



## Complete Summary

---

### GUIDELINE TITLE

Elective and risk-reducing salpingo-oophorectomy.

### BIBLIOGRAPHIC SOURCE(S)

American College of Obstetricians and Gynecologists (ACOG). Elective and risk-reducing salpingo-oophorectomy. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2008 Jan. 11 p. (ACOG practice bulletin; no. 89). [82 references]

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: American College of Obstetricians and Gynecologists (ACOG). Prophylactic oophorectomy. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 1999 Sep. 7 p. (ACOG practice bulletin; no. 7).

## COMPLETE SUMMARY CONTENT

SCOPE  
METHODOLOGY - including Rating Scheme and Cost Analysis  
RECOMMENDATIONS  
EVIDENCE SUPPORTING THE RECOMMENDATIONS  
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS  
CONTRAINDICATIONS  
QUALIFYING STATEMENTS  
IMPLEMENTATION OF THE GUIDELINE  
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT  
CATEGORIES  
IDENTIFYING INFORMATION AND AVAILABILITY  
DISCLAIMER

## SCOPE

### DISEASE/CONDITION(S)

Ovarian cancer

### GUIDELINE CATEGORY

Counseling  
Evaluation

Prevention  
Risk Assessment

## **CLINICAL SPECIALTY**

Medical Genetics  
Obstetrics and Gynecology  
Oncology  
Preventive Medicine  
Surgery

## **INTENDED USERS**

Physicians

## **GUIDELINE OBJECTIVE(S)**

- To aid practitioners in making decisions about appropriate risk-reducing salpingo-oophorectomy
- To weigh the risks and benefits of risk-reducing salpingo-oophorectomy and provide a framework for the evaluation and counseling of patients who would be candidates for this procedure

## **TARGET POPULATION**

Women at high risk of developing ovarian cancer

## **INTERVENTIONS AND PRACTICES CONSIDERED**

1. Risk-reducing salpingo-oophorectomy
2. Estrogen therapy
3. Genetic counseling and evaluation for BRCA testing

## **MAJOR OUTCOMES CONSIDERED**

- Risk factors for ovarian cancer including genetic factors
- Operative risks at the time of hysterectomy
- Adverse effects of estrogen therapy

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Hand-searches of Published Literature (Primary Sources)  
Hand-searches of Published Literature (Secondary Sources)  
Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

The MEDLINE database, the Cochrane Library, and the American College of Obstetricians and Gynecologists (ACOG's) own internal resources and documents were used to conduct a literature search to locate relevant articles published between January 1985 and June 2007. The search was restricted to articles published in the English language. Priority was given to articles reporting results of original research, although review articles and commentaries also were consulted. Abstracts of research presented at symposia and scientific conferences were not considered adequate for inclusion in this document. Guidelines published by organizations or institutions such as the National Institutes of Health and ACOG were reviewed, and additional studies were located by reviewing bibliographies of identified articles.

## **NUMBER OF SOURCE DOCUMENTS**

Not stated

## **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Weighting According to a Rating Scheme (Scheme Given)

## **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

Studies were reviewed and evaluated for quality according to the method outlined by the U.S. Preventive Services Task Force.

**I** Evidence obtained from at least one properly designed randomized controlled trial

**II-1** Evidence obtained from well-designed controlled trials without randomization

**II-2** Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group

**II-3** Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence

**III** Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

## **METHODS USED TO ANALYZE THE EVIDENCE**

Systematic Review

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Not stated

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

## **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Analysis of available evidence was given priority in formulating recommendations. When reliable research was not available, expert opinions from obstetrician-gynecologists were used. See also the "Rating Scheme for the Strength of Recommendations" field regarding Grade C recommendations.

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Based on the highest level of evidence found in the data, recommendations are provided and graded according to the following categories:

### **Levels of Recommendations**

- A. The recommendations are based on good and consistent scientific evidence.
- B. The recommendations are based on limited or inconsistent scientific evidence.
- C. The recommendations are based primarily on consensus and expert opinion.

## **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

## **METHOD OF GUIDELINE VALIDATION**

Internal Peer Review

## **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

Practice Bulletins are validated by two internal clinical review panels composed of practicing obstetrician-gynecologists generalists and sub-specialists. The final guidelines are also reviewed and approved by the American College of Obstetricians and Gynecologists (ACOG) Executive Board.

# **RECOMMENDATIONS**

## **MAJOR RECOMMENDATIONS**

The grades of evidence (I-III) and levels of recommendations (A-C) are defined at the end of "Major Recommendations" field.

**The following conclusion is based on good and consistent scientific evidence (Level A):**

- In women ages 50 to 79 years who have had a hysterectomy, use of estrogen therapy has shown no increased risk of breast cancer or heart disease with up to 7.2 years of use.

**The following recommendation is based on limited or inconsistent scientific evidence (Level B):**

- Bilateral salpingo-oophorectomy should be offered to women with BRCA1 and BRCA2 mutations after completion of childbearing.

