for ischemic heart disease, stroke, and VTE. Categories assigned to such conditions in the MEC should be the same for women with SLE who present with these conditions. For all categories of SLE, classifications are based on the assumption that no other risk factors for cardiovascular disease are present; these classifications must be modified in the presence of such risk factors.		
Many women with SLE can be considered good candidates for most contraceptive methods, including hormonal contraceptives (*219–237*).		
a. Positive (or unknown) antiphospholipid antibodies	4	**Evidence:** Antiphospholipid antibodies are associated with a higher risk for both arterial and venous thrombosis (*238,239*).
b. Severe thrombocytopenia	2	
c. Immunosuppressive treatment	2	
d. None of the above	2	
Rheumatoid arthritis		
a. On immunosuppressive therapy	2	**Evidence:** Limited evidence shows no consistent pattern of improvement or worsening of rheumatoid arthritis with use of oral contraceptives (*240–245*), progesterone (*246*), or estrogen (*247*).
b. Not on immunosuppressive therapy	2	
Neurologic Conditions		
Headaches	Initiation / Continuation	**Clarification:** Classification depends on accurate diagnosis of those severe headaches that are migrainous and those headaches that are not. Any new headaches or marked changes in headaches should be evaluated. Classification is for women without any other risk factors for stroke. Risk for stroke increases with age, hypertension and smoking.
a. Non-migrainous (mild or severe)	1 / 2	
b. Migraine		**Evidence:** Among women with migraine, women who also had aura had a higher risk for stroke than did those without aura (*248–250*). Women with a history of migraine who use COCs are about 2–4 times as likely to have an ischemic stroke as nonusers with a history of migraine (*142,157,179,180,249-254*). **Comment:** Aura is a specific focal neurologic symptom. For more information about this and other diagnostic criteria, see: Headache Classification Subcommittee of the International Headache Society. The International Classification of Headache Disorders, 2nd ed. Cephalalgia. 2004;24(Suppl 1). Available http://www.i-h-s.org/upload/ct_clas/ihc_II_main_no_print.pdf.
i. Without aura		
• Age <35 yrs	2 / 3	
• Age ≥35 yrs	3 / 4	
ii. With aura, at any age	4 / 4	
Epilepsy§	1	**Clarification:** If a woman is taking anticonvulsants, refer to the section on drug interactions. Certain anticonvulsants lower COC effectiveness. The extent to which P or R use is similar to COC use in this regard remains unclear.

TABLE. (*Continued*) Classifications for combined hormonal contraceptives, including pill, patch, and ring*†

Condition	Category	Clarifications/Evidence/Comments
Depressive Disorders		
Depressive disorders	1	**Clarification**: The classification is based on data for women with selected depressive disorders. No data on bipolar disorder or postpartum depression were available. Drug interactions potentially can occur between certain antidepressant medications and hormonal contraceptives. **Evidence**: COC use did not increase depressive symptoms in women with depression compared with baseline or with nonusers with depression (*255–264*).
Reproductive Tract Infections and Disorders		
Vaginal bleeding patterns		
a. Irregular pattern without heavy bleeding	1	**Comment:** Irregular menstrual bleeding patterns are common among healthy women.
b. Heavy or prolonged bleeding (includes regular and irregular patterns)	1	**Clarification:** Unusually heavy bleeding should raise suspicion of a serious underlying condition. **Evidence:** A Cochrane Collaboration Review identified 1 randomized controlled trial evaluating the effectiveness of COC use compared with naproxen and danazol in treating menorrhagic women. Women with menorrhagia did not report worsening of the condition or any adverse events related to COC use (*265*).
Unexplained vaginal bleeding (suspicious for serious condition)		
Before evaluation	2	**Clarification:** If pregnancy or an underlying pathological condition (such as pelvic malignancy) is suspected, it must be evaluated and the category adjusted after evaluation. **Comment:** No conditions that cause vaginal bleeding will be worsened in the short term by use of CHCs.
Endometriosis	1	**Evidence:** A Cochrane Collaboration Review identified 1 randomized controlled trial evaluating the effectiveness of COC use compared with a gonadotropin-releasing hormone analogue in treating the symptoms of endometriosis. Women with endometriosis did not report worsening of the condition or any adverse events related to COC use (*266*).
Benign ovarian tumors (including cysts)	1	
Severe dysmenorrhea	1	**Evidence:** Risk for side effects with COC use was not higher among women with dysmenorrhea than among women not using COCs. Some COC users had a reduction in pain and bleeding (*267,268*).
Gestational trophoblastic disease		
a. Decreasing or undetectable β–hCG levels	1	**Evidence:** After molar pregnancy evacuation, the balance of evidence found COC use did not increase the risk for postmolar trophoblastic disease, and β-hCG levels regressed more rapidly in some COC users than in nonusers (*269–275*). Limited evidence suggests that use of COCs during chemotherapy does not significantly affect the regression or treatment of postmolar trophoblastic disease compared with women who used a nonhormonal contraceptive method or DMPA during chemotherapy (*276*).
b. Persistently elevated β-hCG levels or malignant disease§	1	
Cervical ectropion	1	**Comment:** Cervical ectropion is not a risk factor for cervical cancer, and restriction of CHC use is unnecessary.
Cervical intraepithelial neoplasia	2	**Evidence:** Among women with persistent HPV infection, long-term COC use (≥5 years) might increase the risk for carcinoma in situ and invasive carcinoma (*21,277*). Limited evidence on women with low-grade squamous intraepithelial lesions found use of the vaginal ring did not worsen the condition (*21*).
Cervical cancer (awaiting treatment)	2	**Comment:** Theoretical concern exists that CHC use might affect prognosis of the existing disease. While awaiting treatment, women may use CHCs. In general, treatment of this condition can render a woman sterile.
Breast Disease		
a. Undiagnosed mass	2	**Clarification:** The woman should be evaluated as early as possible.
b. Benign breast disease	1	
c. Family history of cancer	1	**Evidence:** Women with breast cancer susceptibility genes (such as *BRCA1* and *BRCA2*) have a higher baseline risk for breast cancer than do women without these genes. The baseline risk for breast cancer is also higher among women with a family history of breast cancer than among those who do not have such a history. However, current evidence does not suggest that the increased risk for breast cancer among women with either a family history of breast cancer or breast cancer susceptibility genes is modified by the use of COCs (*278–295*).
d. Breast cancer§		
i. Current	4	**Comment:** Breast cancer is a hormonally sensitive tumor, and the prognosis for women with current or recent breast cancer might worsen with CHC use.
ii. Past and no evidence of current disease for 5 yrs	3	
Endometrial hyperplasia	1	
Endometrial cancer§	1	**Comment:** COC use reduces the risk for endometrial cancer; whether P or R use reduces the risk for endometrial cancer is not known. While awaiting treatment, women may use COCs, P, or R. In general, treatment of this condition renders a woman sterile.

TABLE. (*Continued*) Classifications for combined hormonal contraceptives, including pill, patch, and ring*†

Condition	Category	Clarifications/Evidence/Comments
Ovarian cancer§	1	**Comment:** COC use reduces the risk for ovarian cancer; whether P or R use reduces the risk for ovarian cancer is not known. While awaiting treatment, women may use COCs, P, or R. In general, treatment of this condition can render a woman sterile.
Uterine fibroids	1	**Comment:** COCs do not appear to cause growth of uterine fibroids, and P and R also are not expected to cause growth.
Pelvic inflammatory disease (PID)		
a. Past PID (assuming no current risk factors for STIs)		**Comment:** COCs might reduce the risk for PID among women with STIs but do not protect against HIV or lower genital tract STIs. Whether use of P or R reduces the risk for PID among women with STIs is unknown, but they do not protect against HIV or lower genital tract STIs.
i. With subsequent pregnancy	1	
ii. Without subsequent pregnancy	1	
b. Current PID	1	
STIs		
a. Current purulent cervicitis or chlamydial infection or gonorrhea	1	
b. Other STIs (excluding HIV and hepatitis)	1	
c. Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	1	
d. Increased risk for STIs	1	**Evidence:** Evidence suggests that chlamydial cervicitis may be increased among COC users at high risk for STIs. For other STIs, there is either evidence of no association between COC use and STI acquisition or too limited evidence to draw any conclusions (*296–376*).
HIV/AIDS		
High risk for HIV	1	**Evidence:** The balance of the evidence suggests no association between oral contraceptive use and HIV acquisition, although findings from studies conducted among higher risk populations have been inconsistent (*377–415*).
HIV infection§	1	**Evidence:** Most studies suggest no increased risk for HIV disease progression with hormonal contraceptive use, as measured by changes in CD4 cell count, viral load, or survival. Studies observing that women with HIV who use hormonal contraception have increased risks of acquiring STIs are generally consistent with reports among uninfected women. One direct study found no association between hormonal contraceptive use and an increased risk for HIV transmission to uninfected partners; several indirect studies reported mixed results about whether hormonal contraception is associated with increased risk for HIV-1 DNA or RNA shedding from the genital tract (*377,416–432*).
AIDS§	1	**Clarification**: Drug interactions may occur between hormonal contraceptives and ARV therapy; refer to the section on drug interactions.
Other Infections		
Schistosomiasis		
a. Uncomplicated	1	**Evidence:** Among women with uncomplicated schistosomiasis, COC use had no adverse effects on liver function (*433–439*).
b. Fibrosis of liver§ (if severe, see cirrhosis)	1	
Tuberculosis§		**Clarification:** If a woman is taking rifampicin, refer to the section on drug interactions. Rifampicin is likely to decrease COC effectiveness. The extent to which P or R use is similar to COC use in this regard remains unclear.
a. Nonpelvic	1	
b. Pelvic	1	
Malaria	1	
Endocrine Conditions		
Diabetes		
a. History of gestational disease	1	**Evidence:** The development of noninsulin-dependant diabetes in women with a history of gestational diabetes is not increased by use of COCs (*440–447*). Likewise, lipid levels appear to be unaffected by COC use (*448–450*).
b. Nonvascular disease		**Evidence:** Among women with insulin- or noninsulin-dependent diabetes, COC use had limited effect on daily insulin requirements and no effect on long-term diabetes control (e.g., glycosylated hemoglobin levels) or progression to retinopathy. Changes in lipid profile and hemostatic markers were limited, and most changes remained within normal values (*451–460*).
i. Noninsulin-dependent	2	
ii. Insulin-dependent§	2	
c. Nephropathy/retinopathy/neuropathy§	3/4	**Clarification:** The category should be assessed according to the severity of the condition.
d. Other vascular disease or diabetes of >20 yrs' duration§	3/4	**Clarification:** The category should be assessed according to the severity of the condition.

TABLE. (*Continued*) Classifications for combined hormonal contraceptives, including pill, patch, and ring*†

Condition	Category	Clarifications/Evidence/Comments
Thyroid disorders		
a. Simple goiter	1	
b. Hyperthyroid	1	
c. Hypothyroid	1	
Gastrointestinal Conditions		
Inflammatory bowel disease (IBD) (ulcerative colitis, Crohn disease)	2/3	**Clarification:** For women with mild IBD and no other risk factor for VTE, the benefits of COC/P/R use generally outweigh the risks (Category 2). However, for women with IBD who are at increased risk for VTE (e.g., those with active or extensive disease, surgery, immobilization, corticosteroid use, vitamin deficiencies, or fluid depletion), the risks of COC/P/R use generally outweigh the benefits (Category 3). **Evidence:** Risk for disease relapse was not significantly higher among women with IBD using oral contraceptives (most studies did not specify formulation) than among nonusers (*461–465*). Absorption of COCs among women with mild ulcerative colitis and no or small ileal resections was similar to the absorption among healthy women (*466,467*). Findings might not apply to women with Crohn disease or more extensive bowel resections. No data exist that evaluate the increased risk for VTE among women with IBD using COCs/P/R. However, women with IBD are at higher risk than unaffected women for VTE (*468*).
Gallbladder disease		
a. Symptomatic		**Comment:** COCs, P, or R might cause a small increased risk for gallbladder disease. COCs, P, or R might worsen existing gallbladder disease.
i. Treated by cholecystectomy	2	
ii. Medically treated	3	
iii. Current	3	
b. Asymptomatic	2	
History of cholestasis		
a. Pregnancy-related	2	**Comment:** History of pregnancy-related cholestasis might predict an increased risk for COC-related cholestasis.
b. Past COC-related	3	**Comment:** History of COC-related cholestasis predicts an increased risk with subsequent COC use.
Viral hepatitis	Initiation / Continuation	
a. Acute or flare	3/4 / 2	**Clarification for initiation:** The category should be assessed according to the severity of the condition.
b. Carrier	1 / 1	**Evidence:** Data suggest that in women with chronic hepatitis, COC use does not increase the rate or severity of cirrhotic fibrosis, nor does it increase the risk for hepatocellular carcinoma (*469,470*). For women who are carriers, COC use does not appear to trigger liver failure or severe dysfunction (*471-473*). Evidence is limited for COC use during active hepatitis (*474*).
c. Chronic	1 / 1	
Cirrhosis		
a. Mild (compensated)	1	
b. Severe§ (decompensated)	4	
Liver tumors		
a. Benign		**Evidence:** Limited direct evidence suggests that hormonal contraceptive use does not influence either progression or regression of liver lesions among women with focal nodular hyperplasia (*475,476*).
i. Focal nodular hyperplasia	2	
ii. Hepatocellular adenoma§	4	
b. Malignant§ (hepatoma)	4	
Anemias		
Thalassemia	1	**Comment:** Anecdotal evidence from countries where thalassemia is prevalent indicates that COC use does not worsen the condition.
Sickle cell disease§	2	
Iron deficiency anemia	1	**Comment:** CHC use may decrease menstrual blood loss.
Solid Organ Transplantation		
Solid organ transplantation§		
a. Complicated: graft failure (acute or chronic), rejection, cardiac allograft vasculopathy	4	**Evidence:** Limited evidence of COC and P users indicated no overall changes in biochemical measures. However, one study reported discontinuations of COC use in 2 (8%) of 26 women as a result of serious medical complications, and in one case report, a woman developed cholestasis associated with high-dose COC use (*477–480*).
b. Uncomplicated	2	**Clarification:** Women with Budd-Chiari syndrome should not use COC/P/R because of the increased risk for thrombosis. **Evidence:** Limited evidence of COC and P users indicated no overall changes in biochemical measures. However, one study reported discontinuations of COC use in 2 (8%) of 26 women as a result of serious medical complications, and in one case report, a woman developed cholestasis associated with high-dose COC use (*477–480*).

