

MEDICAL ELIGIBILITY CRITERIA FOR CONTRACEPTIVE USE

2008 update

EXECUTIVE SUMMARY

The *Medical eligibility criteria for contraceptive use* – one of the four cornerstones of the World Health Organization's (WHO) evidence-based family planning guidance – provides evidence-based recommendations on whether an individual can safely use a contraceptive method. This guideline is intended for use by policy-makers, programme managers, and the scientific community in the preparation of national family planning/sexual and reproductive health programmes for delivery of contraceptives. The first edition of the *Medical eligibility criteria for contraceptive use* was published in 1996; subsequent editions were published in 2000 and 2004.

On 1–4 April 2008, WHO convened an expert Working Group in Geneva, Switzerland to revise the third edition in response to newly published evidence as well as to provide recommendations for additional medical conditions. The meeting brought together 43 participants from 23 countries, including nine agency representatives. The expert Working Group was comprised of: international family planning experts, including clinicians, epidemiologists, policy makers, programme managers; experts in evidence identification and synthesis; experts in pharmacology; and users of the guideline. All members of the expert Working Group were asked to declare any conflict of interest; three of the experts declared a conflict of interest relevant to the subject matter of the meeting. They were not asked to withdraw from recommendation formulation.

METHOD OF WORK

Using a system that identifies new evidence on an ongoing basis (the Continuous Identification of Research Evidence, or CIRE system, www.inforhealth.org/cire/cire_pub.pl),¹ WHO identified recommendations from the third edition for which new evidence was available. Systematic reviews were then conducted to appraise the complete body of evidence for those recommendations. To conduct the systematic reviews, studies were identified using the CIRE system as well as through searches of PubMed and *The Cochrane Library* from 1966 to January 2008. The search also included reviews of reference lists in articles identified by the literature search and contact with experts in the field. The systematic reviews were provided to the expert Working Group prior to the meeting and served as the basis for the Group's deliberations during the meeting. The Group arrived at its recommendations through consensus.

¹ Mohllajee AP, Curtis KM, Flanagan RG, Rinehart W, Gaffield ML, Peterson HB. Keeping up with evidence: a new system for WHO's evidence-based family planning guidance. *American Journal of Preventive Medicine*, 2005; 28:483–490.

The expert Working Group developed 251 new recommendations for the 4th edition of the *Medical eligibility criteria for contraceptive use*. As a result of the deliberations by the group, the 4th edition of the *Medical eligibility criteria for contraceptive use* will include the medical condition, systemic lupus erythematosus (SLE) and 12 new sub-conditions will be added to medical conditions already existing in the 3rd edition. The 12 sub-conditions are: obesity and <18 years of age; deep venous thrombosis/pulmonary embolism (DVT/PE) and established on anticoagulant therapy; acute or flare for viral hepatitis; focal nodular hyperplasia of the liver; three classes of antiretroviral therapies (Nucleoside reverse transcriptase inhibitors [NRTIs], Non-nucleoside reverse transcriptase inhibitors [NNRTIs], Ritonavir-boosted protease inhibitors [PIs]); Lamotrigine (an anticonvulsant); and four classes of antimicrobials (broad-spectrum antibiotics, antifungals, antiparasitics, and rifabutin with rifampicin).

HOW TO USE THIS SUMMARY

This document presents a table for seven contraceptive method groups and summarizes: 1) changes to medical eligibility classifications for recommendations in the third edition of the *Medical eligibility criteria for contraceptive use*; 2) medical conditions whose definition changed; and 3) recommendations for newly added medical conditions or sub-conditions. The contraceptive methods include: combined oral contraceptives (COC), patch (P), and the vaginal ring (R); combined injectable contraceptives (CIC); progestogen-only pills (POP); depot medroxyprogesterone acetate (DMPA) and norethisterone enantate (NET-EN) injectables; levonorgestrel (LNG) and etonogestrel (ETG) implants; copper-bearing intrauterine devices (Cu-IUD); and levonorgestrel-releasing intrauterine devices (LNG-IUD). In addition, classification changes for barrier methods and female surgical sterilization are included in the text following the table.

