



Q/ Do annual pelvic exams benefit asymptomatic women who receive regular Pap smears?

EVIDENCE-BASED ANSWER

A | **NO EVIDENCE EXISTS** to support a clinical benefit from annual pelvic examinations for asymptomatic women who receive Pap smears every 3 to 5 years. However, the American College of Obstetricians and Gynecologists (ACOG) committee on gynecologic practice recommends annual pelvic exams (strength of recommendation [SOR]: **C**, expert opinion).

Urine testing alone reliably diagnoses gonorrhea and chlamydia (SOR: **A**, sys-

tematic review of cohort studies).

Pelvic examinations unreliably detect adnexal masses (SOR: **B**, single cohort study); pelvic exams accompanied by ultrasound fail to affect outcomes in ovarian cancer screening (SOR: **B**, cohort studies).

Pelvic exams aren't necessary before prescribing oral contraceptive pills (OCPs) (SOR: **C**, expert opinion).

Vulvar carcinoma has a low prevalence and is usually symptomatic (SOR: **B**, ecologic study and a case series).

Evidence summary

A systematic review and meta-analysis included 29 studies that compared the sensitivity and specificity of nucleic acid amplification tests on specimens collected invasively from the cervix or urethra with noninvasively collected urine specimens.¹ Studies included both asymptomatic and symptomatic patients. Reference standards varied and included cervical culture, enzyme immunoassay, direct fluorescent antibody, ligase chain reaction, and positive results on 2 of 3 nucleic acid amplification assays.

The sensitivity and specificity of chlamydia and gonorrhea detection didn't differ between urine and cervical specimens. The pooled sensitivity and specificity for polymerase chain reaction urine samples were 83.3% (95% confidence interval [CI], 77.7%-88.9%) and 99.5% (CI, 99.3%-99.8%), respectively, and for cervical samples 85.5% (CI, 80.3%-90.6%) and 99.6% (CI, 99.4%-99.8%), respectively.¹

Pelvic exams detect adnexal masses, but not reliably

A prospective cohort of 127 women undergoing pelvic surgery had preoperative bimanual exams under anesthesia to detect an adnexal mass.² The gold standard for detection was findings at surgery. The woman had a high prevalence (20%) of ovarian masses. Indications for surgery included diagnosis, sterilization, and suspected malignancy.

When the preoperative bimanual examination detected a left adnexal mass, the odds of finding one at surgery increased 2.8 times, whereas when the exam was normal the odds decreased by 0.8 (positive predictive value [PPV]=0.64; 95% CI, 0.45-0.83). Conversely, the preoperative examination failed to correctly predict a right adnexal mass regardless of the result; the likelihood ratio for both normal and abnormal right adnexal examinations was 1 (PPV=0.26; 95% CI, 0.12-0.47).

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➤ **An ACOG committee recommends annual exams, even though it found no evidence to support an annual pelvic exam for asymptomatic, low-risk patients.**

What about pelvic exams with ultrasound?

An investigation of transvaginal ultrasonography (TVUS) from November 1987 to January 1991 screened a cohort of 1300 asymptomatic postmenopausal women for an ovarian tumor.³ To be eligible for the study, subjects had to have been without menses for at least 6 months and have no history of a pelvic tumor. Each woman underwent both a pelvic exam and TVUS.

TVUS found that 33 of the women had abnormal ovarian size and morphology when compared with normal standards. Twenty-seven of the 33, who had abnormalities that persisted longer than 1 month, underwent exploratory laparotomy. Ovarian enlargement also was apparent on clinical examination in 10 patients.

Of the 27 patients who underwent surgery, 2 had primary ovarian carcinomas. Significantly, both women had documented normal pelvic examinations on screening.

Another cohort trial conducted between October 1984 and July 1987 studied 801 women ages 40 to 70 years who were at high risk for ovarian cancer.⁴ Risk factors included nulliparity; symptoms such as abdominal pain, urinary frequency, or irregular bleeding; a personal history of cancer; and a family history of ovarian, breast, or endometrial cancer.

The women underwent both pelvic examination and abdominal ultrasound scanning. Fifty-one patients had abnormal pelvic examinations but normal sonograms. None of the 51 patients, who were followed to the end of the study, developed evidence of ovarian carcinoma. Abnormal abdominal ultrasound scans in 163 patients resulted in 3 diagnoses of malignancy. The 3 patients had normal pelvic examinations.

A pelvic exam isn't needed before prescribing hormonal contraception

A 2001 *JAMA* literature review addressed pelvic exams as a prerequisite for administering hormonal contraceptives.⁵ Investigators identified consensus statements, policy statements, and reviews on the subject and contacted major health associations such as the World Health Organization for their recommendations.

Despite a lack of evidence, these expert sources concluded that a pelvic exam isn't necessary to identify conditions in which OCPs are contraindicated (pregnancy, breast cancer, hypertension, and thromboembolic disease). Medical history and blood pressure measurement provide adequate screening.

Vulvar cancer is rare and usually symptomatic

Vulvar disease is uncommon and almost always symptomatic. The United Kingdom national cancer registry found an incidence of 3.7 per 100,000.⁶ A prospective study of 102 women presenting with squamous cell carcinoma of the vulva showed that 94% reported a history of symptomatic vulvar irritation.⁷ Eighty-eight percent had had symptoms for longer than 6 months.

Recommendations

Regarding screening for gonorrhea and chlamydia, the United States Preventive Services Task Force (USPSTF) states that newer tests, including nucleic acid amplification tests of urine, have improved sensitivity and comparable specificity when compared with cervical culture.^{8,9}

The USPSTF recommends against screening for ovarian cancer in general, (Grade D recommendation: no net benefit or the harms outweigh the benefits). The Task Force states that the sensitivity of pelvic examination in detecting ovarian cancer is unknown based on several ultrasound studies.¹⁰

A 2012 ACOG committee opinion recommends that an annual pelvic examination remain a part of the well-woman visit even though the committee found no evidence in support of an annual exam for asymptomatic, low-risk patients.¹¹ The committee notes that patients and providers should discuss the decision to perform a pelvic exam annually. **JFP**

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