TABLE. (*Continued*) Classifications for combined hormonal contraceptives, including pill, patch, and ring*†

Condition	Category	Clarifications/Evidence/Comments
Drug Interactions		
Antiretroviral (ARV) therapy		**Clarification:** ARV drugs have the potential to either decrease or increase the bioavailability of steroid hormones in hormonal contraceptives. Limited data (summarized in Appendix M) suggest potential drug interactions between many ARV drugs (particularly some non-NNRTIs and ritonavir-boosted protease inhibitors) and hormonal contraceptives. These interactions might alter the safety and effectiveness of both the hormonal contraceptive and the ARV drug. Thus, if a woman on ARV treatment decides to initiate or continue hormonal contraceptive use, the consistent use of condoms is recommended to both prevent HIV transmission and compensate for any possible reduction in the effectiveness of the hormonal contraceptive. When a COC is chosen, a preparation containing a minimum of 30 μg EE should be used.
a. Nucleoside reverse transcriptase inhibitors (NRTIs)	1	
b. Non-nucleoside reverse transcriptase inhibitors (NNRTIs)	2	
c. Ritonavir-boosted protease inhibitors	3	
Anticonvulsant therapy		**Clarification:** Although the interaction of certain anticonvulsants with COCs, P, or R is not harmful to women, it is likely to reduce the effectiveness of COCs, P, or R. Use of other contraceptives should be encouraged for women who are long-term users of any of these drugs. When a COC is chosen, a preparation containing a minimum of 30 μg EE should be used.
a. Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	3	**Evidence:** Use of certain anticonvulsants might decrease the effectiveness of COCs (*481–484*).
b. Lamotrigine	3	**Clarification:** The recommendation for lamotrigine applies only for situations where lamotrigine monotherapy is taken concurrently with COCs. Anticonvulsant treatment regimens that combine lamotrigine and nonenzyme-inducing antiepileptic drugs (such as sodium valproate) do not interact with COCs. **Evidence:** Pharmacokinetic studies show levels of lamotrigine decrease significantly during COC use (*485–489*). Some women who used both COCs and lamotrigine experienced increased seizure activity in one trial (*485*).
Antimicrobial therapy		
a. Broad-spectrum antibiotics	1	**Evidence:** Most broad-spectrum antibiotics do not affect the contraceptive effectiveness of COCs(*490–526*), P (*527*) or R (*528*).
b. Antifungals	1	**Evidence:** Studies of antifungal agents have shown no clinically significant pharmacokinetic interactions with COCs (*529–538*) or R (*539*).
c. Antiparasitics	1	**Evidence:** Studies of antiparasitic agents have shown no clinically significant pharmacokinetic interactions with COCs (*433,540–544*).
d. Rifampicin or rifabutin therapy	3	**Clarification:** Although the interaction of rifampicin or rifabutin therapy with COCs, P, or R is not harmful to women, it is likely to reduce the effectiveness of COCs, P, or R. Use of other contraceptives should be encouraged for women who are long-term users of either of these drugs. When a COC is chosen, a preparation containing a minimum of 30 μg EE should be used. **Evidence:** The balance of the evidence suggests that rifampicin reduces the effectiveness of COCs (*545–560*). Data on rifabutin are limited, but effects on metabolism of COCs are less than with rifampicin, and small studies have not shown evidence of ovulation (*547,554*).

* Abbreviations: STI = sexually transmitted infection; HIV = human immunodeficiency virus; COC = combined oral contraceptive; P = patch; R = ring; EE = ethinyl estradiol; BMD = bone mineral density; CHC = combined hormonal contraceptive; IUD = intrauterine device; VTE = venous thromboembolism; BMI = body mass index; DVT = deep venous thrombosis; PE = pulmonary embolism; SLE = systemic lupus erythematosus; MEC = Medical Eligibility Criteria; hCG = human chorionic gonadotropin; DMPA = depot medroxyprogesterone acetate; HPV = human papillomavirus; PID = pelvic inflammatory disease; AIDS = acquired immunodeficiency syndrome; ARV = antiretroviral; IBD = inflammatory bowel disease; NRTI = nucleoside reverse transcriptase inhibitor; NNRTI = non-nucleoside reverse transcriptase inhibitor.

† COCs/P/R do not protect against STI/HIV. If risk for STI/HIV (including during pregnancy or postpartum) exists, the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STI/HIV transmission.

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

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Appendix C
Classifications for Progestin-Only Contraceptives

Classifications for progestin-only contraceptives (POCs) include those for progestin-only pills, depot medroxyprogesterone acetate, and progestin-only implants (Box). POCs do not protect against sexually transmitted infections (STIs) or human immunodeficiency virus (HIV).

BOX. Categories for Classifying Progestin-Only Contraceptives

1 = A condition for which there is no restriction for the use of the contraceptive method.
2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.
4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

TABLE. Classifications for progestin-only contraceptives, including progestin-only pills, DMPA, and implants*†

Condition	Category			Clarifications/Evidence/Comments
	POP	DMPA	Implants	
Personal Characteristics and Reproductive History				
Pregnancy	Not applicable	Not applicable	Not applicable	**Clarification:** Use of POCs is not required. There is no known harm to the woman, the course of her pregnancy, or the fetus if POCs are inadvertently used during pregnancy. However, the relation between DMPA use during pregnancy and its effects on the fetus remains unclear.
Age				
a. Menarche to <18 yrs	1	2	1	**Evidence:** Most studies have found that women lose BMD while using DMPA but regain BMD after discontinuing DMPA. It is not known whether DMPA use among adolescents affects peak bone mass levels or whether adult women with long duration of DMPA use can regain BMD to baseline levels before entering menopause. The relation between DMPA-associated changes in BMD during the reproductive years and future fracture risk is unknown (*1–41*). Studies find no effect or have inconsistent results about the effects of POCs other than DMPA on BMD (*42–54*).
b. 18–45 yrs	1	1	1	
c. >45 yrs	1	2	1	
Parity				
a. Nulliparous	1	1	1	
b. Parous	1	1	1	
Breastfeeding				**Clarification:** The U.S. Department of Health and Human Services recommends that infants be exclusively breastfed during the first 4–6 months of life, preferably for a full 6 months. Ideally, breastfeeding should continue through the first year of life (*55*).
a. <1 mo postpartum	2	2	2	
b. 1 mo to <6 mos postpartum	1	1	1	
c. ≥6 mos postpartum	1	1	1	**Evidence:** Despite anecdotal clinical reports that POCs might diminish milk production, direct evidence from available clinical studies demonstrates no significant negative effect of POCs on breastfeeding performance (*56–90*) or on the health of the infant (*66,70,72,76–81,91–93*). In general, these studies are of poor quality, lack standard definitions of breastfeeding or outcome measures, and have not included premature or ill infants. Theoretical concerns about effects of progestin exposure on the developing, neonatal brain are based on studies of progesterone effects in animals; whether similar effects occur after progestin exposure in human neonates is not known.

TABLE. (*Continued*) Classifications for progestin-only contraceptives,*† including progestin-only pills, DMPA, and implants

Condition	Category			Clarifications/Evidence/Comments
	POP	DMPA	Implants	
Postpartum (in nonbreastfeeding women)				
a. <21 days	1	1	1	
b. ≥21 days	1	1	1	
Postabortion				**Clarification:** POCs may be started immediately postabortion.
a. First trimester	1	1	1	
b. Second trimester	1	1	1	**Evidence:** Limited evidence suggests that there are no adverse side effects when implants (Norplant) or progestin-only injectables (NET-EN) are initiated after first trimester abortion (*94–97*).
c. Immediate postseptic abortion	1	1	1	
Past ectopic pregnancy	2	1	1	**Comments:** POP users have a higher absolute rate of ectopic pregnancy than do users of other POCs but still less than using no method.
History of pelvic surgery	1	1	1	
Smoking				
a. Age <35 yrs	1	1	1	
b. Age ≥35 yrs				
i. <15 Cigarettes/day	1	1	1	
ii. ≥15 Cigarettes/day	1	1	1	
Obesity				
a. ≥30 kg/m^2 BMI	1	1	1	
b. Menarche to <18 yrs and ≥30 kg/m^2 BMI	1	2	1	**Evidence:** Obese adolescents who used DMPA were more likely than obese nonusers, obese COC users, and nonobese DMPA users to gain weight. These associations were not observed among adult women. One small study did not observe increases in weight gain among adolescent Norplant users by any category of baseline weight (*98–105*).
History of bariatric surgery§				
a. Restrictive procedures: decrease storage capacity of the stomach (vertical banded gastroplasty, laparoscopic adjustable gastric band, laparoscopic sleeve gastrectomy)	1	1	1	**Evidence:** Limited evidence demonstrated no substantial decrease in effectiveness of oral contraceptives among women who underwent laparoscopic placement of an adjustable gastric band (*106*).
b. Malabsorptive procedures: decrease absorption of nutrients and calories by shortening the functional length of the small intestine (Roux-en-Y gastric bypass, biliopancreatic diversion)	3	1	1	**Evidence:** Limited evidence demonstrated no substantial decrease in effectiveness of oral contraceptives among women who underwent a biliopancreatic diversion (*107*); however, evidence from pharmacokinetic studies suggested conflicting results of oral contraceptive effectiveness among women who underwent a jejunoileal bypass (*108,109*). **Comment:** Bariatric surgical procedures involving a malabsorptive component have the potential to decrease oral contraceptive effectiveness, perhaps further decreased by postoperative complications, such as long-term diarrhea and/or vomiting.
Cardiovascular Disease				
Multiple risk factors for arterial cardiovascular disease (such as older age, smoking, diabetes, and hypertension)	2	3	2	**Clarification:** When multiple major risk factors exist, risk for cardiovascular disease might increase substantially. Some POCs might increase the risk for thrombosis, although this increase is substantially less than with COCs. The effects of DMPA might persist for some time after discontinuation.
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 might increase substantially. A single reading of blood pressure level is not sufficient to classify a woman as hypertensive.				
a. Adequately controlled hypertension	1	2	1	**Clarification:** Women adequately treated for hypertension are at lower risk for acute myocardial infarction and stroke than are untreated women. Although no data exist, POC users with adequately controlled and monitored hypertension should be at lower risk for acute myocardial infarction and stroke than are untreated hypertensive POC users.

TABLE. (*Continued*) Classifications for progestin-only contraceptives,*† including progestin-only pills, DMPA, and implants

Condition	Category			Clarifications/Evidence/Comments
	POP	DMPA	Implants	
b. Elevated blood pressure levels (properly taken measurements)				
i. Systolic 140–159 mm Hg or diastolic 90–99 mm Hg	1	2	1	**Evidence:** Limited evidence suggests that among women with hypertension, those who used POPs or progestin-only injectables had a small increased risk for cardiovascular events than did women who did not use these methods (*110*).
ii. Systolic ≥160 mm Hg or diastolic ≥100 mm Hg§	2	3	2	
c. Vascular disease	2	3	2	**Comment:** Concern exists about hypo-estrogenic effects and reduced HDL levels, particularly among users of DMPA. However, there is little concern about these effects with regard to POPs. The effects of DMPA might persist for some time after discontinuation
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	1	1	1	
Deep venous thrombosis (DVT)/ Pulmonary embolism (PE)				
a. History of DVT/PE, not on anticoagulant therapy				
i. Higher risk for recurrent DVT/PE (≥1 risk factors)	2	2	2	
• History of estrogen-associated DVT/PE				
• Pregnancy-associated DVT/PE				
• Idiopathic DVT/PE				
• Known thrombophilia, including antiphospholipid syndrome				
• Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer				
• History of recurrent DVT/PE				
ii Lower risk for recurrent DVT/PE (no risk factors)	2	2	2	
b. Acute DVT/PE	2	2	2	**Evidence:** No direct evidence exists on use of POCs among women with acute DVT/PE. Although findings on the risk for venous thrombosis with use of POCs in otherwise healthy women is inconsistent, any small increased risk is substantially less than that with COCs (*110–112*).
c. DVT/PE and established on anticoagulant therapy for at least 3 mos				**Evidence:** No direct evidence exists on use of POCs among women with DVT/PE on anticoagulant therapy. Although findings on the risk for venous thrombosis with use of POCs are inconsistent in otherwise healthy women, any small increased risk is substantially less than that with COCs (*110–112*).
i. Higher risk for recurrent DVT/PE (≥1 risk factors)	2	2	2	
• Known thrombophilia, including antiphospholipid syndrome				Limited evidence indicates that intramuscular injections of DMPA in women on chronic anticoagulation therapy does not pose a significant risk for hematoma at the injection site or increase the risk for heavy or irregular vaginal bleeding (*113*).
• Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer				
• History of recurrent DVT/PE				
ii. Lower risk for recurrent DVT/PE (no risk factors)	2	2	2	
d. Family history (first-degree relatives)	1	1	1	
e. Major surgery				
i. With prolonged immobilization	2	2	2	
ii. Without prolonged immobilization	1	1	1	
f. Minor surgery without immobilization	1	1	1	

TABLE. (*Continued*) Classifications for progestin-only contraceptives,*† including progestin-only pills, DMPA, and implants

Condition	Category				Clarifications/Evidence/Comments
	POP		DMPA	Implants	
Known thrombogenic mutations§ (e.g., factor V Leiden; prothrombin mutation; protein S, protein C, and antithrombin deficiencies)	2		2	2	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening.
Superficial venous thrombosis					
a. Varicose veins	1		1	1	
b. Superficial thrombophlebitis	1		1	1	
Current and history of ischemic heart disease§	Initiation	Continuation		Initiation	Continuation	**Comment:** Concern exists about hypo-estrogenic effects and reduced HDL levels, particularly among users of DMPA. However, there is little concern about these effects with regard to POPs. The effects of DMPA might persist for some time after discontinuation.
	2	3	3	2	3	
Stroke§ (history of cerebrovascular accident)	Initiation	Continuation		Initiation	Continuation	**Comment:** Concern exists about hypo-estrogenic effects and reduced HDL levels, particularly among users of DMPA. However, there is little concern about these effects with regard to POPs. The effects of DMPA may persist for some time after discontinuation.
	2	3	3	2	3	
Known hyperlipidemias	2		2	2	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening. Some types of hyperlipidemias are risk factors for vascular disease.
Valvular heart disease					
a. Uncomplicated	1		1	1	
b. Complicated§ (pulmonary hypertension, risk for atrial fibrillation, history of subacute bacterial endocarditis)	1		1	1	
Peripartum cardiomyopathy§					
a. Normal or mildly impaired cardiac function (New York Heart Association Functional Class I or II: patients with no limitation of activities or patients with slight, mild limitation of activity) (*114*)					**Evidence:** No direct evidence exists on the safety of POCs among women with peripartum cardiomyopathy. Limited indirect evidence from noncomparative studies of women with cardiac disease demonstrated few cases of hypertension, thromboembolism, and heart failure in women with cardiac disease using POPs and DMPA (*115,116*). **Comment:** Progestin-only implants might induce cardiac arrhythmias in healthy women; women with peripartum cardiomyopathy have a high incidence of cardiac arrhythmias.
i. <6 mos	1		1	1	
ii. ≥6 mos	1		1	1	
b. Moderately or severely impaired cardiac function (New York Heart Association Functional Class III or IV: patients with marked limitation of activity or patients who should be at complete rest) (*114*)	2		2	2	**Evidence:** No direct evidence exists on the safety of POCs among women with peripartum cardiomyopathy. Limited indirect evidence from noncomparative studies of women with cardiac disease demonstrated few cases of hypertension, thromboembolism, and heart failure in women with cardiac disease using POPs and DMPA (*115,116*). **Comment:** Progestin-only implants might induce cardiac arrhythmias in healthy women; women with peripartum cardiomyopathy have a high incidence of cardiac arrhythmias.