The expert Working Group addressed medical criteria for initiation and continuation of use of these methods; when the Group determined different eligibility criteria categories for initiation and continuation, the differences are noted in columns 'I=Initiation' and 'C=Continuation'. When I and C are not denoted, the category is the same for initiation and continuation.

Medical eligibility for each contraceptive method, with the exception of female and male surgical sterilization, was classified using four categories:

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

Where the Working Group determined that additional guidance for a recommendation was required, the Working Group provided a 'clarification' for the assigned category. Where resources for clinical judgement are limited, the four-category classification framework can be simplified into two categories. With this simplification, a category 1 or 2 classification indicates that a woman is medically eligible to use the method. A category 3 or 4 classification indicates that a woman is not medically eligible to use the method.

Recommendations for surgical sterilization are defined according to the following four categories:

- A (accept) = There is no medical reason to deny sterilization to a person with this condition;

- C (caution) = The procedure is normally conducted in a routine setting, but with extra preparation and precautions;
- D (delay) = The procedure is delayed until the condition is evaluated and/or corrected. Alternative temporary methods of contraception should be provided;
- S (special) = The procedure should be undertaken in a setting with an experienced surgeon and staff, equipment needed to provide general anaesthesia, and other back-up medical support. For these conditions, the capacity to decide on the most appropriate procedure and anaesthesia regimen is also needed. Alternative temporary methods of contraception should be provided, if referral is required or there is otherwise any delay.

The changes are highlighted in bold lettering within the table, and listed for barrier and sterilization methods. The new and updated recommendations will appear in the 4th edition of the guideline when it is published. For the complete text of each of these recommendations refer to the 3rd edition of the guideline (available at <http://www.who.int/reproductive-health/publications/mec/index.htm>).

It is expected that the recommendations in the 4th edition of the *Medical eligibility criteria for contraceptive use* will remain valid until 2011. The Department of Reproductive Health and Research at WHO Headquarters in Geneva will be responsible for initiating a review of the guideline at that time.

Summary of changes to the third edition of the <i>Medical Eligibility Criteria for Contraceptive Use</i> (changes are noted in bold)								
CONDITION	COC/P/R	CIC	POP	DMPA NET-EN	LNG/ETG Implants	Cu- IUD	LNG- IUD	CLARIFICATION
I = Initiation, C = Continuation, BF = Breastfeeding								
POSTPARTUM (breastfeeding or non-breast-feeding women, including post-caesarean section)								
a) < 48 hours including insertion immediately after delivery of the placenta						1	1=not BF, 3=BF	
b) ≥ 48 hours to <4 weeks						3	3	
c) ≥ 4 weeks						1	1	
d) Puerperal sepsis						4	4	
OBESITY	2	2	1	1	1	1	1	
a) ≥30 kg/m ² body mass index (BMI)								
b) Menarche to < 18 years and ≥ 30 kg/m² body mass index (BMI)	2	2	1	DMPA=2 NET-EN=1*	1	1	1	There is no evidence of a differential weight gain between normal weight and obese adolescents who use NET-EN; this condition is classified as Category 1. However, the condition age < 18 years is classified as Category 2 due to evidence regarding potential effects of NET-EN on bone mineral density. (See Age condition).
DEEP VEIN THROMBOSIS (DVT)/ PULMONARY EMBOLISM (PE)								
a) History of DVT/PE	4	4	2	2	2	1	2	
b) Acute DVT/PE	4	4	3	3	3	1	3	
c) DVT/PE and established on anticoagulant therapy	4	4	2	2	2	1	2	
d) Family history (first-degree relatives)	2	2	1	1	1	1	1	
e) Major surgery								
(i) with prolonged immobilization	4	4	2	2	2	1	2	
(ii) without prolonged immobilization	2	2	1	1	1	1	1	
f) Minor surgery without immobilization	1	1	1	1	1	1	1	

