The Utility of and Indications for Routine Pelvic Examination

**ABSTRACT:** The pelvic examination has long been considered a fundamental component of the well-woman visit, and many women and gynecologic care providers view this visit as an opportunity to discuss sexual and reproductive health issues. Traditionally, a pelvic examination is performed for asymptomatic women as a screening tool for gynecologic cancer, infection, and asymptomatic pelvic inflammatory disease; some obstetrician–gynecologists and patients consider it important in detecting subclinical disease, despite evidence to the contrary. Given changes in screening recommendations and the ability to screen for sexually transmitted infections using less-invasive methods, reevaluation of the role of the pelvic examination for asymptomatic, nonpregnant women is warranted. A limited number of studies have evaluated the benefits and harms of a screening pelvic examination for detection of ovarian cancer, bacterial vaginosis, trichomoniasis, and genital herpes. Data from these studies are inadequate to support a recommendation for or against performing a routine screening pelvic examination among asymptomatic, nonpregnant women who are not at increased risk of any specific gynecologic condition. It is recommended by the American College of Obstetricians and Gynecologists that pelvic examinations be performed when indicated by medical history or symptoms. Women with current or a history of cervical dysplasia, gynecologic malignancy, or in utero diethylstilbestrol exposure should be screened and managed according to guidelines specific to those gynecologic conditions. Based on the current limited data on potential benefits and harms and expert opinion, the decision to perform a pelvic examination should be a shared decision between the patient and her obstetrician–gynecologist or other gynecologic care provider.

**Recommendations and Conclusions**

The American College of Obstetricians and Gynecologists (ACOG) makes the following recommendations and conclusions regarding the use of and indications for the pelvic examination:

- Pelvic examinations should be performed when indicated by medical history or symptoms.
- Based on the current limited data on potential benefits and harms and expert opinion, the decision to perform a pelvic examination should be a shared decision between the patient and her obstetrician–gynecologist or other gynecologic care provider.
- A limited number of studies have evaluated the benefits and harms of a screening pelvic examination for detection of ovarian cancer, bacterial vaginosis, trichomoniasis, and genital herpes. Data from these studies are inadequate to support a recommendation for or against performing a routine screening pelvic examination among asymptomatic, nonpregnant women who are not at increased risk of any specific gynecologic condition. Data on its effectiveness for screening for other gynecologic conditions are lacking.
- Women with current or a history of cervical dysplasia, gynecologic malignancy, or in utero diethylstilbestrol exposure should be screened and...
managed according to guidelines specific to those gynecologic conditions.

- After reviewing risks and benefits, the pelvic examination also may be performed if a woman expresses a preference for the examination.
- Regardless of whether a pelvic examination is performed, a woman should see her obstetrician–gynecologist at least once a year for well-woman care.
- A pelvic examination is not necessary before initiating or prescribing contraception, other than an intrauterine device, or to screen for sexually transmitted infections.

Background

In 2015, 52 million pelvic examinations were performed in the United States (1). The pelvic examination has long been considered a fundamental component of the well-woman visit, and many women and gynecologic care providers view this visit as an opportunity to discuss sexual and reproductive health issues (2). Traditionally, a pelvic examination is performed for asymptomatic women as a screening tool for gynecologic cancer, infection, and asymptomatic pelvic inflammatory disease; some obstetrician–gynecologists and patients consider it important in detecting subclinical disease, despite evidence to the contrary (3–5). Given changes in screening recommendations and the ability to screen for sexually transmitted infections (STIs) using less-invasive methods (eg, less frequent cervical cancer screening; the option for urine or vaginal swab-based testing for gonorrhea, chlamydia infection, and trichomoniasis), reevaluation of the role of the pelvic examination for asymptomatic, nonpregnant women is warranted (6, 7). A pelvic examination is considered to be “routine” or a “screening” examination only when used as a screening tool to evaluate an asymptomatic woman. This document does not address the pelvic examination for pregnant women. These recommendations also exclude asymptomatic women who present for a well-woman visit because pelvic examinations on such women are performed for diagnostic purposes. Additionally, these recommendations do not include pelvic examinations among women who, after discussion with their gynecologic care provider or after an issue is identified in a thorough medical history, are found to have symptoms. These recommendations refer to the truly asymptomatic woman. Throughout this Committee Opinion, pelvic examination will refer to the following components: assessment of the external genitalia; internal speculum examination of the vagina and cervix; bimanual palpation of the adnexa, uterus, and bladder; and, sometimes, rectovaginal examination.