TABLE. (*Continued*) Classifications for progestin-only contraceptives,*† including progestin-only pills, DMPA, and implants

Condition	Category: POP	Category: DMPA	Category: Implants	Clarifications/Evidence/Comments
Rheumatic Diseases				
Systemic lupus erythematosus (SLE)§				Persons with SLE are at increased risk for ischemic heart disease, stroke, and VTE. Categories assigned to such conditions in the MEC should be the same for women with SLE who present with these conditions. For all categories of SLE, classifications are based on the assumption that no other risk factors for cardiovascular disease are present; these classifications must be modified in the presence of such risk factors. Many women with SLE can be considered good candidates for most contraceptive methods, including hormonal contraceptives (*117–135*).
a. Positive (or unknown) antiphospholipid antibodies	3	Initiation 3 / Continuation 3	3	**Evidence:** Antiphospholipid antibodies are associated with a higher risk for both arterial and venous thrombosis (*136,137*).
b. Severe thrombocytopenia	2	3 / 2	2	**Comment:** Severe thrombocytopenia increases the risk for bleeding. POCs might be useful in treating menorrhagia in women with severe thrombocytopenia. However, given the increased or erratic bleeding that may be seen on initiation of DMPA and its irreversibility for 11–13 weeks after administration, initiation of this method in women with severe thrombocytopenia should be done with caution.
c. Immunosuppressive treatment	2	2 / 2	2	
d. None of the above	2	2 / 2	2	
Rheumatoid arthritis				
a. On immunosuppressive therapy	1	2/3	1	**Clarification:** DMPA use among women on long-term corticosteroid therapy with a history of, or with risk factors for, nontraumatic fractures is classified as Category 3. Otherwise, DMPA use for women with rheumatoid arthritis is classified as Category 2. **Evidence:** Limited evidence shows no consistent pattern of improvement or worsening of rheumatoid arthritis with use of oral contraceptives (*138–143*), progesterone (*144*), or estrogen (*145*).
b. Not on immunosuppressive therapy	1	2	1	
Neurologic Conditions				
Headaches	Initiation / Continuation	Initiation / Continuation	Initiation / Continuation	**Clarification:** Classification depends on accurate diagnosis of severe headaches that are migrainous and headaches that are not. Any new headaches or marked changes in headaches should be evaluated. Classification is for women without any other risk factors for stroke. Risk for stroke increases with age, hypertension, and smoking. **Comment:** Aura is a specific focal neurologic symptom. For more information about this and other diagnostic criteria, see: Headache Classification Subcommittee of the International Headache Society. The international classification of headache disorders. 2nd Ed. Cephalalgia. 2004;24 (Suppl 1):1–150. http://www.i-h-s.org/upload/ct_clas/ihc_II_main_no_print.pdf. Concern exists that severe headaches might increase with use of DMPA and implants. The effects of DMPA may persist for some time after discontinuation.
a. Non-migrainous (mild or severe)	1 / 1	1 / 1	1 / 1	
b. Migraine				
i. Without aura				
• Age <35 yrs	1 / 2	2 / 2	2 / 2	
• Age ≥35 yrs	1 / 2	2 / 2	2 / 2	
ii. With aura, at any age	2 / 3	2 / 3	2 / 3	
Epilepsy§	1	1	1	**Clarification:** If a woman is taking anticonvulsants, refer to the section on drug interactions. Certain anticonvulsants lower POC effectiveness.
Depressive Disorders				
Depressive disorders	1	1	1	**Clarification:** The classification is based on data for women with selected depressive disorders. No data on bipolar disorder or postpartum depression were available. A potential exists for drug interactions between certain antidepressant medications and hormonal contraceptives. **Evidence:** POC use did not increase depressive symptoms in women with depression compared with baseline (*146–149*).

TABLE. (*Continued*) Classifications for progestin-only contraceptives,*† including progestin-only pills, DMPA, and implants

Condition	Category			Clarifications/Evidence/Comments
	POP	DMPA	Implants	
Reproductive Tract Infections and Disorders				
Vaginal bleeding patterns				
a. Irregular pattern without heavy bleeding	2	2	2	**Comment:** Irregular menstrual bleeding patterns are common among healthy women. POC use frequently induces an irregular bleeding pattern. Implant use might induce irregular bleeding patterns, especially during the first 3–6 months, but these patterns may persist longer.
b. Heavy or prolonged bleeding (includes regular and irregular patterns)	2	2	2	**Clarification:** Unusually heavy bleeding should raise the suspicion of a serious underlying condition.
Unexplained vaginal bleeding (suspicious for serious condition)				**Clarification:** If pregnancy or an underlying pathological condition (such as pelvic malignancy) is suspected, it must be evaluated and the category adjusted after evaluation.
Before evaluation	2	3	3	**Comment:** POCs might cause irregular bleeding patterns, which might mask symptoms of underlying pathology. The effects of DMPA might persist for some time after discontinuation.
Endometriosis	1	1	1	
Benign ovarian tumors (including cysts)	1	1	1	
Severe dysmenorrhea	1	1	1	
Gestational trophoblastic disease				
a. Decreasing or undetectable β–hCG levels	1	1	1	
b. Persistently elevated β-hCG levels or malignant disease§	1	1	1	
Cervical ectropion	1	1	1	
Cervical intraepithelial neoplasia	1	2	2	**Evidence:** Among women with persistent HPV infection, long-term DMPA use (≥5 years) might increase the risk for carcinoma in situ and invasive carcinoma (*150*).
Cervical cancer (awaiting treatment)	1	2	2	**Comment:** Theoretical concern exists that POC use might affect prognosis of the existing disease. While awaiting treatment, women may use POCs. In general, treatment of this condition can render a woman sterile.
Breast disease				
a. Undiagnosed mass	2	2	2	**Clarification:** Evaluation should be pursued as early as possible.
b. Benign breast disease	1	1	1	
c. Family history of cancer	1	1	1	
d. Breast cancer§				
i. Current	4	4	4	**Comment:** Breast cancer is a hormonally sensitive tumor, and the prognosis for women with current or recent breast cancer might worsen with POC use.
ii. Past and no evidence of current disease for 5 years	3	3	3	
Endometrial hyperplasia	1	1	1	
Endometrial cancer§	1	1	1	**Comment:** While awaiting treatment, women may use POCs. In general, treatment of this condition renders a woman sterile.
Ovarian cancer§	1	1	1	**Comment:** While awaiting treatment, women may use POCs. In general, treatment of this condition can render a woman sterile.
Uterine fibroids	1	1	1	**Comment:** POCs do not appear to cause growth of uterine fibroids.

TABLE. (*Continued*) Classifications for progestin-only contraceptives,*† including progestin-only pills, DMPA, and implants

Condition	Category			Clarifications/Evidence/Comments
	POP	DMPA	Implants	
Pelvic inflammatory disease (PID)				
a. Past PID (assuming no current risk factors for STIs)				**Comment:** Whether POCs, like COCs, reduce the risk for PID among women with STIs is unknown, but they do not protect against HIV or lower genital tract STI.
i. With subsequent pregnancy	1	1	1	
ii. Without subsequent pregnancy	1	1	1	
b. Current PID	1	1	1	
STIs				
a. Current purulent cervicitis or chlamydial infection or gonorrhea	1	1	1	
b. Other STIs (excluding HIV and hepatitis)	1	1	1	
c. Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	1	1	1	
d. Increased risk for STIs	1	1	1	**Evidence:** Evidence suggests a possible increased risk for chlamydial cervicitis among DMPA users at high risk for STIs. For other STIs, either evidence exists of no association between DMPA use and STI acquisition or evidence is too limited to draw any conclusions. No evidence is available about other POCs (*151–158*)
HIV/AIDS				
High risk for HIV	1	1	1	**Evidence:** The balance of the evidence suggests no association between POC use and HIV acquisition, although findings from studies of DMPA use conducted among higher risk populations have been inconsistent (*159–183*).
HIV infection§	1	1	1	**Evidence:** Most studies suggest no increased risk for HIV disease progression with hormonal contraceptive use, as measured by changes in CD4 cell count, viral load, or survival. Studies observing that women with HIV who use hormonal contraception have increased risks for STIs are generally consistent with reports among uninfected women. One direct study found no association between hormonal contraceptive use and increased risk for HIV transmission to uninfected partners; several indirect studies reported mixed results about whether hormonal contraception is associated with increased risk for HIV-1 DNA or RNA shedding from the genital tract (*171,184–200*).
AIDS§	1	1	1	**Clarification:** Drug interactions might exist between hormonal contraceptives and ARV drugs; refer to the section on drug interactions.
Other Infections				
Schistosomiasis				
a. Uncomplicated	1	1	1	**Evidence:** Among women with uncomplicated schistosomiasis, limited evidence showed that DMPA use had no adverse effects on liver function (*201*).
b. Fibrosis of liver§ (if severe, see cirrhosis)	1	1	1	
Tuberculosis§				**Clarification:** If a woman is taking rifampicin, refer to the section on drug interactions. Rifampicin is likely to decrease the effectiveness of some POCs.
a. Nonpelvic	1	1	1	
b. Pelvic	1	1	1	
Malaria	1	1	1	

TABLE. (*Continued*) Classifications for progestin-only contraceptives,*† including progestin-only pills, DMPA, and implants

Condition	Category			Clarifications/Evidence/Comments
	POP	DMPA	Implants	
Endocrine Conditions				
Diabetes				
a. History of gestational disease	1	1	1	**Evidence:** POCs had no adverse effects on serum lipid levels in women with a history of gestational diabetes in 2 small studies. (*202,203*) Limited evidence is inconsistent about the development of noninsulin-dependant diabetes among users of POCs with a history of gestational diabetes (*204–207*).
b. Nonvascular disease				
i. Noninsulin-dependent	2	2	2	**Evidence:** Among women with insulin- or noninsulin-dependent diabetes, limited evidence on use of POCs (POPs, DMPA, LNG implant) suggests that these methods have little effect on short-term or long-term diabetes control (e.g., glycosylated hemoglobin levels), hemostatic markers, or lipid profile (*208–211*).
ii. Insulin-dependent§	2	2	2	
c. Nephropathy/retinopathy/ neuropathy§	2	3	2	**Comment:** Concern exists about hypo-estrogenic effects and reduced HDL levels, particularly among users of DMPA. The effects of DMPA might persist for some time after discontinuation. Some POCs might increase the risk for thrombosis, although this increase is substantially less than with COCs.
d. Other vascular disease or diabetes of >20 yrs' duration§	2	3	2	**Comment:** Concern exists about hypo-estrogenic effects and reduced HDL levels, particularly among users of DMPA. The effects of DMPA might persist for some time after discontinuation. Some POCs might increase the risk for thrombosis, although this increase is substantially less than with COCs.
Thyroid disorders				
a. Simple goiter	1	1	1	
b. Hyperthyroid	1	1	1	
c. Hypothyroid	1	1	1	
Gastrointestinal Conditions				
Inflammatory bowel disease (IBD) (ulcerative colitis, Crohn disease)	2	2	1	**Evidence:** Risk for disease relapse among women with IBD using oral contraceptives (most studies did not specify formulation) did not increase significantly from that for nonusers (*212–216*). **Comment:** Absorption of POPs among women with IBD might be reduced if the woman has substantial malabsorption caused by severe disease or small bowel surgery. Women with IBD have a higher prevalence than the general population of osteoporosis and osteopenia. Use of DMPA, which has been associated with small changes in BMD, might be of concern.
Gallbladder disease				
a. Symptomatic				
i. Treated by cholecystectomy	2	2	2	
ii. Medically treated	2	2	2	
iii. Current	2	2	2	
b. Asymptomatic	2	2	2	
History of cholestasis				
a. Pregnancy-related	1	1	1	
b. Past COC–related	2	2	2	**Comment:** Theoretically, a history of COC-related cholestasis might predict subsequent cholestasis with POC use. However, this has not been documented.
Viral hepatitis				
a. Acute or flare	1	1	1	
b. Carrier	1	1	1	
c. Chronic	1	1	1	

TABLE. (*Continued*) Classifications for progestin-only contraceptives,*† including progestin-only pills, DMPA, and implants

Condition	Category			Clarifications/Evidence/Comments
	POP	DMPA	Implants	
Cirrhosis				
a. Mild (compensated)	1	1	1	
b. Severe§ (decompensated)	3	3	3	
Liver tumors				
a. Benign				**Evidence:** Limited direct evidence suggests that hormonal contraceptive use does not influence either progression or regression of liver lesions among women with focal nodular hyperplasia (*217*,*218*).
i. Focal nodular hyperplasia	2	2	2	
ii. Hepatocellular adenoma§	3	3	3	**Comment:** No evidence is available about hormonal contraceptive use among women with hepatocellular adenoma. COC use in healthy women is associated with development and growth of hepatocellular adenoma; whether other hormonal contraceptives have similar effects is not known.
b. Malignant§ (hepatoma)	3	3	3	
Anemias				
Thalassemia	1	1	1	
Sickle cell disease§	1	1	1	**Evidence:** Among women with sickle cell disease, POC use did not have adverse effects on hematologic parameters and, in some studies, was beneficial with respect to clinical symptoms (*219–226*).
Iron deficiency anemia	1	1	1	**Comment:** Changes in the menstrual pattern associated with POC use have little effect on hemoglobin levels.
Solid Organ Transplantation				
Solid organ transplantaton§				
a. Complicated: graft failure (acute or chronic), rejection, cardiac allograft vasculopathy	2	2	2	
b. Uncomplicated	2	2	2	
Drug Interactions				
Antiretroviral (ARV) therapy				**Clarification:** ARV drugs have the potential to either decrease or increase the bioavailability of steroid hormones in hormonal contraceptives. Limited data (Appendix M) suggest potential drug interactions between many ARV drugs (particularly some NNRTIs and ritonavir-boosted protease inhibitors) and hormonal contraceptives. These interactions may alter the safety and effectiveness of both the hormonal contraceptive and the ARV drug. Thus, if a woman on ARV treatment decides to initiate or continue hormonal contraceptive use, the consistent use of condoms is recommended to both prevent HIV transmission and compensate for any possible reduction in the effectiveness of the hormonal contraceptive.
a. Nucleoside reverse transcriptase inhibitors (NRTIs)	1	1	1	
b. Non-nucleoside reverse transcriptase inhibitors (NNRTIs)	2	1	2	
c. Ritonavir-boosted protease inhibitors	3	1	2	
Anticonvulsant therapy				
a. Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	3	1	2	**Clarification:** Although the interaction of certain anticonvulsants with POPs and ETG implants is not harmful to women, it is likely to reduce the effectiveness of POPs and ETG implants. Whether increasing the hormone dose of POPs alleviates this concern remains unclear. Use of other contraceptives should be encouraged for women who are long-term users of any of these drugs. Use of DMPA is a Category 1 because its effectiveness is not decreased by use of certain anticonvulsants. **Evidence:** Use of certain anticonvulsants may decrease the effectiveness of POCs (*227–229*)
b. Lamotrigine	1	1	1	**Evidence:** No drug interactions have been reported among epileptic women taking lamotrigine and using POCs (*230*)

TABLE. (*Continued*) Classifications for progestin-only contraceptives,*† including progestin-only pills, DMPA, and implants

Condition	Category			Clarifications/Evidence/Comments
	POP	DMPA	Implants	
Antimicrobial therapy				
a. Broad-spectrum antibiotics	1	1	1	
b. Antifungals	1	1	1	
c. Antiparasitics	1	1	1	
d. Rifampicin or rifabutin therapy	3	1	2	**Clarification:** Although the interaction of rifampicin or rifabutin with POPs and ETG implants is not harmful to women, it is likely to reduce the effectiveness of POPs and ETG implants. Use of other contraceptives should be encouraged for women who are long-term users of any of these drugs. Use of DMPA is a Category 1 because its effectiveness is not decreased by use of rifampicin or rifabutin. Whether increasing the hormone dose of POPs alleviates this concern remains unclear.

* Abbreviations: STI = sexually transmitted infection; HIV = human immunodeficiency virus; POC = progestin-only contraceptive; DMPA = depot medroxyprogesterone acetate; BMD = bone mineral density; NET-EN = norethisterone enantate; BMI = body mass index; COC = combined oral contraceptive; HDL = high-density lipoprotein; POP = progestin-only pill; DVT = deep venous thrombosis; PE = pulmonary embolism; SLE = systemic lupus erythematosus; VTE = venous thromboembolism; MEC = Medical Eligibility Criteria; hCG = human chorionic gonadotropin; HPV = human papillomavirus; PID = pelvic inflammatory disease; AIDS = acquired immunodeficiency syndrome; IBD = inflammatory bowel disease; ARV = antiretroviral; LNG = levonorgestrel; NRTI = nucleoside reverse transcriptase inhibitor; NNRTI = non-nucleoside reverse transcriptase inhibitor; ETG = etonogestrel.

† POCs do not protect against STI/HIV. If risk exists for STI/HIV (including during pregnancy or postpartum), the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STIs and HIV transmission.

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

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Appendix D
Classifications for Emergency Contraceptive Pills

Classifications for emergency contraceptive pills (ECPs) are for both levonorgestrel and combined oral contraceptive pills. ECPs do not protect against sexually transmitted infections (STIs) or human immunodeficiency virus (HIV).