* Please consult the clarification column for this classification

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CONDITION	COC/P/R	CIC	POP	DMPA NET-EN	LNG/ETG Implants	Cu- IUD	LNG-IUD	CLARIFICATION		
I = Initiation , C = Continuation, BF = Breastfeeding										
RHEUMATIC DISEASES										
SYSTEMIC LUPUS ERYTHEMATOSUS										
People with SLE are at increased risk of ischemic heart disease, stroke and venous thromboembolism. Categories assigned to such conditions in this guidance 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.										
a) Positive (or unknown) antiphospholipid antibodies	4	4	3	3	3	3	1	1	3	Systemic lupus erythematosus and severe thrombocytopenia for IUDs: Severe thrombocytopenia increases the risk of 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 pre-treatments may be warranted.
b) Severe thrombocytopenia	2	2	2	3	2	2	3*	2*	2*	
c) Immunosuppressive treatment	2	2	2	2	2	2	2	1	2	
d) None of the above	2	2	2	2	2	2	1	1	2	
GESTATIONAL TROPHOBLASTIC DISEASE										
a) Decreasing or undetectable β -hCG levels	1	1	1	1	1	1	3	3		
b) Persistently elevated β -hCG levels or malignant disease	1	1	1	1	1	1	4	4		
VIRAL HEPATITIS										
a) Acute or flare	3/4*	2	3	2	1	1	1	1	1	Viral hepatitis, acute or flare: The category should be assessed according to the severity of the condition.
b) Carrier	1	1	1	1	1	1	1	1	1	
c) Chronic	1	1	1	1	1	1	1	1	1	
CIRRHOSIS										
a) Mild (compensated)	1	1	1	1	1	1	1	1	1	
b) Severe (decompensated)	4	3	3	3	3	3	1	3		

* Please consult the clarification column for this classification

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CONDITION	COC/P/R	CIC	POP	DMPA NET-EN	LNG/ETG Implants	Cu- IUD		LNG-IUD		CLARIFICATION
I = Initiation , C = Continuation, BF = Breastfeeding										
LIVER TUMOURS										
a) Benign	2	2	2	2	2	1		2		
i) Focal nodular hyperplasia										
ii) Hepatocellular adenoma	4	3	3	3	3	1		3		
b) Malignant (hepatoma)	4	3/4	3	3	3	1		3		
DRUG INTERACTIONS										
ANTIRETROVIRAL THERAPY										
						I	C	I	C	
a) Nucleoside reverse transcriptase inhibitors (NRTIs)	1*	1	1	DMPA=1 NET-EN=1	1	2/3*	2*	2/3*	2*	Antiretroviral therapy and hormonal contraception: Antiretroviral drugs have the potential to either decrease or increase the bioavailability of steroid hormones in hormonal contraceptives. Limited data suggest potential drug interactions between many antiretroviral drugs (particularly some non-nucleoside reverse transcriptase inhibitors and ritonavir-boosted protease inhibitors) and hormonal contraceptives. These interactions may alter the safety and effectiveness of both the hormonal contraceptive and the antiretroviral drug. Thus, if a woman on antiretroviral treatment decides to initiate or continue hormonal contraceptive use, the consistent use of condoms is recommended. This is for both preventing HIV transmission and to 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. Antiretroviral therapy and IUDs: There is no known interaction between antiretroviral 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 antiretroviral therapy in which case, both insertion and continuation are classified as Category 2. (See AIDS condition).
b) Non-nucleoside reverse transcriptase inhibitors (NNRTIs)	2*	2*	2*	DMPA=1 NET-EN=2*	2*	2/3*	2*	2/3*	2*	
c) Ritonavir-boosted protease inhibitors	3*	3*	3*	DMPA=1 NET-EN=2*	2*	2/3*	2*	2/3*	2*	

* Please consult the clarification column for this classification

Summary of changes to the third edition of the <i>Medical Eligibility Criteria for Contraceptive Use</i> (changes are noted in bold)								
CONDITION	COC/P/R	CIC	POP	DMPA NET-EN	LNG/ETG Implants	Cu- IUD	LNG-IUD	CLARIFICATION
I = Initiation , C = Continuation, BF = Breastfeeding								
ANTICONVULSANT THERAPY								
a) Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	3*	2	3*	DMPA=1 NET-EN=2*	2*	1	1	<p>Certain anticonvulsants and combined oral contraception: When a COC is chosen, a preparation containing a minimum of 30 µg EE should be used.</p> <p>Certain anticonvulsants and progestogen-only contraception: Although the interaction of certain anticonvulsants with POPs, NET-EN and LNG/ETG implants is not harmful to women, it is likely to reduce the effectiveness of POPs, NET-EN and LNG/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 the use of certain anticonvulsants.</p>
b) Lamotrigine	3*	3	1	1	1	1	1	<p>The recommendation for lamotrigine applies only for situations where lamotrigine monotherapy is taken concurrently with COCs. Anticonvulsant treatment regimens that combine lamotrigine and non-enzyme inducing anti-epileptic drugs (such as sodium valproate) do not interact with COCs.</p>