A 2013 nationwide survey of more than 500 obstetrician–gynecologists that assessed physician practices and attitudes regarding the pelvic examination found that, when presented with hypothetical patient cases, nearly all physicians (87–99%) would perform bimanual pelvic examinations (with or without rectal examination) for asymptomatic adult women of all ages (8). The obstetrician–gynecologists cited adherence to standard medical practices (45%), patient reassurance (49%), detection of ovarian cancer (47%), and identification of benign uterine (59%) and ovarian (54%) conditions as “very important” reasons for performing pelvic examinations (8). The results of this survey highlight the need for education regarding routine pelvic examinations for the detection of the following conditions: gynecologic cancer, pelvic inflammatory disease, asymptomatic bacterial vaginosis, genital herpes, trichomoniasis, and other benign gynecologic conditions.

Studies on the Effectiveness of the Pelvic Examination

In its 2017 systemic review, the United States Preventive Services Task Force (USPSTF) noted that, overall, data evaluating the accuracy or effectiveness of screening pelvic examination (defined by the USPSTF as including any of the following components, alone or in combination: assessment of the external genitalia, internal speculum examination, bimanual palpation, and rectovaginal examination) are limited (9). Although the review was designed to include any gynecologic cancer or condition (excluding cervical cancer, gonorrhea, and chlamydial infection, which are covered by other USPSTF screening recommendations), ultimately, it only found limited evidence on its accuracy to detect four specific conditions: 1) ovarian cancer, 2) bacterial vaginosis, 3) genital herpes, and 4) trichomoniasis. The USPSTF concluded that there is insufficient evidence to make a recommendation regarding screening pelvic examinations for asymptomatic, nonpregnant women (2). The USPSTF identified only two studies (n = 930) on bacterial vaginosis, one study (n = 779) on genital herpes, and one study (n = 779) on trichomoniasis. These four studies investigated women presenting to either a hospital or clinic for STIs, thus participants more likely represented higher-risk, symptomatic women. Prevalence rates were 38.7–47% for bacterial vaginosis, 47.8% for genital herpes, and 15.2% for trichomoniasis. The Centers for Disease Control and Prevention does not recommend the treatment of asymptomatic bacterial vaginosis (7).

To evaluate the effectiveness of screening for ovarian cancer, the Prostate, Lung, Colorectal, and Ovarian Cancer trial randomized 78,216 women aged 55–74 years to undergo either annual screening (with annual CA 125 and transvaginal ultrasonography) or usual care (women received their usual medical care only) (10). The bimanual examination, which was originally part ofannual screening procedures, was discontinued because no cases of cancer were detected solely by ovarian palpation. In 2014, the American College of Physicians (ACP) assessed
the utility of a screening pelvic examination (defined by the ACP as inspection of the external genitalia; speculum examination of the vagina and cervix; bimanual examination of the adnexa, uterus, ovaries, and bladder; and sometimes rectal or rectovaginal examination) for the detection of cancer (other than cervical), pelvic inflammatory disease, or other benign gynecologic conditions in asymptomatic, nonpregnant adolescent girls and adult women (4, 11). The ACP concluded that performing pelvic examinations did not decrease ovarian cancer morbidity and mortality rates. Although there are clear data that the bimanual examination is not useful for screening asymptomatic women for ovarian cancer, more data on the benefits and harms of the pelvic examination for other gynecologic pathology are needed.

**Potential Benefits of the Screening Pelvic Examination for Asymptomatic Women**

Based on expert opinion, potential benefits of the pelvic examination include early detection of treatable gynecologic conditions before symptoms occurring (eg, vulvar or vaginal cancer), as well as incidental findings such as dermatologic changes and foreign bodies. Additionally, screening pelvic examinations in the context of a well-woman visit (12) may allow gynecologists to explain a patient’s anatomy, reassure her of normalcy, and answer her specific questions, thus establishing open communication between the patient and her gynecologic care provider. Communication between the patient and her obstetrician–gynecologist may help elucidate gynecology that the patient may not have recognized as abnormal.

Although data on patient preference are limited, one study of 262 adult women (aged 21–65 years) reported that 62% of respondents believed that the bimanual examination helped establish open communication with their gynecologic care provider, and 82% believed that the examination provided reassurance about their health (13). However, nearly one half of the respondents were unsure of its purpose when asked “Do you know why this examination is performed?”