BOX. Categories for Classifying Emergency Contraceptive Pills

1 = A condition for which there is no restriction for the use of the contraceptive method.
2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.
4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

TABLE. Classifications for emergency contraceptive pills, including levonorgestrel contraceptive pills and combined oral contraceptive pills*†

Condition	Category	Clarifications/Evidence/Comments
Personal Characteristics and Reproductive History		
Pregnancy	Not applicable	**Clarification:** Although this method is not indicated for a woman with a known or suspected pregnancy, no harm to the woman, the course of her pregnancy, or the fetus if ECPs are inadvertently used is known to exist.
Breastfeeding	1	
Past ectopic pregnancy	1	
History of bariatric surgery§		
a. Restrictive procedures: decrease storage capacity of the stomach (vertical banded gastroplasty, laparoscopic adjustable gastric band, laparoscopic sleeve gastrectomy)	1	
b. Malabsorptive procedures: decrease absorption of nutrients and calories by shortening the functional length of the small intestine (Roux-en-Y gastric bypass, biliopancreatic diversion)	1	**Comment:** Bariatric surgical procedures involving a malabsorptive component have the potential to decrease oral contraceptive effectiveness, perhaps further decreased by postoperative complications such as long-term diarrhea and/or vomiting. Because of these malabsorptive concerns, an emergency IUD might be more appropriate than ECPs.
Cardiovascular Disease		
History of severe cardiovascular complications§ (ischemic heart disease, cerebrovascular attack, or other thromboembolic conditions)	2	**Comment:** The duration of ECP use is less than that of regular use of COCs or POPs and thus would be expected to have less clinical impact.
Angina pectoris	2	**Comment:** The duration of ECP use is less than that of regular use of COCs or POPs and thus would be expected to have less clinical impact.
Rheumatic Diseases		
Rheumatoid arthritis		
a. On immunosuppressive therapy	1	
b. Not on immunosuppressive therapy	1	
Neurologic Conditions		
Migraine	2	**Comment:** The duration of ECP use is less than that of regular use of COCs or POPs and thus would be expected to have less clinical impact.
Gastrointestinal Conditions		
Inflammatory bowel disease (ulcerative colitis, Crohn disease)	1	
Severe liver disease§ (including jaundice)	2	**Comment:** The duration of ECP use is less than that of regular use of COCs or POPs and thus would be expected to have less clinical impact.
Solid Organ Transplantation		
Solid organ transplantation§		
a. Complicated: graft failure (acute or chronic), rejection, cardiac allograft vasculopathy	1	
b. Uncomplicated	1	

TABLE. (*Continued*) Classifications for emergency contraceptive pills, including levonorgestrel contraceptive pills and combined oral contraceptive pills*†

Condition	Category	Clarifications/Evidence/Comments
Other		
Repeated ECP use	1	**Clarification:** Recurrent ECP use is an indication that the woman requires further counseling about other contraceptive options. Frequently repeated ECP use may be harmful for women with conditions classified as 2, 3, or 4 for CHC or POC use.
Rape	1	**Comment:** Use of ECPs in cases of rape has no restrictions.

* Abbreviations: STI = sexually transmitted infection; HIV = human immunodeficiency virus; ECP, emergency contraceptive pill; IUD = intrauterine device; COC = combined oral contraceptive; POP = progestin-only pill; CHC = combined hormonal contraceptive; POC = progestin-only contraceptive

† ECPs do not protect against STI/HIV. If risk exists for STI/HIV (including during pregnancy or postpartum), the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STIs and HIV transmission.

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

Appendix E

Classifications for Intrauterine Devices

Classifications for intrauterine devices (IUDs) are for the levonorgestrel-releasing (20 μg/24 hours) IUD and the copper-bearing IUD (Box). IUDs do not protect against sexually transmitted infections (STIs) or human immunodeficiency virus (HIV).

BOX. Categories for Classifying Intrauterine Devices

1 = A condition for which there is no restriction for the use of the contraceptive method.
2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.
4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

TABLE. Classifications for intrauterine devices, including the LNG-IUD and the Cu-IUD*†

Condition	Category		Clarifications/Evidence/Comments
	LNG-IUD	Cu-IUD	
Personal Characteristics and Reproductive History			
Pregnancy	4	4	**Clarification:** The IUD is not indicated during pregnancy and should not be used because of the risk for serious pelvic infection and septic spontaneous abortion.
Age			
a. Menarche to <20 yrs	2	2	**Comment:** Concern exists about both the risk for expulsion from nulliparity and for STIs from sexual behaviour in younger age groups.
b. ≥20 yrs	1	1	
Parity			
a. Nulliparous	2	2	**Evidence:** Data conflict about whether IUD use is associated with infertility among nulliparous women, although well-conducted studies suggest no increased risk (*1–9*).
b Parous	1	1	
Postpartum (breastfeeding or nonbreastfeeding women, including post-Cesarean section)			
a. <10 minutes after delivery of the placenta	2	1	**Evidence:** Immediate postpartum Cu-IUD insertion, particularly when insertion occurs immediately after delivery of the placenta, is associated with lower expulsion rates than is delayed postpartum insertion up to 72 hours postpartum; no data exist that examine times >72 hours postpartum. In addition, postplacental placement at the time of Cesarean section has lower expulsion rates than does postplacental vaginal insertions. Insertion complications of perforation and infection are not increased by Cu-IUD placement at any time during the postpartum period (*10–23*). No evidence is available that compares different insertion times for the LNG-IUD.
b. 10 minutes after delivery of the placenta to <4 wks	2	2	
c. ≥4 wks	1	1	
d. Puerperal sepsis	4	4	**Comment:** Insertion of an IUD might substantially worsen the condition.
Postabortion			
a. First trimester	1	1	**Clarification:** IUDs can be inserted immediately after first trimester spontaneous or induced abortion.
b. Second trimester	2	2	**Evidence:** Risk for complications from immediate versus delayed insertion of an IUD after abortion did not differ. Expulsion was greater when an IUD was inserted after a second trimester abortion than when inserted after a first trimester abortion. Safety or expulsion for postabortion insertion of an LNG-IUD did not differ from that of a Cu-IUD (*24–37*).
c. Immediate postseptic abortion	4	4	**Comment:** Insertion of an IUD might substantially worsen the condition.

TABLE. (*Continued*) Classifications for intrauterine devices,*† including the LNG-IUD and the Cu-IUD

Condition	Category		Clarifications/Evidence/Comments
	LNG-IUD	Cu-IUD	
Past ectopic pregnancy	1	1	**Comment:** The absolute risk for ectopic pregnancy is extremely low because of the high effectiveness of IUDs. However, when a woman becomes pregnant during IUD use, the relative likelihood of ectopic pregnancy increases greatly.
History of pelvic surgery (see Postpartum, including post-Cesarean section)	1	1	
Smoking			
a. Age <35 yrs	1	1	
b. Age ≥35 yrs			
i. <15 Cigarettes/day	1	1	
ii. ≥15 Cigarettes/day	1	1	
Obesity			
a. ≥30 kg/m^2 BMI	1	1	
b. Menarche to <18 yrs and ≥30 kg/m^2 BMI	1	1	
History of bariatric surgery§			
a. Restrictive procedures: decrease storage capacity of the stomach (vertical banded gastroplasty, laparoscopic adjustable gastric band, laparoscopic sleeve gastrectomy)	1	1	
b. Malabsorptive procedures: decrease absorption of nutrients and calories by shortening the functional length of the small intestine (Roux-en-Y gastric bypass, biliopancreatic diversion)	1	1	
Cardiovascular Disease			
Multiple risk factors for arterial cardiovascular disease (such as older age, smoking, diabetes, and hypertension)	2	1	
Hypertension			
For all categories of hypertension, classifications are based on the assumption that no other risk factors for cardiovascular disease exist. When multiple risk factors do exist, risk for cardiovascular disease might increase substantially. A single reading of blood pressure level is not sufficient to classify a woman as hypertensive.			
a. Adequately controlled hypertension	1	1	
b. Elevated blood pressure levels (properly taken measurements)			
i. Systolic 140–159 mm Hg or diastolic 90–99 mm Hg	1	1	
ii. Systolic ≥160 mm Hg or diastolic ≥100 mm Hg§	2	1	**Comment:** Theoretical concern exists about the effect of LNG on lipids. Use of Cu-IUDs has no restrictions.
c. Vascular disease	2	1	**Comment:** Theoretical concern exists about the effect of LNG on lipids. Use of Cu-IUDs has no restrictions.
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	1	1	
Deep venous thrombosis (DVT)/ pulmonary embolism (PE)			
a. History of DVT/PE, not on anticoagulant therapy			
i. Higher risk for recurrent DVT/PE (≥1 risk factors)	2	1	
• History of estrogen-associated DVT/PE			
• Pregnancy-associated DVT/PE			
• Idiopathic DVT/PE			
• Known thrombophilia, including antiphospholipid syndrome			
• Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer			
• History of recurrent DVT/PE			
ii. Lower risk for recurrent DVT/PE (no risk factors)	2	1	

TABLE. (*Continued*) Classifications for intrauterine devices,*† including the LNG-IUD and the Cu-IUD

Condition	Category		Clarifications/Evidence/Comments
	LNG-IUD	Cu-IUD	
b. Acute DVT/PE	2	2	**Evidence:** No direct evidence exists on the use of POCs among women with acute DVT/PE. Although findings on the risk for venous thrombosis with the use of POCs in otherwise healthy women are inconsistent, any small increased risk is substantially less than that with COCs (*38–40*).
c. DVT/PE and established on anticoagulant therapy for at least 3 mos			**Evidence:** No direct evidence exists on the use of POCs among women with acute DVT/PE. Although findings on the risk for venous thrombosis with the use of POCs in otherwise healthy women are inconsistent, any small increased risk is substantially less than that with COCs (*38–40*). **Evidence:** Limited evidence indicates that insertion of the LNG-IUD does not pose major bleeding risks in women on chronic anticoagulant therapy. (*41–44*) **Comment:** The LNG-IUD might be a useful treatment for menorrhagia in women on long-term chronic anticoagulation therapy.
i. Higher risk for recurrent DVT/PE (≥1 risk factors) • Known thrombophilia, including antiphospholipid syndrome • Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding nonmelanoma skin cancer • History of recurrent DVT/PE	2	2	
ii. Lower risk for recurrent DVT/PE (no risk factors)	2	2	
d. Family history (first-degree relatives)	1	1	
e. Major surgery			
i. With prolonged immobilization	2	1	
ii. Without prolonged immobilization	1	1	
f. Minor surgery without immobilization	1	1	
Known thrombogenic mutations§ (e.g., factor V Leiden; prothrombin mutation; protein S, protein C, and antithrombin deficiencies)	2	1	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening.
Superficial venous thrombosis			
a. Varicose veins	1	1	
b. Superficial thrombophlebitis	1	1	
Current and history of ischemic heart disease§	Initiation: 2 / Continuation: 3	1	**Comment:** Theoretical concern exists about the effect of LNG on lipids. Use of Cu-IUDs has no restrictions.
Stroke§ (history of cerebrovascular accident)	2	1	**Comment:** Theoretical concern exists about the effect of LNG on lipids. Use of Cu-IUDs has no restrictions.
Known hyperlipidemias	2	1	**Clarification:** Routine screening is not appropriate because of the rarity of the condition and the high cost of screening.
Valvular heart disease			
a. Uncomplicated	1	1	**Comment**: According to the American Heart Association, administration of prophylactic antibiotics solely to prevent endocarditis is not recommended for patients who undergo genitourinary tract procedures, including insertion or removal of IUDs (*45*).
b. Complicated§ (pulmonary hypertension, risk for atrial fibrillation, history of subacute bacterial endocarditis)	1	1	**Comment**: According to the American Heart Association, administration of prophylactic antibiotics solely to prevent endocarditis is not recommended for patients who undergo genitourinary tract procedures, including insertion or removal of IUDs *(45)*.
Peripartum cardiomyopathy§			
a. Normal or mildly impaired cardiac function (New York Heart Association Functional Class I or II: patients with no limitation of activities or patients with slight, mild limitation of activity) (*46*)			**Evidence:** No direct evidence exists on the safety of IUDs among women with peripartum cardiomyopathy. Limited indirect evidence from noncomparative studies did not demonstrate any cases of arrhythmia or infective endocarditis in women with cardiac disease who used IUDs (*47,48*).
i. <6 mos	2	2	**Comment:** IUD insertion might induce cardiac arrhythmias in healthy women; women with peripartum cardiomyopathy have a high incidence of cardiac arrhythmias.
ii. ≥6 mos	2	2	

TABLE. (*Continued*) Classifications for intrauterine devices,*† including the LNG-IUD and the Cu-IUD

Condition	Category: LNG-IUD	Category: Cu-IUD	Clarifications/Evidence/Comments
b. Moderately or severely impaired cardiac function (New York Heart Association Functional Class III or IV: patients with marked limitation of activity or patients who should be at complete rest) (*46*)	2	2	**Evidence:** There is no direct evidence on the safety of IUDs among women with peripartum cardiomyopathy. Limited indirect evidence from noncomparative studies did not demonstrate any cases of arrhythmia or infective endocarditis in women with cardiac disease who used IUDs (*47,48*). **Comment:** IUD insertion might induce cardiac arrhythmias in healthy women; women with peripartum cardiomyopathy have a high incidence of cardiac arrhythmias.
Rheumatic Diseases			
Systemic lupus erythematosus (SLE)§ Persons with SLE are at increased risk for ischemic heart disease, stroke, and VTE. Categories assigned to such conditions in the MEC should be the same for women with SLE who have these conditions. For all categories of SLE, classifications are based on the assumption that no other risk factors for cardiovascular disease are present; these classifications must be modified in the presence of such risk factors. Many women with SLE can be considered good candidates for most contraceptive methods, including hormonal contraceptives (*43,49–66*).			
		Initiation / Continuation	
a. Positive (or unknown) antiphospholipid antibodies	3	1 / 1	**Evidence:** Antiphospholipid antibodies are associated with a higher risk for both arterial and venous thrombosis (*67,68*).
b. Severe thrombocytopenia	2	3 / 2	**Clarification:** Severe thrombocytopenia increases the risk for bleeding. The category should be assessed according to the severity of thrombocytopenia and its clinical manifestations. In women with very severe thrombocytopenia who are at risk for spontaneous bleeding, consultation with a specialist and certain pretreatments might be warranted. **Evidence:** The LNG-IUD might be a useful treatment for menorrhagia in women with severe thrombocytopenia (*43*).
c. Immunosuppressive treatment	2	2 / 1	
d. None of the above	2	1 / 1	
Rheumatoid arthritis	Initiation / Continuation	Initiation / Continuation	
a. On immunosuppressive therapy	2 / 1	2 / 1	
b. Not on immunosuppressive therapy	1	1	
Neurologic Conditions			
Headaches	Initiation / Continuation		**Clarification:** Any new headaches or marked changes in headaches should be evaluated.
a. Non-migrainous (mild or severe)	1 / 1	1	
b. Migraine			
i. Without aura			**Comment:** Aura is a specific focal neurologic symptom. For more information about this and other diagnostic criteria, see: Headache Classification Subcommittee of the International Headache Society. The international classification of headache disorders. 2nd ed. Cephalalgia 2004;24(Suppl 1):1– 150. Available from http://www.i-h-s.org/upload/ct_clas/ihc_II_main_no_print.pdf.
• Age <35 yrs	2 / 2	1	
• Age ≥35 yrs	2 / 2	1	
ii. With aura, at any age	2 / 3	1	
Epilepsy§	1	1	
Depressive Disorders			
Depressive disorders	1	1	**Clarification**: The classification is based on data for women with selected depressive disorders. No data were available on bipolar disorder or postpartum depression. Drug interactions potentially can occur between certain antidepressant medications and hormonal contraceptives.
Reproductive Tract Infections and Disorders			
Vaginal bleeding patterns	Initiation / Continuation		
a. Irregular pattern without heavy bleeding	1 / 1	1	
b. Heavy or prolonged bleeding (includes regular and irregular patterns)	1 / 2	2	**Clarification:** Unusually heavy bleeding should raise suspicion of a serious underlying condition. **Evidence:** Evidence from studies examining the treatment effects of the LNG-IUD among women with heavy or prolonged bleeding reported no increase in adverse effects and found the LNG-IUD to be beneficial in treating menorrhagia (*69–76*).
Unexplained vaginal bleeding (suspicion for serious condition)	Initiation / Continuation	Initiation / Continuation	**Clarification:** If pregnancy or an underlying pathological condition (such as pelvic malignancy) is suspected, it must be evaluated and the category adjusted after evaluation. The IUD does not need to be removed before evaluation.
Before evaluation	4 / 2	4 / 2	