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CONDITION	COC/P/R	CIC	POP	DMPA NET-EN	LNG/ETG Implants	Cu- IUD	LNG-IUD	CLARIFICATION
I = Initiation , C = Continuation, BF = Breastfeeding								
ANTIMICROBIAL THERAPY								
a) Broad-spectrum antibiotics	1	1	1	1	1	1	1	
b) Antifungals	1	1	1	1	1	1	1	
c) Antiparasitics	1	1	1	1	1	1	1	
d) Rifampicin or rifabutin therapy	3*	2	3*	DMPA=1 NET- EN=2*	2*	1	1	<p>Rifampicin or rifabutin therapy and combined oral contraception: When a COC is chosen, a preparation containing a minimum of 30 µg EE should be used.</p> <p>Rifampicin or rifabutin therapy and progestogen-only contraception: Although the interaction of rifampicin or rifabutin with POPs, NET-EN and LNG/ETG implants is not harmful to women, it is likely to reduce the effectiveness of POPs, NET-EN and LNG/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 unlikely to be decreased by the use of rifampicin or rifabutin.</p>

* Please consult the clarification column for this classification

BARRIER METHODS

For the conditions of 'menarche to < 18 and > 30kg/m² body mass index,' 'DVT/PE and established on anticoagulant therapy,' 'systemic lupus erythematosus,' 'lamotrigine therapy,' 'focal nodular hyperplasia,' 'acute viral hepatitis or flare,' and 'chronic hepatitis,' the barrier methods are classified as a Category 1.

For the condition of 'high risk of HIV,' diaphragm (with spermicide) is a Category 4.

For the conditions of 'HIV-infected' and 'AIDS,' spermicides are a Category 3.

For the condition of 'antiretroviral therapy,' spermicides and diaphragm (with spermicide) are Category 3, with the following Clarification: there is no known drug interaction between ARV therapy and barrier method use. However, 'HIV infection' and 'AIDS' as conditions are classified as Category 3 for spermicides and diaphragms. (See AIDS condition above.)

FEMALE SURGICAL STERILIZATION

The condition of 'DVT/PE and established on anticoagulant therapy' has been added for female surgical sterilization and is a Category S.

The conditions of 'systemic lupus erythematosus with positive (or unknown) antiphospholipid antibodies,' 'systemic lupus erythematosus with severe thrombocytopenia,' and 'systemic lupus erythematosus on immunosuppressive treatment' have been added for female surgical sterilization and are Category S. The condition of 'systemic lupus erythematosus with none of the above complications' has also been added for female surgical sterilization and is a Category C.

The conditions 'chronic viral hepatitis' and 'focal nodular hyperplasia' have been added for female surgical sterilization and are a Category A.

For the condition 'mild (compensated) cirrhosis,' female surgical sterilization is a Category A.

Obesity

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Deep venous thrombosis/pulmonary embolism/anticoagulant therapy

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Systemic Lupus Erythematosus

14. Bernatsky S, Ramsey-Goldman R, Gordon C, Joseph L, Boivin JF, Rajan R, et al. Factors associated with abnormal Pap results in systemic lupus erythematosus. *Rheumatology (Oxford)*, 2004; 43:1386–1389.
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Viral hepatitis and cirrhosis

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Liver tumours

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Antiretroviral therapy

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Conflicts of interest: Dr A. Glasier works at a clinic that receives research funding support from four companies that manufacture various contraceptive products. Dr J. Shelton has shareholdings in a pharmaceutical company that manufactures antiretroviral therapies. Dr E. Weisberg receives funding for contraceptive research from four contraceptive manufacturers. She also serves on the advisory board of a manufacturer of the vaccine against human papillomavirus and on an advisory board for contraceptive education funded by a contraceptive manufacturer.

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