**The following recommendations are based primarily on consensus and expert opinion (Level C):**

- Women with family histories suggestive of BRCA1 and BRCA2 mutations should be referred for genetic counseling and evaluation for BRCA testing.
- For women with an increased risk of ovarian cancer, risk-reducing salpingo-oophorectomy should include careful inspection of the peritoneal cavity, pelvic washings, removal of the fallopian tubes, and ligation of the ovarian vessels at the pelvic brim.
- Strong consideration should be made for retaining normal ovaries in premenopausal women who are not at increased genetic risk of ovarian cancer.
- Given the risk of ovarian cancer in postmenopausal women, ovarian removal at the time of hysterectomy should be considered for these women.
- Women with endometriosis, pelvic inflammatory disease, and chronic pelvic pain are at higher risk of reoperation; consequently, the risk of subsequent ovarian surgery if the ovaries are retained should be weighed against the benefit of ovarian retention in these patients.

**Definitions:**

**Grades of Evidence**

**I** Evidence obtained from at least one properly designed randomized controlled trial

**II-1** Evidence obtained from well-designed controlled trials without randomization

**II-2** Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group

**II-3** Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments could also be regarded as this type of evidence.

**III** Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

**Levels of Recommendations**

- A. The recommendations are based on good and consistent scientific evidence.
- B. The recommendations are based on limited or inconsistent scientific evidence.
- C. The recommendations are based primarily on consensus and expert opinion.

**CLINICAL ALGORITHM(S)**

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Appropriate use of salpingo-oophorectomy to decrease the risk of ovarian cancer and to avoid possible morbidities and future surgery related to benign ovarian neoplasms, endometriosis, and pelvic pain

### POTENTIAL HARMS

- Clinical symptoms related to oophorectomy (e.g., hot flashes, vaginal dryness, irritability, mood swings). Other possible disadvantages include changes in self-image and decreased libido attributed to loss of ovarian androgen production (Estrogen therapy may relieve most of the symptoms related to oophorectomy)
- Use of estrogen therapy in women ages 50 to 79 years (average age, 63 years) who have had a hysterectomy, demonstrated an increased risk of thromboembolic disease and stroke.

## CONTRAINDICATIONS

### CONTRAINDICATIONS

Women at very high risk of ovarian carcinoma—specifically, women with documented hereditary breast and ovarian cancer susceptibility or hereditary nonpolyposis colorectal cancer (hereditary nonpolyposis colorectal cancer [HNPCC] or Lynch syndrome)—are not candidates for ovarian preservation. Referral to a certified genetic counselor can help clarify risk of ovarian cancer in women with suggestive personal or family histories. Other contraindications to ovarian preservation include invasive ovarian or endometrial carcinomas. Malignant germ cell tumors, stromal tumors, and borderline ovarian tumors do not mandate bilateral salpingo-oophorectomy in women desiring fertility preservation.

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

These guidelines should not be construed as dictating an exclusive course of treatment or procedure. Variations in practice may be warranted based on the

needs of the individual patient, resources, and limitations unique to the institution or type of practice.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

### IOM DOMAIN

Effectiveness  
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

American College of Obstetricians and Gynecologists (ACOG). Elective and risk-reducing salpingo-oophorectomy. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2008 Jan. 11 p. (ACOG practice bulletin; no. 89). [82 references]

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

1999 Sep (revised 2008 Jan)

### GUIDELINE DEVELOPER(S)

American College of Obstetricians and Gynecologists - Medical Specialty Society

### SOURCE(S) OF FUNDING

American College of Obstetricians and Gynecologists (ACOG)

### GUIDELINE COMMITTEE

American College of Obstetricians and Gynecologists (ACOG) Committee on Practice Bulletins-Obstetrics

#### **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

Not stated

#### **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Not stated

#### **GUIDELINE STATUS**

This is the current release of the guideline.

This guideline updates a previous version: American College of Obstetricians and Gynecologists (ACOG). Prophylactic oophorectomy. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 1999 Sep. 7 p. (ACOG practice bulletin; no. 7).

#### **GUIDELINE AVAILABILITY**

Electronic copies: None available

Print copies: Available for purchase from the American College of Obstetricians and Gynecologists (ACOG) Distribution Center, PO Box 4500, Kearneysville, WV 25430-4500; telephone, 800-762-2264, ext. 192; e-mail: [sales@acog.org](mailto:sales@acog.org). The ACOG Bookstore is available online at the [ACOG Web site](#).

#### **AVAILABILITY OF COMPANION DOCUMENTS**

None available

#### **PATIENT RESOURCES**

None available

#### **NGC STATUS**

This NGC summary was completed by ECRI on January 14, 2005. This summary was updated by ECRI Institute on April 21, 2008.

#### **COPYRIGHT STATEMENT**

This NGC summary is based on the original guideline, which is subject to the guideline developer's copyright restrictions.



## DISCLAIMER

### NGC DISCLAIMER

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at <http://www.guideline.gov/about/inclusion.aspx>.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

© 1998-2008 National Guideline Clearinghouse

Date Modified: 11/3/2008