TABLE. (*Continued*) Classifications for intrauterine devices,*† including the LNG-IUD and the Cu-IUD

Condition	Category				Clarifications/Evidence/Comments
	LNG-IUD		Cu-IUD		
Endometriosis	1		2		**Evidence:** LNG-IUD use among women with endometriosis decreased dysmenorrhea, pelvic pain, and dyspareunia (*77–81*).
Benign ovarian tumors (including cysts)	1		1		
Severe dysmenorrhea	1		2		**Comment:** Dysmenorrhea might intensify with Cu-IUD use. LNG-IUD use has been associated with reduction of dysmenorrhea.
Gestational trophoblastic disease					
a. Decreasing or undetectable β–hCG levels	3		3		**Evidence:** Limited evidence suggests that women using an IUD after uterine evacuation for a molar pregnancy are not at greater risk for postmolar trophoblastic disease than are women using other methods of contraception (*82–84*).
b. Persistently elevated β-hCG levels or malignant disease§	4		4		**Evidence:** Limited evidence suggests that women using an IUD after uterine evacuation for a molar pregnancy are not at greater risk for postmolar trophoblastic disease than are women using other methods of contraception (*82–84*)
Cervical ectropion	1		1		
Cervical intraepithelial neoplasia	2		1		**Comment:** Theoretical concern exists that LNG-IUDs might enhance progression of cervical intraepithelial neoplasia.
Cervical cancer (awaiting treatment)	Initiation 4	Continuation 2	Initiation 4	Continuation 2	**Comment:** Concern exists about the increased risk for infection and bleeding at insertion. The IUD most likely will need to be removed at the time of treatment, but until then, the woman is at risk for pregnancy.
Breast disease					
a. Undiagnosed mass	2		1		
b. Benign breast disease	1		1		
c. Family history of cancer	1		1		
d. Breast cancer§					**Comment:** Breast cancer is a hormonally sensitive tumor. Concerns about progression of the disease might be less with LNG-IUDs than with COCs or higher-dose POCs.
i. Current	4		1		
ii. Past and no evidence of current disease for 5 yrs	3		1		
Endometrial hyperplasia	1		1		**Evidence:** Among women with endometrial hyperplasia, no adverse health events occurred with LNG-IUD use; most women experienced disease regression (*85–93*).
Endometrial cancer§	Initiation 4	Continuation 2	Initiation 4	Continuation 2	**Comment:** Concern exists about the increased risk for infection, perforation, and bleeding at insertion. The IUD most likely will need to be removed at the time of treatment, but until then, the woman is at risk for pregnancy.
Ovarian cancer§	1		1		**Comment:** Women with ovarian cancer who undergo fertility sparing treatment and need contraception may use an IUD.
Uterine fibroids	2		2		**Evidence:** Among women with uterine fibroids using an LNG-IUD, most experienced improvements in serum levels of hemoglobin, hematocrit, and ferritin (*73,94–100*) and menstrual blood loss (*73,75,94–101*). Rates of LNG-IUD expulsion were higher in women with uterine fibroids (11%) than in women without fibroids (0%–3%); these findings were not statistically significant or significance testing was not conducted (*75,101*). Rates of expulsion from noncomparative studies ranged from 0%–20% (*94,96–100*). **Comment:** Women with heavy or prolonged bleeding should be assigned the category for that condition.
Anatomical abnormalities					
a. Distorted uterine cavity (any congenital or acquired uterine abnormality distorting the uterine cavity in a manner that is incompatible with IUD insertion)	4		4		**Comment:** An anatomic abnormality that distorts the uterine cavity might preclude proper IUD placement.
b. Other abnormalities (including cervical stenosis or cervical lacerations) not distorting the uterine cavity or interfering with IUD insertion	2		2		

TABLE. (*Continued*) Classifications for intrauterine devices,*† including the LNG-IUD and the Cu-IUD

Condition	Category				Clarifications/Evidence/Comments
	LNG-IUD		Cu-IUD		
Pelvic inflammatory disease (PID)	Initiation	Continuation	Initiation	Continuation	
a. Past PID (assuming no known current risk factors for STIs)					**Comment:** IUDs do not protect against STI/HIV/PID. In women at low risk for STIs, IUD insertion poses little risk for PID. Current risk for STIs and desire for future pregnancy are relevant considerations.
i. With subsequent pregnancy	1	1	1	1	
ii. Without subsequent pregnancy	2	2	2	2	
b. Current PID	4	2	4	2	**Clarification for continuation:** Treat the PID using appropriate antibiotics. The IUD usually does not need to be removed if the woman wishes to continue using it. Continued use of an IUD depends on the woman's informed choice and her current risk factors for STIs and PID. **Evidence:** Among IUD users treated for PID, clinical course did not differ regardless of whether the IUD was removed or left in place (*102–104*).
STIs	Initiation	Continuation	Initiation	Continuation	
a. Current purulent cervicitis or chlamydial infection or gonorrhea	4	2	4	2	**Clarification for continuation:** Treat the STI using appropriate antibiotics. The IUD usually does not need to be removed if the woman wishes to continue using it. Continued use of an IUD depends on the woman's informed choice and her current risk factors for STIs and PID. **Evidence:** No evidence exists about whether IUD insertion among women with STIs increases the risk for PID over that of women with no IUD insertion. Among women who had an IUD inserted, the absolute risk for subsequent PID was low among women with STI at the time of insertion but greater than among women with no STI at the time of IUD insertion (*105–111*).
b. Other STIs (excluding HIV and hepatitis)	2	2	2	2	
c. Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	2	2	2	2	
d. Increased risk for STIs	2/3	2	2/3	2	**Clarification for initiation**: If a woman has a very high individual likelihood of exposure to gonorrhea or chlamydial infection, the condition is a Category 3. **Evidence:** Using an algorithm to classify STI risk status among IUD users, 1 study reported that 11% of women at high risk for STIs experienced IUD-related complications compared with 5% of those not classified as high risk (*107*).
HIV/AIDS					
High risk for HIV	Initiation	Continuation	Initiation	Continuation	
	2	2	2	2	**Evidence:** Among women at risk for HIV, Cu-IUD use did not increase risk for HIV acquisition (*112–122*).
HIV infection§	2	2	2	2	**Evidence:** Among IUD users, limited evidence shows no higher risk for overall complications or for infectious complications in HIV-infected than in HIV-uninfected women. IUD use did not adversely affect progression of HIV when compared with hormonal contraceptive use among HIV-infected women. Furthermore, IUD use among HIV-infected women was not associated with increased risk for transmission to sex partners (*112,123–130*).
AIDS§	3	2	3	2	**Clarification for continuation:** IUD users with AIDS should be closely monitored for pelvic infection.
Clinically well on ARV therapy	2	2	2	2	
Other Infections					
Schistosomiasis					
a. Uncomplicated		1		1	
b. Fibrosis of the liver§ (if severe, see cirrhosis)		1		1	
Tuberculosis§	Initiation	Continuation	Initiation	Continuation	
a. Nonpelvic	1	1	1	1	
b. Pelvic	4	3	4	3	**Comment:** Insertion of an IUD may substantially worsen the condition.
Malaria		1		1	

TABLE. (*Continued*) Classifications for intrauterine devices,*† including the LNG-IUD and the Cu-IUD

Condition	Category		Clarifications/Evidence/Comments
	LNG-IUD	Cu-IUD	
Endocrine Conditions			
Diabetes			
a. History of gestational disease	1	1	
b. Nonvascular disease			**Evidence:** Limited evidence on the use of the LNG-IUD among women with insulin-dependent or noninsulin-dependent diabetes suggests that these methods have little effect on short-term or long-term diabetes control (e.g., glycosylated hemoglobin levels), hemostatic markers, or lipid profile (*131,132*).
i. Noninsulin-dependent	2	1	
ii. Insulin-dependent§	2	1	
c. Nephropathy/retinopathy/neuropathy§	2	1	
d. Other vascular disease or diabetes of >20 yrs' duration§	2	1	
Thyroid disorders			
a. Simple goiter	1	1	
b. Hyperthyroid	1	1	
c. Hypothyroid	1	1	
Gastrointestinal Conditions			
Inflammatory bowel disease (IBD) (ulcerative colitis, Crohn disease)	1	1	**Evidence:** Although two case reports described three women with IBD who experienced exacerbation of disease 5 days–25 months after LNG-IUD insertion (*133,134*), no comparative studies have examined the safety of IUD use among women with IBD.
Gallbladder disease			
a. Symptomatic			
i. Treated by cholecystectomy	2	1	
ii. Medically treated	2	1	
iii. Current	2	1	
b. Asymptomatic	2	1	
History of cholestasis			
a. Pregnancy-related	1	1	
b. Past COC-related	2	1	**Comment:** Concern exists that history of COC-related cholestasis might predict subsequent cholestasis with LNG use. Whether risk exists with use of LNG-IUD is unclear.
Viral hepatitis			
a. Acute or flare	1	1	
b. Carrier	1	1	
c. Chronic	1	1	
Cirrhosis			
a. Mild (compensated)	1	1	
b. Severe§ (decompensated)	3	1	
Liver tumors			
a. Benign	2	1	
i. Focal nodular hyperplasia			
ii. Hepatocellular adenoma§	3	1	**Comment:** No evidence is available about hormonal contraceptive use in women with hepatocellular adenoma. COC use in healthy women is associated with development and growth of hepatocellular adenoma; whether other hormonal contraceptives have similar effects is not known.
b. Malignant§ (hepatoma)	3	1	
Anemias			
Thalassemia	1	2	**Comment:** Concern exists about an increased risk for blood loss with Cu-IUDs.
Sickle cell disease§	1	2	**Comment:** Concern exists about an increased risk for blood loss with Cu-IUDs.
Iron deficiency anemia	1	2	**Comment:** Concern exists about an increased risk for blood loss with Cu-IUDs.
Solid Organ Transplantation			
Solid organ transplantation§	Initiation / Continuation	Initiation / Continuation	**Evidence:** No comparative studies have examined IUD use among transplant patients. Four case reports of transplant patients using IUDs provided inconsistent results, including beneficial effects and contraceptive failures (*135–138*).
a. Complicated: graft failure (acute or chronic), rejection, cardiac allograft vasculopathy	3 / 2	3 / 2	
b. Uncomplicated	2 / 2	2 / 2	

TABLE. (*Continued*) Classifications for intrauterine devices,*† including the LNG-IUD and the Cu-IUD

Condition	Category				Clarifications/Evidence/Comments
	LNG-IUD		Cu-IUD		
Drug Interactions					
Antiretroviral (ARV) therapy	Initiation	Continuation	Initiation	Continuation	**Clarification:** No known interaction exists between ARV therapy and IUD use. However, AIDS as a condition is classified as Category 3 for insertion and Category 2 for continuation unless the woman is clinically well on ARV therapy, in which case, both insertion and continuation are classified as Category 2 (see AIDS condition).
a. Nucleoside reverse transcriptase inhibitors (NRTIs)	2/3	2	2/3	2	
b. Non-nucleoside reverse transcriptase inhibitors (NNRTIs)	2/3	2	2/3	2	
c. Ritonavir-boosted protease inhibitors	2/3	2	2/3	2	
Anticonvulsant therapy					
a. Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)		1		1	**Evidence:** Limited evidence suggests use of certain anticonvulsants does not interfere with the contraceptive effectiveness of the LNG-IUD (*139*).
b Lamotrigine		1		1	**Evidence:** No drug interactions have been reported among epileptic women taking lamotrigine and using the LNG-IUD (*140*).
Antimicrobial therapy					
a. Broad-spectrum antibiotics		1		1	
b. Antifungals		1		1	
c. Antiparasitics		1		1	
d. Rifampicin or rifabutin therapy		1		1	**Evidence:** One cross-sectional survey found that rifabutin had no impact on the effectiveness of the LNG-IUD (*139*).

* Abbreviations: LNG-IUD = levonorgestrel-releasing intrauterine device; Cu-IUD = copper IUD; STI = sexually transmitted infection; HIV = human immunodeficiency virus; BMI = body mass index; DVT = deep venous thrombosis; PE = pulmonary embolism; POC = progestin-only contraceptive; COC = combined oral contraceptive; SLE = systemic lupus erythematosus; MEC = Medical Eligibility Criteria; hCG = human chorionic gonadotropin; PID = pelvic inflammatory disease; AIDS = acquired immunodeficiency syndrome; ARV = antiretroviral; IBD = inflammatory bowel disease; NRTI = nucleoside reverse transcriptase inhibitor; NNRTI = non-nucleoside reverse transcriptase inhibitor.

† IUDs do not protect against STI/HIV. If risk exists for STI/HIV (including during pregnancy or postpartum), the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STIs and HIV transmission

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

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Appendix F

Classifications for Copper Intrauterine Devices for Emergency Contraception

A copper IUD (Cu-IUD) can be used within 5 days of unprotected intercourse as an emergency contraceptive. However, when the time of ovulation can be estimated, the Cu-IUD can be inserted beyond 5 days after intercourse, if necessary, as long as the insertion does not occur >5 days after ovulation.

The eligibility criteria for interval Cu-IUD insertion also apply for the insertion of Cu-IUDs as emergency contraception (Box). Cu-IUDs for emergency contraception do not protect against sexually transmitted infections (STIs) or human immunodeficiency virus (HIV).

BOX. Categories for Classifying Cu-IUDs as Emergency Contraception

1 = A condition for which there is no restriction for the use of the contraceptive method.
2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.
4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

TABLE. Classifications for copper intrauterine devices for emergency contraception*†

Condition	Category	Clarifications/Evidence/Comments
Pregnancy	4	**Clarification**: IUD use is not indicated during pregnancy and should not be used because of the risk for serious pelvic infection and septic spontaneous abortion.
Rape		
a. High risk for STI	3	**Comment:** IUDs do not protect against STI/HIV or PID. Among women with chlamydial infection or gonorrhea, the potential increased risk for PID with IUD insertion should be avoided. The concern is less for other STIs.
b. Low risk for STI	1	

* Abbreviations: IUD = intrauterine device; Cu-IUD = copper IUD; STI = sexually transmitted infection; HIV = human immunodeficiency virus; PID = pelvic inflammatory disease

† Cu-IUDs for emergency contraception do not protect against STI/HIV. If risk exists for STI/HIV (including during pregnancy or postpartum), the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STIs and HIV transmission.

Appendix G
Classifications for Barrier Methods

Classifications for barrier contraceptive methods include those for condoms, which include male latex condoms, male polyurethane condoms, and female condoms; spermicides; and diaphragm with spermicide or cervical cap (Box). Consistent and correct use of the male latex condom reduces the risk for STI/HIV transmission.

Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use them consistently and correctly because of the relatively higher typical-use failure rates of these methods.