**Potential Harms of the Screening Pelvic Examination for Asymptomatic Women**

The data on potential harms of the screening pelvic examination are limited and of low quality. The ACP found low-quality evidence that the screening pelvic examination leads to harms such as fear, anxiety, embarrassment (reports ranged from 10% to 80% of women) or pain and discomfort (from 11% to 60%). It found no studies that specifically investigated indirect harms such as false reassurance, overdiagnosis, overtreatment, or diagnostic procedure-related harms (11). The USPSTF found little evidence on the harms of screening and noted that “very few studies reported false-positive and false-negative rates for other gynecologic conditions” (excluding cervical cancer, gonorrhea, and chlamydia infection) and “no studies quantified the amount of anxiety associated with screening pelvic examinations” (2).

**Recommendations Regarding Pelvic Examinations**

A limited number of studies have evaluated the benefits and harms of a screening pelvic examination for detection of ovarian cancer, bacterial vaginosis, trichomoniasis, and genital herpes. Data from these studies are inadequate to support a recommendation for or against performing a routine screening pelvic examination among asymptomatic, nonpregnant women who are not at increased risk of any specific gynecologic condition. Data on its effectiveness for screening for other gynecologic conditions are lacking. Based on the current limited data on potential benefits and harms and expert opinion, the decision to perform a pelvic examination should be a shared decision between the patient and her obstetrician–gynecologist or other gynecologic care provider. Counseling should include a discussion about the uncertainty of the benefits and harms of the procedure and the lack of evidence for the screening pelvic examination. A study of 452 women (aged 21–65 years) evaluating the effects of professional societies’ conflicting recommendations on the screening pelvic examination reported that 94% of women thought the potential benefits and harms of the pelvic examination should be discussed before an examination takes place (14).

It is recommended by ACOG that pelvic examinations be performed when indicated by medical history or symptoms. Examples of symptoms that indicate a woman should receive a pelvic examination include but are not limited to the following: abnormal bleeding, dyspareunia, pelvic pain, sexual dysfunction, vaginal dryness, vaginal bulge, urinary issues, or inability to insert a tampon. Other indications include patients undergoing a pelvic procedure (eg, endometrial biopsy or intrauterine device placement). Women with current or a history of cervical dysplasia, gynecologic malignancy, or in utero diethylstilbestrol exposure should be screened and managed according to guidelines specific to those gynecologic conditions (15–18). Obstetrician–gynecologists should make efforts to obtain accurate and complete medical, surgical, and family histories and to conduct thorough reviews of systems as part of a well-woman visit (12). Some women may not recognize that certain signs or symptoms are truly abnormal. These signs and symptoms may be interpreted as “normal” for them, when, in fact, they should prompt evaluation, which may include a pelvic examination.

**Shared Decision Making**

When an asymptomatic, nonpregnant patient presents for a well-woman visit, the obstetrician–gynecologist should explain the lack of data and potential benefits
Table 1. Pelvic Examination Recommendations