BOX. Categories for Classifying Barrier Methods

1 = A condition for which there is no restriction for the use of the contraceptive method.
2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.
4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

TABLE. Classifications for barrier methods,*† including condoms, spermicides, and diaphragms/caps

Condition	Category: Condom	Category: Spermicide	Category: Diaphragm/cap	Clarifications/Evidence/Comments
Personal Characteristics and Reproductive History				
Pregnancy	Not applicable	Not applicable	Not applicable	**Clarification:** None of these methods are relevant for contraception during known pregnancy. However, for women who remain at risk for STI/HIV during pregnancy, the correct and consistent use of condoms is recommended.
Age				
a. Menarche to <40 yrs	1	1	1	
b. ≥40 yrs	1	1	1	
Parity				
a. Nulliparous	1	1	1	
b. Parous	1	1	2	**Clarification:** Risk for cervical cap failure is higher in parous women than in nulliparous women.
Postpartum				
a. <6 wks postpartum	1	1	Not applicable	**Clarification:** Diaphragm and cap are unsuitable until uterine involution is complete.
b. ≥6 wks postpartum	1	1	1	
Postabortion				
a. First trimester	1	1	1	
b. Second trimester	1	1	1	**Clarification:** Diaphragm and cap are unsuitable until 6 weeks after second trimester abortion.
c. Immediate postseptic abortion	1	1	1	
Past ectopic pregnancy	1	1	1	
History of pelvic surgery	1	1	1	
Smoking				
a. Age <35 yrs	1	1	1	
b. Age ≥35 yrs				
i. <15 Cigarettes/day	1	1	1	
ii. ≥15 Cigarettes/day	1	1	1	
Obesity				**Comment:** Severe obesity might make diaphragm and cap placement difficult.
a. ≥30 kg/m^2 BMI	1	1	1	
b. Menarche to <18 yrs and ≥30 kg/m^2 BMI	1	1	1	
History of bariatric surgery§				
a. Restrictive procedures: decrease storage capacity of the stomach (vertical banded gastroplasty, laparoscopic adjustable gastric band, laparoscopic sleeve gastrectomy)	1	1	1	

TABLE. (*Continued*) Classifications for barrier methods,*† including condoms, spermicides, and diaphragms/caps

Condition	Category: Condom	Category: Spermicide	Category: Diaphragm/cap	Clarifications/Evidence/Comments
b. Malabsorptive procedures: decrease absorption of nutrients and calories by shortening the functional length of the small intestine (Roux-en-Y gastric bypass, biliopancreatic diversion)	1	1	1	
Cardiovascular Disease				
Multiple risk factors for arterial cardiovascular disease (such as older age, smoking, diabetes, and hypertension)	1	1	1	
Hypertension				
a. Adequately controlled hypertension	1	1	1	
b. Elevated blood pressure levels (properly taken measurements)				
i. Systolic 140–159 mm Hg or diastolic 90–99 mm Hg	1	1	1	
ii. Systolic ≥160 mm Hg or diastolic ≥100 mm Hg§	1	1	1	
c. Vascular disease	1	1	1	
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	1	1	1	
Deep venous thrombosis (DVT)/pulmonary embolism (PE)				
a. History of DVT/PE, not on anticoagulant therapy				
i. Higher risk for recurrent DVT/PE (≥1 risk factors)	1	1	1	
• History of estrogen-associated DVT/PE				
• Pregnancy-associated DVT/PE				
• Idiopathic DVT/PE				
• Known thrombophilia, including antiphospholipid syndrome				
• Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer				
• History of recurrent DVT/PE				
ii. Lower risk for recurrent DVT/PE (no risk factors)	1	1	1	
b. Acute DVT/PE	1	1	1	
c. DVT/PE and established on anticoagulant therapy for at least 3 mos				
i. Higher risk for recurrent DVT/PE (≥1 risk factors)	1	1	1	
• Known thrombophilia, including antiphospholipid syndrome				
• Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer				
• History of recurrent DVT/PE				
ii. Lower risk for recurrent DVT/PE (no risk factors)	1	1	1	
d. Family history (first-degree relatives)	1	1	1	
e. Major surgery				
i. With prolonged immobilization	1	1	1	
ii. Without prolonged immobilization	1	1	1	
f. Minor surgery without immobilization	1	1	1	
Known thrombogenic mutations§ (e.g., factor V Leiden; prothrombin mutation; protein S, protein C, and antithrombin deficiencies)	1	1	1	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening.

TABLE. (*Continued*) Classifications for barrier methods,*† including condoms, spermicides, and diaphragms/caps

Condition	Category			Clarifications/Evidence/Comments
	Condom	Spermicide	Diaphragm/ cap	
Superficial venous thrombosis				
a. Varicose veins	1	1	1	
b. Superficial thrombophlebitis	1	1	1	
Current and history of ischemic heart disease§	1	1	1	
Stroke§ (history of cerebrovascular accident)	1	1	1	
Known hyperlipidemias	1	1	1	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening.
Valvular heart disease				
a. Uncomplicated	1	1	1	
b. Complicated§ (pulmonary hypertension, risk for atrial fibrillation, history of subacute bacterial endocarditis)	1	1	2	
Peripartum cardiomyopathy§				
a. Normal or mildly impaired cardiac function (New York Heart Association Functional Class I or II: patients with no limitation of activities or patients with slight, mild limitation of activity) (*1*)				
i. <6 mos	1	1	1	
ii. ≥6 mos	1	1	1	
b. Moderately or severely impaired cardiac function (New York Heart Association Functional Class III or IV: patients with marked limitation of activity or patients who should be at complete rest) (*1*)	1	1	1	
Rheumatic Diseases				
Systemic lupus erythematosus§				
a. Positive (or unknown) antiphospholipid antibodies	1	1	1	
b. Severe thrombocytopenia	1	1	1	
c. Immunosuppressive treatment	1	1	1	
d. None of the above	1	1	1	
Rheumatoid arthritis				
a. On immunosuppressive therapy	1	1	1	
b. Not on immunosuppressive therapy	1	1	1	
Neurologic Conditions				
Headaches				
a. Non-migrainous (mild or severe)	1	1	1	
b. Migraine				
i. Without aura				
• Age <35 yrs	1	1	1	
• Age ≥35 yrs	1	1	1	
ii. With aura, at any age	1	1	1	
Epilepsy§	1	1	1	
Depressive Disorders				
Depressive disorders	1	1	1	
Reproductive Tract Infections and Disorders				
Unexplained vaginal bleeding (suspicious for serious condition) Before evaluation	1	1	1	**Clarification:** If pregnancy or an underlying pathological condition (such as pelvic malignancy) is suspected, it must be evaluated and the category adjusted after evaluation.
Endometriosis	1	1	1	
Benign ovarian tumors (including cysts)	1	1	1	
Severe dysmenorrhea	1	1	1	

TABLE. (*Continued*) Classifications for barrier methods,*† including condoms, spermicides, and diaphragms/caps

Condition	Category: Condom	Category: Spermicide	Category: Diaphragm/cap	Clarifications/Evidence/Comments
Gestational trophoblastic disease				
a. Decreasing or undetectable β–hCG levels	1	1	1	
b. Persistently elevated β-hCG levels or malignant disease§	1	1	1	
Cervical ectropion	1	1	1	
Cervical intraepithelial neoplasia	1	1	1	**Clarification: The cap should not be used.** Diaphragm use has no restrictions.
Cervical cancer (awaiting treatment)	1	2	1	**Clarification: The cap should not be used.** Diaphragm use has no restrictions. **Comment:** Repeated and high-dose use of nonoxynol-9 can cause vaginal and cervical irritation or abrasions.
Breast disease				
a. Undiagnosed mass	1	1	1	
b. Benign breast disease	1	1	1	
c. Family history of cancer	1	1	1	
d. Breast cancer§				
i. Current	1	1	1	
ii. Past and no evidence of current disease for 5 yrs	1	1	1	
Endometrial hyperplasia	1	1	1	
Endometrial cancer§	1	1	1	
Ovarian cancer§	1	1	1	
Uterine fibroids	1	1	1	
Anatomical abnormalities	1	1	Not applicable	**Clarification:** The diaphragm cannot be used in certain cases of prolapse. Cap use is not appropriate for a woman with markedly distorted cervical anatomy.
Pelvic inflammatory disease (PID)				
a. Past PID (assuming no current risk factors of STIs)				
i. With subsequent pregnancy	1	1	1	
ii. Without subsequent pregnancy	1	1	1	
b. Current PID	1	1	1	
STIs				
a. Current purulent cervicitis or chlamydial infection or gonorrhea	1	1	1	
b. Other STIs (excluding HIV and hepatitis)	1	1	1	
c. Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	1	1	1	
d. Increased risk for STIs	1	1	1	
HIV/AIDS				
High risk for HIV	1	4	4	**Evidence:** Repeated and high-dose use of the spermicide nonoxynol-9 was associated with increased risk for genital lesions, which might increase the risk for HIV infection (*2*). **Comment:** Diaphragm use is assigned Category 4 because of concerns about the spermicide, not the diaphragm.
HIV infection§	1	3	3	**Comment:** Use of spermicides and/or diaphragms (with spermicide) can disrupt the cervical mucosa, which may increase viral shedding and HIV transmission to uninfected sex partners.
AIDS§	1	3	3	**Comment:** Use of spermicides and/or diaphragms (with spermicide) can disrupt the cervical mucosa, which may increase viral shedding and HIV transmission to uninfected sex partners
Other Infections				
Schistosomiasis				
a. Uncomplicated	1	1	1	
b. Fibrosis of liver§	1	1	1	
Tuberculosis§				
a. Nonpelvic	1	1	1	
b. Pelvic	1	1	1	

TABLE. (*Continued*) Classifications for barrier methods,*† including condoms, spermicides, and diaphragms/caps

Condition	Category			Clarifications/Evidence/Comments
	Condom	Spermicide	Diaphragm/ cap	
Malaria	1	1	1	
History of toxic shock syndrome	1	1	3	**Comment:** Toxic shock syndrome has been reported in association with contraceptive sponge and diaphragm use.
Urinary tract infection	1	1	2	**Comment:** Use of diaphragms and spermicides might increase risk for urinary tract infection.
Endocrine Conditions				
Diabetes				
a. History of gestational disease	1	1	1	
b. Nonvascular disease				
i. Noninsulin-dependent	1	1	1	
ii. Insulin-dependent§	1	1	1	
c. Nephropathy/retinopathy/neuropathy§	1	1	1	
d. Other vascular disease or diabetes of >20 yrs' duration§	1	1	1	
Thyroid disorders				
a. Simple goiter	1	1	1	
b. Hyperthyroid	1	1	1	
c. Hypothyroid	1	1	1	
Gastrointestinal Conditions				
Inflammatory bowel disease (ulcerative colitis, Crohn disease)	1	1	1	
Gallbladder disease				
a. Symptomatic				
i. Treated by cholecystectomy	1	1	1	
ii. Medically treated	1	1	1	
iii. Current	1	1	1	
b. Asymptomatic	1	1	1	
History of cholestasis				
a. Pregnancy-related	1	1	1	
b. Past COC-related	1	1	1	
Viral hepatitis				
a. Acute or flare	1	1	1	
b. Carrier	1	1	1	
c. Chronic	1	1	1	
Cirrhosis				
a. Mild (compensated)	1	1	1	
b. Severe§ (decompensated)	1	1	1	
Liver tumors				
a. Benign				
i. Focal nodular hyperplasia	1	1	1	
ii. Hepatocellular adenoma§	1	1	1	
b. Malignant§ (hepatoma)	1	1	1	
Anemias				
Thalassemia	1	1	1	
Sickle cell disease§	1	1	1	
Iron deficiency anemia	1	1	1	
Solid Organ Transplantation				
Solid organ transplantation§				
a. Complicated: graft failure (acute or chronic), rejection, cardiac allograft vasculopathy	1	1	1	
b. Uncomplicated	1	1	1	

TABLE. (*Continued*) Classifications for barrier methods,*† including condoms, spermicides, and diaphragms/caps

Condition	Category: Condom	Category: Spermicide	Category: Diaphragm/cap	Clarifications/Evidence/Comments
Drug Interactions				
Antiretroviral (ARV) therapy				**Clarification:** No drug interaction between ARV therapy and barrier method use is known. However, HIV infection and AIDS are classified as Category 3 for spermicides and diaphragms (see HIV/AIDS condition above).
a. Nucleoside reverse transcriptase inhibitors (NRTIs)	1	3	3	
b. Non-nucleoside reverse transcriptase inhibitors (NNRTIs)	1	3	3	
c. Ritonavir-boosted protease inhibitors	1	3	3	
Anticonvulsant therapy				
a. Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	1	1	1	
b. Lamotrigine	1	1	1	
Antimicrobial therapy				
a. Broad-spectrum antibiotics	1	1	1	
b. Antifungals	1	1	1	
c. Antiparasitics	1	1	1	
d. Rifampicin or rifabutin therapy	1	1	1	
Allergy to latex	3	1	3	**Clarification:** The condition of allergy to latex does not apply to plastic condoms/diaphragms.

* Abbreviations: STI = sexually transmitted infection; HIV = human immunodeficiency virus; BMI, body mass index; DVT = deep venous thrombosis; PE = pulmonary embolism; ARV = antiretroviral; hCG = human chorionic gonadotropin; PID = pelvic inflammatory disease; AIDS = acquired immunodeficiency syndrome; COC = combined oral contraceptive; NRTI = nucleoside reverse transcriptase inhibitor; NNRTI = non-nucleoside reverse transcriptase inhibitor.

† If risk exists for STI/HIV (including during pregnancy or postpartum), the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STIs and HIV transmission. Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use them consistently and correctly because of the relatively higher typical-use failure rates of these methods.

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

References

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Appendix H
Classifications for Fertility Awareness–Based Methods

Fertility awareness–based (FAB) methods of family planning involve identifying the fertile days of the menstrual cycle, whether by observing fertility signs such as cervical secretions and basal body temperature or by monitoring cycle days (Box). FAB methods can be used in combination with abstinence or barrier methods during the fertile time. If barrier methods are used, refer to Appendix G.

No medical conditions become worse because of use of FAB methods. In general, FAB methods can be used without concern for health effects to persons who choose them. However, a number of conditions make their use more complex. The existence of these conditions suggests that 1) use of these methods should be delayed until the condition is corrected or resolved or 2) persons using FAB methods will require special counseling, and a more highly trained provider is generally necessary to ensure correct use.

Women with conditions that make pregnancy an unacceptable risk should be advised that FAB methods might not be appropriate for them because of the relatively higher typical-use failure rates of these methods. FAB methods do not protect against sexually transmitted infections (STIs) or human immunodeficiency virus (HIV).

Box. Definitions for terms associated with fertility awareness–based methods

- **Symptoms-based methods**: FAB methods based on observation of fertility signs (e.g., cervical secretions, basal body temperature) such as the Cervical Mucus Method, the Symptothermal Method, and the TwoDay Method.
- **Calendar-based methods**: FAB methods based on calendar calculations such as the Calendar Rhythm Method and the Standard Days Method.
- **Acccept (A)**: There is no medical reason to deny the particular FAB method to a woman in this circumstance.
- **Caution (C)**: The method is normally provided in a routine setting but with extra preparation and precautions. For FAB methods, this usually means that special counselling might be needed to ensure correct use of the method by a woman in this circumstance.
- **Delay (D)**: Use of this method should be delayed until the condition is evaluated or corrected. Alternative temporary methods of contraception should be offered.

TABLE. Fertility awareness–based methods,*† including symptoms-based and calendar-based methods

Condition	Category: Symptom-based method	Category: Calendar-based method	Clarifications/Evidence/Comments
Personal Characteristics and Reproductive History			
Pregnancy	Not applicable		**Clarification:** FAB methods are not relevant during pregnancy.
Life stage			**Clarification:** Menstrual irregularities are common in postmenarche and perimenopause and might complicate the use of FAB methods.
a. Postmenarche	C	C	
b. Perimenopause	C	C	
Breastfeeding			**Comment:** Use of FAB methods when breastfeeding might be less effective than when not breastfeeding.
a. <6 wks postpartum	D	D	**Comment:** Women who are primarily breastfeeding and are amenorrheic are unlikely to have sufficient ovarian function to produce detectable fertility signs and hormonal changes during the first 6 months postpartum. However, the likelihood of resumption of fertility increases with time postpartum and with substitution of breast milk with other foods.
b. ≥6 wks	C	D	
c. After menses begin	C	C	**Comment:** When the woman notices fertility signs, particularly cervical secretions, she can use a symptoms-based method. First postpartum menstrual cycles in breastfeeding women vary significantly in length. Return to regularity takes several cycles. When she has had at least 3 postpartum menses and her cycles are regular again, she can use a calendar-based method. When she has had at least 4 postpartum menses and her most recent cycle lasted 26–32 days, she can use the Standard Days Method. Before that time, a barrier method should be offered if the woman plans to use a FAB method later.