<table>
<thead>
<tr>
<th>Organization</th>
<th>Recommendation</th>
<th>Definition of Pelvic Examination</th>
<th>Evidence Review</th>
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<tr>
<td>American College of Obstetricians and Gynecologists (2018)</td>
<td>Obstetrician–gynecologists and other gynecologic care providers should counsel asymptomatic, nonpregnant women about the benefits, harms, and lack of data. The patient and gynecologic care provider should then decide together if an examination will be performed.</td>
<td>Assessment of the external genitalia; internal speculum examination of the vagina and cervix, bimanual palpation of the adnexa, uterus, and bladder; and sometimes rectovaginal examination</td>
<td>Reviewed literature on health benefits, accuracy, and harms of the screening pelvic examination for gynecologic conditions</td>
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<tr>
<td>American College of Physicians* (2014)</td>
<td>Recommends against performing screening pelvic examination in asymptomatic, nonpregnant, adult women</td>
<td>Inspection of the external genitalia; speculum examination of the vagina and cervix; bimanual examination of the adnexa, uterus, ovaries, and bladder; and sometimes rectal or rectovaginal examination</td>
<td>Evaluated the diagnostic accuracy, benefits, and harms of pelvic examination in asymptomatic, nonpregnant, average-risk adult women. Cervical cancer screening was not included. No studies that investigated the morbidity or mortality benefits of screening pelvic examination for any condition were identified. Diagnostic accuracy of pelvic examination for ovarian cancer: three cohort studies (n=5,633) Benefits of pelvic examination for detection of malignant or benign conditions: no studies Direct harms: pain or discomfort: eight studies (n=4,579); fear, embarrassment, or anxiety: seven studies (n=10,702) Indirect harms: false reassurance, overdiagnosis, overtreatment, or diagnostic procedure-related harms: no studies; indirect evidence from one cohort study (n=2,000)</td>
</tr>
<tr>
<td>American Academy of Family Physicians (2017)</td>
<td>Recommends against screening pelvic exams in asymptomatic women</td>
<td>N/A</td>
<td>Endorses American College of Physicians recommendations; no independent review</td>
</tr>
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<td>Society of Gynecologic Oncology (2016)</td>
<td>Offer pelvic examination to every patient presenting for a well-woman examination in the context of a balanced discussion of the risks and benefits</td>
<td>N/A</td>
<td>Endorses American College of Physicians recommendations</td>
</tr>
<tr>
<td>U.S. Preventive Services Task Force (2017)</td>
<td>Current evidence is insufficient to assess the balance of benefits and harms of performing screening pelvic examinations in asymptomatic, nonpregnant adult women. (I grade)</td>
<td>Any of the following components, alone or in combination: assessment of the external genitalia, internal speculum examination, bimanual palpation, and rectovaginal examination</td>
<td>Systematically reviewed literature on health benefits, accuracy, and harms of the screening pelvic examination for gynecologic conditions No trials examined the effectiveness of the pelvic examination in reducing all-cause mortality, reducing cancer-specific and disease-specific morbidity and mortality, or improving quality of life. Eight studies reported accuracy for the screening pelvic examination: ovarian cancer (four studies, n=26,432); bacterial vaginosis (two studies, n=930); trichomoniasis (one study, n=778); and genital herpes (one study, n=771).</td>
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and harms of the routine pelvic examination and discuss whether the examination should be performed. For topics that are graded an "I" for insufficient evidence, the USPSTF recommends that if the service is offered, patients should understand the uncertainty about the balance of benefits and harms (19).

The American College of Obstetricians and Gynecologists’ Committee Opinion No. 587, Effective Patient-Physician Communication, provides information on different types of communication that should be considered by the obstetrician–gynecologist and can be applied in this setting (20). One of the concepts is shared decision making, a process whereby patients and obstetrician–gynecologists share information, express treatment preferences, and agree on a treatment plan (20). When speaking with the patient, the obstetrician–gynecologist should consider her health literacy (the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions) (21, 22). Also, after reviewing risks and benefits, the obstetrician–gynecologist may perform the pelvic examination if a woman expresses a preference for the examination.

Recommendations From Other Organizations
The lack of evidence about the use of the pelvic examination has led to the development of conflicting guidelines from various medical organizations. Table 1 outlines recommendations for the routine pelvic examination from ACOG, ACP, the American Academy of Family Physicians, the Society of Gynecologic Oncology, and the USPSTF. Additionally, the Centers for Disease Control and Prevention does not support performing a pelvic examination to screen for STIs or before initiating contraception, other than an intrauterine device, in otherwise healthy, asymptomatic individuals (7, 23, 24). Screening for gonorrhea, chlamydial infection, and trichomoniasis can be accomplished with urine-based testing or a vaginal swab (3, 7). However, urine-based testing may detect fewer cases of gonorrhea and chlamydial infections when compared with vaginal and endocervical swab samples (25).

Conclusion
Regardless of whether a pelvic examination is performed, a woman should see her obstetrician–gynecologist at least once a year for well-woman care (12). A preventive service visit also provides an opportunity for the patient and her obstetrician–gynecologist to discuss whether a pelvic examination is appropriate for her. Screening for gynecologic cancer and STIs are common reasons physicians report performing a pelvic examination in asymptomatic, nonpregnant patients. However, studies show that pelvic examinations do not decrease ovarian cancer morbidity and mortality rates (4, 10). A pelvic examination is not necessary before initiating or prescribing contraception, other than an intrauterine device, or to screen for STIs. However, a thorough history should be taken from each patient to ensure that there are no indications for performing a pelvic examination. If a patient is found to be asymptomatic, a discussion between the obstetrician–gynecologist and patient regarding the potential risks and benefits of performing a pelvic examination should ensue. Whether to perform a pelvic examination should be based on shared decision making.

References

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