TABLE. (*Continued*) Fertility awareness–based methods,*† including symptoms-based and calendar-based methods

Condition	Category: Symptom-based method	Category: Calendar-based method	Clarifications/Evidence/Comments
Postpartum (in nonbreastfeeding women)			
a. <4 wks	D	D	**Comment:** Nonbreastfeeding women are not likely to have sufficient ovarian function to either require a FAB method or to have detectable fertility signs or hormonal changes before 4 weeks postpartum. Although the risk for pregnancy is low, a method appropriate for the postpartum period should be offered.
b. ≥4 wks	A	D	**Comment:** Nonbreastfeeding women are likely to have sufficient ovarian function to produce detectable fertility signs and/or hormonal changes at this time; likelihood increases rapidly with time postpartum. Women can use calendar-based methods as soon as they have completed three postpartum menses. Methods appropriate for the postpartum period should be offered before that time.
Postabortion	C	D	**Comment:** Postabortion women are likely to have sufficient ovarian function to produce detectable fertility signs and/or hormonal changes; likelihood increases with time postabortion. Women can start using calendar-based methods after they have had at least 1 postabortion menses (e.g., women who before this pregnancy had most cycles of 26–32 days can then use the Standard Days Method). Methods appropriate for the postabortion period should be offered before that time.
Reproductive Tract Infections and Disorders			
Irregular vaginal bleeding	D	D	**Comment:** Presence of this condition makes FAB methods unreliable. Therefore, barrier methods should be recommended until the bleeding pattern is compatible with proper method use. The condition should be evaluated and treated as necessary.
Vaginal discharge	D	A	**Comment:** Because vaginal discharge makes recognition of cervical secretions difficult, the condition should be evaluated and treated if needed before providing methods based on cervical secretions.
Other			
Use of drugs that affect cycle regularity, hormones, and/or fertility signs	C/D	C/D	**Comment:** Use of certain mood-altering drugs such as lithium, tricyclic antidepressants, and antianxiety therapies, and certain antibiotics and anti-inflammatory drugs, might alter cycle regularity or affect fertility signs. The condition should be carefully evaluated and a barrier method offered until the degree of effect has been determined or the drug is no longer being used.
Diseases that elevate body temperature			
a. Chronic diseases	C	A	**Comment:** Elevated temperature levels might make basal body temperature difficult to interpret but have no effect on cervical secretions. Thus, use of a method that relies on temperature should be delayed until the acute febrile disease abates. Temperature-based methods are not appropriate for women with chronically elevated temperatures. In addition, some chronic diseases interfere with cycle regularity, making calendar-based methods difficult to interpret.
b. Acute diseases	D	A	

* Abbreviations: FAB = fertility awareness–based; A = accept; C = caution; D = delay; STI = sexually transmitted infection; HIV = human immunodeficiency infection.
† Fertility awareness–based methods do not protect against STI/HIV. If risk exists for STI/HIV (including during pregnancy or postpartum), the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STIs and HIV transmission.

Appendix I
Lactational Amenorrhea Method

The Bellagio Consensus provided the scientific basis for defining the conditions under which breastfeeding can be used safely and effectively for birth-spacing purposes, and programmatic guidelines were developed for use of lactational amenorrhea in family planning (*1,2*). These guidelines include the following three criteria, all of which must be met to ensure adequate protection from an unplanned pregnancy: 1) amenorrhea; 2) fully or nearly fully breastfeeding, and 3) <6 months postpartum.

The main indications for breastfeeding are to provide an ideal food for the infant and protect against disease. No medical conditions exist for which use of the lactational amenorrhea method for contraception is restricted. However, breastfeeding might not be recommended for women or infants with certain conditions.

Women with conditions that make pregnancy an unacceptable risk should be advised that the lactational amenorrhea method might not be appropriate for them because of its relatively higher typical-use failure rates. The lactational amenorrhea method does not protect against sexually transmitted infections (STIs) and human immunodeficiency virus (HIV). If risk exists for STI/HIV (including during pregnancy or postpartum), the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STIs and HIV transmission.

HIV Infection

HIV can be transmitted from mother to infant through breastfeeding. Therefore, in the United States, where replacement feeding is affordable, feasible, acceptable, sustainable, and safe, breastfeeding for women with HIV is not recommended (*3,4*).

Other Medical Conditions

The American Academy of Pediatrics also recommends against breastfeeding for women with active untreated tuberculosis disease, who are positive for human T-cell lymphotropic virus types I or II, or who have herpes simplex lesions on a breast (infant can feed from the other breast). In addition, infants with classic galactosemia should not breastfeed (*4*).

Medication Used during Breastfeeding

To protect infant health, the American Academy of Pediatrics does not recommend breastfeeding for women receiving certain drugs, including diagnostic or therapeutic radioactive isotopes or exposure to radioactive materials, antimetabolites or chemotherapeutic agents, and current use of drugs of abuse (*4*).

References

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Appendix J

Coitus Interruptus (Withdrawal)

Coitus interruptus (CI), also known as withdrawal, is a traditional family planning method in which the man completely removes his penis from the vagina, and away from the external genitalia of the female partner, before he ejaculates. CI prevents sperm from entering the woman's vagina, thereby preventing contact between spermatozoa and the ovum.

This method might be appropriate for couples

- who are highly motivated and able to use this method effectively;
- with religious or philosophical reasons for not using other methods of contraception;
- who need contraception immediately and have entered into a sexual act without alternative methods available;
- who need a temporary method while awaiting the start of another method; or
- who have intercourse infrequently.

Some benefits of CI are that the method, if used correctly, does not affect breastfeeding and is always available for primary use or use as a back-up method. In addition, CI involves no economic cost or use of chemicals. CI has no directly associated health risks. CI does not protect against sexually transmitted infections (STIs) and human immunodeficiency virus (HIV). If risk exists for STI/HIV (including during pregnancy or postpartum), the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STIs and HIV transmission.

CI is unforgiving of incorrect use, and its effectiveness depends on the willingness and ability of the couple to use withdrawal with every act of intercourse. Women with conditions that make pregnancy an unacceptable risk should be advised that CI might not be appropriate for them because of its relatively higher typical-use failure rates.

Appendix K
Female and Male Sterilization

Tubal sterilization for women and vasectomy for men are permanent, safe, and highly effective methods of contraception. In general, no medical conditions would absolutely restrict a person's eligibility for sterilization (with the exception of known allergy or hypersensitivity to any materials used to complete the sterilization method). However, certain conditions place a woman at high surgical risk; in these cases, careful consideration should be given to the risks and benefits of other acceptable alternatives, including long-acting, highly effective, reversible methods and vasectomy. Female and male sterilization do not protect against sexually transmitted infections (STIs) or human immunodeficiency virus (HIV). If risk exists for STI/HIV (including during pregnancy or postpartum), the correct and consistent use of condoms is recommended, either alone or with another contraceptive method. Consistent and correct use of the male latex condom reduces the risk for STIs and HIV transmission.

Because these methods are intended to be irreversible, persons who choose sterilization should be certain that they want to prevent pregnancy permanently. Most persons who choose sterilization remain satisfied with their decision. However, a small proportion of women regret this decision (1%–26% from different studies, with higher rates of regret reported by women who were younger at sterilization) (*1,2*). Regret among men about vasectomy has been reported to be approximately 5% (*3*), similar to the proportion of women who report regretting their husbands' vasectomy (6%) (*4*). Therefore, all persons should be appropriately counseled about the permanency of sterilization and the availability of highly effective, reversible methods of contraception.

References

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3. Ehn BE, Liljestrand J. A long-term follow-up of 108 vasectomized men. Good counselling routines are important. Scand J Urol Nephrol 1995;29:477–81.
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Appendix L

Summary of Classifications for Hormonal Contraceptive Methods and Intrauterine Devices

Health-care providers can use the summary table as a quick reference guide to the classifications for hormonal contraceptive methods and intrauterine contraception and to compare classifications across these methods. See the full appendix for each method for clarifications to the numeric categories, as well as for summaries of the evidence and additional comments.

BOX. Categories for Classifying Hormonal Contraceptives and IUDs

1 = A condition for which there is no restriction for the use of the contraceptive method.
2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.
4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

TABLE. Summary of classifications for hormonal contraceptive methods and intrauterine devices*

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD	Cu-IUD
Personal Characteristics and Reproductive History						
Pregnancy	Not applicable†	Not applicable†	Not applicable†	Not applicable†	4†	4†
Age	Menarche to <40 yrs = 1 ≥40 yrs = 2	Menarche to <18 yrs = 1 18–45 yrs = 1 >45 yrs = 1	Menarche to <18 yrs = 2 18–45 yrs = 1 >45 yrs = 1	Menarche to <18 yrs =1 18–45 yrs = 1 >45 yrs = 1	Menarche to <20 yrs = 2 ≥20 yrs = 1	Menarche to <20 yrs = 2 ≥20 yrs = 1
Parity						
a. Nulliparous	1	1	1	1	2	2
b. Parous	1	1	1	1	1	1
Breastfeeding						
a. <1 mo postpartum	3†	2†	2†	2†		
b. 1 mo to <6 mos	2†	1†	1†	1†		
c. ≥6 mos postpartum	2†	1†	1†	1†		
Postpartum (nonbreastfeeding women)						
a. <21 days	3	1	1	1		
b. ≥21 days	1	1	1	1		
Postpartum (breastfeeding or nonbreastfeeding women, including post-Cesarean section)						
a. <10 min after delivery of the placenta					2	1
b. 10 min after delivery of the placenta to <4 wks					2	2
c. ≥4 wks					1	1
d. Puerperal sepsis					4	4
Postabortion						
a. First trimester	1†	1†	1†	1†	1†	1†
b. Second trimester	1†	1†	1†	1†	2	2
c. Immediate postseptic abortion	1†	1†	1†	1†	4	4
Past ectopic pregnancy	1	2	1	1	1	1
History of pelvic surgery (see postpartum, including Cesarean section)	1	1	1	1	1	1
Smoking						
a. Age <35 yrs	2	1	1	1	1	1
b. Age ≥35 yrs						
i. <15 Cigarettes/day	3	1	1	1	1	1
ii. ≥15 Cigarettes/day	4	1	1	1	1	1

TABLE. (*Continued*) Summary of classifications for hormonal contraceptive methods and intrauterine devices*

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD	Cu-IUD
Obesity						
a. ≥30 kg/m² BMI	2	1	1	1	1	1
b. Menarche to <18 yrs and ≥30 kg/m² BMI	2	1	2	1	1	1
History of bariatric surgery§						
a. Restrictive procedures: decrease storage capacity of the stomach (vertical banded gastroplasty, laparoscopic adjustable gastric band, laparoscopic sleeve gastrectomy)	1	1	1	1	1	1
b. Malabsorptive procedures: decrease absorption of nutrients and calories by shortening the functional length of the small intestine (Roux-en-Y gastric bypass, biliopancreatic diversion)	COCs: 3 P/R: 1	3	1	1	1	1
Cardiovascular Disease						
Multiple risk factors for arterial cardiovascular disease (such as older age, smoking, diabetes, and hypertension)	3/4†	2†	3†	2†	2	1
Hypertension						
a. Adequately controlled hypertension	3†	1†	2†	1†	1	1
b. Elevated blood pressure levels (properly taken measurements)						
i. Systolic 140–159 mm Hg or diastolic 90–99 mm Hg	3	1	2	1	1	1
ii. Systolic ≥160 mm Hg or diastolic ≥100 mm Hg§	4	2	3	2	2	1
c. Vascular disease	4	2	3	2	2	1
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	2	1	1	1	1	1
Deep venous thrombosis (DVT)/ pulmonary embolism (PE)						
a. History of DVT/PE, not on anticoagulant therapy						
i. Higher risk for recurrent DVT/PE (≥1 risk factors) • History of estrogen-associated DVT/PE • Pregnancy-associated DVT/PE • Idiopathic DVT/PE • Known thrombophilia, including antiphospholipid syndrome • Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer • History of recurrent DVT/PE	4	2	2	2	2	1
ii. Lower risk for recurrent DVT/PE (no risk factors)	3	2	2	2	2	1
b. Acute DVT/PE	4	2	2	2	2	2
c. DVT/PE and established on anticoagulant therapy for at least 3 mos						
i. Higher risk for recurrent DVT/PE (≥1 risk factors) • Known thrombophilia, including antiphospholipid syndrome • Active cancer (metastatic, on therapy, or within 6 mos after clinical remission), excluding non-melanoma skin cancer • History of recurrent DVT/PE	4†	2	2	2	2	2
ii. Lower risk for recurrent DVT/PE (no risk factors)	3†	2	2	2	2	2

TABLE. (*Continued*) Summary of classifications for hormonal contraceptive methods and intrauterine devices*

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD	Cu-IUD
d. Family history (first-degree relatives)	2	1	1	1	1	1
e. Major surgery						
i. With prolonged immobilization	4	2	2	2	2	1
ii. Without prolonged immobilization	2	1	1	1	1	1
f. Minor surgery without immobilization	1	1	1	1	1	1
Known thrombogenic mutations§ (e.g. factor V Leiden; prothrombin mutation; protein S, protein C, and antithrombin deficiencies)	4†	2†	2†	2†	2†	1†
Superficial venous thrombosis						
a. Varicose veins	1	1	1	1	1	1
b. Superficial thrombophlebitis	2	1	1	1	1	1
Current and history of ischemic heart disease§		Initiation Continuation		Initiation Continuation	Initiation Continuation	
	4	2 3	3	2 3	2 3	1
Stroke§ (history of cerebrovascular accident)		Initiation Continuation		Initiation Continuation		
	4	2 3	3	2 3	2	1
Known hyperlipidemias	2/3†	2†	2†	2†	2†	1†
Valvular heart disease						
a. Uncomplicated	2	1	1	1	1	1
b. Complicated§ (pulmonary hypertension, risk for atrial fibrillation, history of subacute bacterial endocarditis)	4	1	1	1	1	1
Peripartum cardiomyopathy§						
a. Normal or mildly impaired cardiac function (New York Heart Association Functional Class I or II: patients with no limitation of activities or patients with slight, mild limitation of activity) (*1*)						
i. <6 mos	4	1	1	1	2	2
ii. ≥6 mos	3	1	1	1	2	2
b. Moderately or severely impaired cardiac function (New York Heart Association Functional Class III or IV: patients with marked limitation of activity or patients who should be at complete rest) (*1*)	4	2	2	2	2	2
Rheumatic Diseases						
Systemic lupus erythematosus§			Initiation Continuation			Initiation Continuation
a. Positive (or unknown) antiphospholipid antibodies	4	3	3 3	3	3	1 1
b. Severe thrombocytopenia	2	2	3 2	2	2†	3† 2†
c. Immunosuppressive treatment	2	2	2 2	2	2	2 1
d. None of the above	2	2	2 2	2	2	1 1
Rheumatoid arthritis					Initiation Continuation	Initiation Continuation
a. On immunosuppressive therapy	2	1	2/3†	1	2 1	2 1
b. Not on immunosuppressive therapy	2	1	2	1	1	1
Neurologic Conditions						
Headaches	Initiation Continuation	Initiation Continuation	Initiation Continuation	Initiation Continuation	Initiation Continuation	
a. Non-migrainous (mild or severe)	1† 2†	1† 1†	1† 1†	1† 1†	1† 1†	1†
b. Migraine						
i. Without aura						
• Age <35 yrs	2† 3†	1† 2†	2† 2†	2† 2†	2† 2†	1†
• Age ≥35 yrs	3† 4†	1† 2†	2† 2†	2† 2†	2† 2†	1†
ii. With aura (at any age)	4† 4†	2† 3†	2† 3†	2† 3†	2† 3†	1†
Epilepsy§	1†	1†	1†	1†	1	1

If on treatment, see Drug Interactions section below

TABLE. (*Continued*) Summary of classifications for hormonal contraceptive methods and intrauterine devices*

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD		Cu-IUD	
Depressive Disorders								
Depressive disorders	1†	1†	1†	1†	1†		1†	
Reproductive Tract Infections and Disorders								
Vaginal bleeding patterns					Initiation	Continuation		
a. Irregular pattern without heavy bleeding	1	2	2	2	1	1	1	
b. Heavy or prolonged bleeding (includes regular and irregular patterns)	1†	2†	2†	2†	1†	2†	2†	
Unexplained vaginal bleeding (suspicious for serious condition)					Initiation	Continuation	Initiation	Continuation
Before evaluation	2†	2†	3†	3†	4†	2†	4†	2†
Endometriosis	1	1	1	1	1		2	
Benign ovarian tumors (including cysts)	1	1	1	1	1		1	
Severe dysmenorrhea	1	1	1	1	1		2	
Gestational trophoblastic disease								
a. Decreasing or undetectable ß-hCG levels	1	1	1	1	3		3	
b. Persistently elevated ß-hCG levels or malignant disease§	1	1	1	1	4		4	
Cervical ectropion	1	1	1	1	1		1	
Cervical intraepithelial neoplasia	2	1	2	2	2		1	
Cervical cancer (awaiting treatment)					Initiation	Continuation	Initiation	Continuation
	2	1	2	2	4	2	4	2
Breast disease								
a. Undiagnosed mass	2†	2†	2†	2†	2		1	
b. Benign breast disease	1	1	1	1	1		1	
c. Family history of cancer	1	1	1	1	1		1	
d. Breast cancer§								
i. Current	4	4	4	4	4		1	
ii. Past and no evidence of current disease for 5 yrs	3	3	3	3	3		1	
Endometrial hyperplasia	1	1	1	1	1		1	
Endometrial cancer§					Initiation	Continuation	Initiation	Continuation
	1	1	1	1	4	2	4	2
Ovarian cancer§	1	1	1	1	1		1	
Uterine fibroids	1	1	1	1	2		2	
Anatomical abnormalities								
a. Distorted uterine cavity (any congenital or acquired uterine abnormality distorting the uterine cavity in a manner that is incompatible with IUD insertion)					4		4	
b. Other abnormalities (including cervical stenosis or cervical lacerations) not distorting the uterine cavity or interfering with IUD insertion					2		2	
Pelvic inflammatory disease (PID)								
a. Past PID (assuming no current risk factors of STIs)					Initiation	Continuation	Initiation	Continuation
i. With subsequent pregnancy	1	1	1	1	1	1	1	1
ii. Without subsequent pregnancy	1	1	1	1	2	2	2	2
b. Current PID	1	1	1	1	4	2†	4	2†

TABLE. (*Continued*) Summary of classifications for hormonal contraceptive methods and intrauterine devices*

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD		Cu-IUD	
STIs					Initiation	Continuation	Initiation	Continuation
a. Current purulent cervicitis or chlamydial infection or gonorrhea	1	1	1	1	4	2†	4	2†
b. Other STIs (excluding HIV and hepatitis)	1	1	1	1	2	2	2	2
c. Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	1	1	1	1	2	2	2	2
d. Increased risk for STIs	1	1	1	1	2/3†	2	2/3†	2
HIV/AIDS					Initiation	Continuation	Initiation	Continuation
High risk for HIV	1	1	1	1	2	2	2	2
HIV infection§	1	1	1	1	2	2	2	2
AIDS§	1†	1†	1†	1†	3	2†	3	2†
Clinically well on ARV therapy	If on treatment, see Drug Interactions section below				2	2	2	2
Other Infections								
Schistosomiasis								
a. Uncomplicated	1	1	1	1	1		1	
b. Fibrosis of the liver (if severe, see Cirrhosis)§	1	1	1	1	1		1	
Tuberculosis§					Initiation	Continuation	Initiation	Continuation
a. Nonpelvic	1†	1†	1†	1†	1	1	1	1
b. Pelvic	1†	1†	1†	1†	4	3	4	3
	If on treatment, see Drug Interactions section below							
Malaria	1	1	1	1	1		1	
Endocrine Conditions								
Diabetes								
a. History of gestational disease	1	1	1	1	1		1	
b. Nonvascular disease								
i. Noninsulin-dependent	2	2	2	2	2		1	
ii. Insulin-dependent§	2	2	2	2	2		1	
c. Nephropathy/retinopathy/neuropathy§	3/4†	2	3	2	2		1	
d. Other vascular disease or diabetes of >20 yrs' duration§	3/4†	2	3	2	2		1	
Thyroid disorders								
a. Simple goiter	1	1	1	1	1		1	
b. Hyperthyroid	1	1	1	1	1		1	
c. Hypothyroid	1	1	1	1	1		1	
Gastrointestinal Conditions								
Inflammatory bowel disease (IBD) (ulcerative colitis, Crohn disease)	2/3†	2	2	1	1		1	
Gallbladder disease								
a. Symptomatic								
i. Treated by cholecystectomy	2	2	2	2	2		1	
ii. Medically treated	3	2	2	2	2		1	
iii. Current	3	2	2	2	2		1	
b. Asymptomatic	2	2	2	2	2		1	
History of cholestasis								
a. Pregnancy-related	2	1	1	1	1		1	
b. Past COC-related	3	2	2	2	2		1	
Viral hepatitis	Initiation	Continuation						
a. Acute or flare	3/4†	2	1	1	1		1	
b. Carrier	1	1	1	1	1		1	
c. Chronic	1	1	1	1	1		1	
Cirrhosis								
a. Mild (compensated)	1		1	1	1		1	
b. Severe§ (decompensated)	4		3	3	3		1	

TABLE. (*Continued*) Summary of classifications for hormonal contraceptive methods and intrauterine devices*

Condition	COC/P/R	POP	DMPA	Implants	LNG-IUD		Cu-IUD	
Liver tumors								
a. Benign								
i. Focal nodular hyperplasia	2	2	2	2	2		1	
ii. Hepatocellular adenoma§	4	3	3	3	3		1	
b. Malignant§ (hepatoma)	4	3	3	3	3		1	
Anemias								
Thalassemia	1	1	1	1	1		2	
Sickle cell disease§	2	1	1	1	1		2	
Iron-deficiency anemia	1	1	1	1	1		2	
Solid Organ Transplantation								
Solid organ transplantation§					Initiation	Continuation	Initiation	Continuation
a. Complicated: graft failure (acute or chronic), rejection, cardiac allograft vasculopathy	4	2	2	2	3	2	3	2
b. Uncomplicated	2†	2	2	2	2		2	
Drug Interactions								
Antiretroviral therapy (see appendix M)					Initiation	Continuation	Initiation	Continuation
a. Nucleoside reverse transcriptase inhibitors (NRTIs)	1†	1	1	1	2/3†	2†	2/3†	2†
b. Non-nucleoside reverse transcriptase inhibitors (NNRTIs)	2†	2†	1	2†	2/3†	2†	2/3†	2†
c. Ritonavir-boosted protease inhibitors	3†	3†	1	2†	2/3†	2†	2/3†	2†
Anticonvulsant therapy								
a. Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	3†	3†	1	2†	1		1	
b. Lamotrigine	3†	1	1	1	1		1	
Antimicrobial therapy								
a. Broad-spectrum antibiotics	1	1	1	1	1		1	
b. Antifungals	1	1	1	1	1		1	
c. Antiparasitics	1	1	1	1	1		1	
d. Rifampicin or rifabutin therapy	3†	3†	1	2†	1		1	

* Abbreviations: COC = combined oral contraceptive; P = combined hormonal contraceptive patch; R = combined hormonal vaginal ring; POP = progestin-only pill; DMPA = depot medroxyprogesterone acetate; IUD = intrauterine device; LNG-IUD = levonorgestrel-releasing IUD; Cu-IUD = copper IUD; BMI = body mass index; DVT = deep venous thrombosis; PE = pulmonary embolism; hCG, = human chorionic gonadotropin; PID = pelvic inflammatory disease; STI = sexually transmitted infection; HIV = human immunodeficiency virus; AIDS = acquired immunodeficiency syndrome; NRTI = nucleoside reverse transcriptase inhibitor; NNRTI = non-nucleoside reverse transcriptase.
† Consult the appendix for this contraceptive method for a clarification to this classification.
§ Condition that exposes a woman to increased risk as a result of unintended pregnancy.

Reference

1. The Criteria Committee of the New York Heart Association. Nomenclature and criteria for diagnosis of diseases of the heart and great vessels. 9th ed. Boston, MA: Little, Brown & Co.; 1994.

Appendix M

Summary of Evidence Regarding Potential Drug Interactions between Hormonal Contraception and Antiretroviral Therapies

Limited data from small, mostly unpublished studies suggest that some antiretroviral (ARV) therapies might alter the pharmacokinetics of combined oral contraceptives (COCs). Few studies have measured clinical outcomes. However, contraceptive steroid levels in the blood decrease substantially with ritonavir-boosted protease inhibitors. Such decreases have the potential to compromise contraceptive effectiveness. Some of the interactions between contraceptives and ARVs also have led to increased ARV toxicity. For smaller effects that occur with non-nucleoside reverse transcriptase inhibitors, clinical significance is unknown, especially because studies have not examined steady-state levels of contraceptive hormones. No clinically significant interactions have been reported between contraceptive hormones and nucleoside reverse transcriptase inhibitors.

Tables 1 and 2 summarize the evidence available about drug interactions between ARV therapies and hormonal contraceptives. For up-to-date, detailed information about human immunodeficiency virus (HIV) drug interactions, the following resources might be helpful:

- *Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents* from the DHHS Panel on Antiretroviral Guidelines for Adults and Adolescents. Available at http://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL.pdf.
- HIV Drug Interactions website, University of Liverpool, UK. Available at www.hiv-druginteractions.org.

TABLE 1. Drug interactions between COCs and ARV drugs*

ARV	Contraceptive effects†	ARV effects†
Nucleoside reverse transcriptase inhibitors (NRTIs)		
Tenofovir disaproxil fumarate	EE ↔, NGM ↔ (*1*)	Tenofovir ↔ (*1*)
Zidovudine	No data	Zidovudine ↔ (*2*) No change in viral load or CD4+ (*2*)
Non-nucleoside reverse transcriptase inhibitors (NNRTIs)		
Efavirenz	EE ↑ (*3*), EE ↔ (*4*), NGM ↓ (*4*), LNG ↓ (*4*) Pregnancy rate 2.6/100 woman-years in 1 study in which up to 80% used hormonal contraceptives (35% used COC) (*5*)	Efavirenz ↔ (*3,4*)
Etravirine	EE ↔, NET ↔ (*6*)	Etravirine ↑ (*6*) Concurrent administration, generally safe and well tolerated (*6*)
Nevirapine	EE ↔, NET ↔ (*7*)	Nevirapine ↔ (*7*)
Protease inhibitors and ritonavir-boosted protease inhibitors		
Atazanavir/ritonavir	EE ↑, NET ↑ (*8*)	No data
Darunavir/ritonavir	EE ↓, NET ↔ (*9*)	Darunavir ↔ (*9*)
Fos-amprenavir/ritonavir	EE ↓ (*10,11*), NET ↓ (*11*)	Amprenavir ↔, ritonavir ↑, Elevated liver transaminases (*10*)
Indinavir§	EE ↔, NET ↔ (*12*)	No data
Lopinavir/ritonavir	EE ↓, NET ↔ (*13*)	No data
Nelfinavir	EE ↓, NET ↔ (*14*)	No data
Saquinavir§	No data	Saquinavir ↔ (*15,16*)
Tipranavir/ritonavir	EE↓ (*17*)	↑ Skin and musculoskeletal adverse events; possible drug hypersensitivity reaction (*17*)

* Abbreviations: COC = combined oral contraceptive; ARV = antiretroviral; EE = ethinyl estradiol; NGM = norgestimate; NNRTI = non-nucleoside reverse transcriptase inhibitor; LNG = levonorgestrel; NET = norethindrone.
† ↔, no change or change ≤30%; ↑, increase >30%; ↓, decrease >30%.
§ Saquinavir and indinavir are commonly given boosted by ritonavir, but there are no data on contraceptive interactions with the boosted regimens.

TABLE 2. Drug interactions between DMPA and ARV drugs*

ARV	Contraceptive effects†	ARV effects†
Nucleoside reverse transcriptase inhibitors (NRTIs)		
Zidovudine	No data	Zidovudine ↔ (*2*) No change in viral load
Non-nucleoside reverse transcriptase inhibitors (NNRTIs)		
Efavirenz	MPA ↔ (*18,19*) No ovulations during 3 cycles(*18,19*) Pregnancy rate 2.6/100 woman-years in 1 study where up to 80% used hormonal contraceptives (65% used POIs) (*5*)	Efavirenz ↔ (*18*) No change in viral load or CD4+, no grade 3- or 4-related adverse events§ (*20*)
Nevirapine	MPA ↔ (*18*) No ovulations during 3 cycles(*18*)	Nevirapine ↑ (*18*) No change in viral load or CD4+, no grade 3- or 4-related adverse events§ (*20*)
Protease inhibitors and ritonavir-boosted protease inhibitors		
Nelfinavir	MPA ↔ (*18*)	Nelfinavir ↔ (*18*) No change in viral load or CD4+, no grade 3- or 4-related adverse events§ (*20*)

* Abbreviations: DMPA = depot medroxyprogesterone acetate; ARV = antiretroviral; NRTI = nucleoside reverse transcriptase inhibitor; NNRTI = non-nucleoside reverse transcriptase; MPA = medroxyprogesterone acetate; POI = progestin-only injectables.
† ↔, no change or change ≤30%; ↑, increase > 30%.
§ The trial applied the standardized National Institutes of Health Division of AIDS Table for Grading Severity of Adult and Pediatric Adverse Events, 2004 (http://rcc.tech-res.com/Document/safetyandpharmacovigilance/DAIDS_AE_GradingTable_Clarification_August2009_Final.pdf). Grade 3 events are classified as severe. Severe events are defined as symptoms that limit activity or might require some assistance; require medical intervention or therapy; and might require hospitalization. Grade 4 events are classified as life threatening. Life-threatening events include symptoms that result in extreme limitation of activity and require substantial assistance; require substantial medical intervention and therapy; and probably require hospitalization or hospice.

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Abbreviations and Acronyms

A	accept
AIDS	acquired immunodeficiency syndrome
ARV	antiretroviral
BMD	bone mineral density
BMI	body mass index
C	caution
CDC	Centers for Disease Control and Prevention
CHC	combined hormonal contraceptive
CI	coitus interruptus
COC	combined oral contraceptive
Cu-IUD	copper intrauterine device
D	delayed
DMPA	depot medroxyprogesterone acetate
DVT	deep venous thrombosis
ECP	emergency contraceptive pills
EE	ethinyl estradiol
E-IUD	emergency intrauterine device
ETG	etonogestrel
FAB	fertility awareness–based methods
hCG	human chorionic gonadotropin
HDL	high-density lipoprotein
HIV	human immunodeficiency virus
HPV	human papillomavirus
IBD	inflammatory bowel disease
IUS	intrauterine system
IUD	intrauterine device
LNG	levonorgestrel
LNG-IUD	levonorgestrel-releasing intrauterine device
MEC	Medical Eligibility Criteria
NET-EN	norethisterone enantate
NGM	norgestimate
NNRTI	non-nucleoside reverse transcriptase inhibitor
NRTI	nucleoside reverse transcriptase inhibitor
P	combined hormonal contraceptive patch
PE	pulmonary embolism
PID	pelvic inflammatory disease
POC	progestin-only contraceptive
POI	progestin-only injectable
POP	progestin-only pill
R	combined hormonal vaginal ring
SLE	systemic lupus erythematosus
STI	sexually transmitted infection
VTE	venous thromboembolism
WHO	World Health Organization

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

Atlanta, GA, February 17–19, 2009

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