Primary Screening for Breast Cancer With Conventional Mammography: Clinical Summary

<table>
<thead>
<tr>
<th>Population</th>
<th>Women aged 40 to 49 y</th>
<th>Women aged 50 to 74 y</th>
<th>Women aged ≥75 y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>The decision to start screening should be an individual one. Grade: C</td>
<td>Screen every 2 years. Grade: B</td>
<td>No recommendation. Grade: I statement (insufficient evidence)</td>
</tr>
</tbody>
</table>

**Risk Assessment**

These recommendations apply to asymptomatic women aged ≥40 y who do not have preexisting breast cancer or a previously diagnosed high-risk breast lesion and who are not at high risk for breast cancer because of a known underlying genetic mutation (such as a *BRCA1* or *BRCA2* gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age. Increasing age is the most important risk factor for most women.

**Screening Tests**

Conventional digital mammography has essentially replaced film mammography as the primary method for breast cancer screening in the United States. Conventional digital screening mammography has about the same diagnostic accuracy as film overall, although digital screening seems to have comparatively higher sensitivity but the same or lower specificity in women age <50 y.

**Starting and Stopping Ages**

For women who are at average risk for breast cancer, most of the benefit of mammography results from biennial screening during ages 50 to 74 y. While screening mammography in women aged 40 to 49 y may reduce the risk for breast cancer death, the number of deaths averted is smaller than that in older women and the number of false-positive results and unnecessary biopsies is larger. The balance of benefits and harms is likely to improve as women move from their early to late 40s.

**Screening Interval**

For most women, biennial mammography screening provides the best overall balance of benefit and harms.

**Balance of Benefits and Harms**

- The net benefit of screening mammography in women aged 40 to 49 y, while positive, is small.
- The net benefit of screening mammography in women aged 50 to 74 y is moderate.
- Evidence on mammography screening in women aged ≥75 y is insufficient, and the balance of benefits and harms cannot be determined.

**Other Relevant USPSTF Recommendations**

The USPSTF has made recommendations about the use of medications to reduce women’s risk for breast cancer, as well as risk assessment, genetic counseling, and genetic testing for *BRCA1*- or *BRCA2*-related cancer (including breast cancer). These recommendations are available on the USPSTF Web site ([www.uspreventiveservicestaskforce.org](http://www.uspreventiveservicestaskforce.org)).
## Screening for Breast Cancer With Methods Other Than Conventional Mammography: Clinical Summary

<table>
<thead>
<tr>
<th>Screening Method</th>
<th>Primary screening with DBT</th>
<th>Adjunctive screening with breast ultrasonography, MRI, DBT, or other methods in women who have dense breasts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommendation</strong></td>
<td>No recommendation. Grade: I statement (insufficient evidence)</td>
<td>No recommendation. Grade: I statement (insufficient evidence)</td>
</tr>
</tbody>
</table>

**Benefits**
- From the limited data available, DBT seems to reduce recall rates (i.e., follow-up for additional imaging or testing) and increase cancer detection rates compared with conventional digital mammography alone.
- Limited data suggests that ultrasonography or MRI will detect additional breast cancer in women who have dense breasts. DBT also detects additional breast cancer in the short term.

**Harms**
- As currently practiced in most settings, DBT exposes women to about twice the amount of radiation as conventional digital mammography. Current study designs cannot determine the degree to which the additional cases of cancer detected would have become clinically significant (i.e., the degree of overdiagnosis).
- Most positive adjunctive breast cancer screening test results are false positive.

**Balance of Benefits and Harms**
- Evidence is insufficient, and the balance of benefits and harms cannot be determined.
- Evidence is insufficient, and the balance of benefits and harms cannot be determined.

For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, please go to [www.uspreventiveservicestaskforce.org](http://www.uspreventiveservicestaskforce.org).
## Screening for Cervical Cancer

**Clinical Summary of U.S. Preventive Services Task Force Recommendation**

### Population

<table>
<thead>
<tr>
<th>Population</th>
<th>Women ages 21 to 65</th>
<th>Women ages 30 to 65</th>
<th>Women younger than age 21</th>
<th>Women older than age 65 who have had adequate prior screening and are not high risk</th>
<th>Women after hysterectomy with removal of the cervix and with no history of high-grade precancer or cervical cancer</th>
<th>Women younger than age 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>Screen with cytology (Pap smear) every 3 years. Grade: A</td>
<td>Screen with cytology every 3 years or co-testing (cytology/HPV testing) every 5 years Grade: A</td>
<td>Do not screen. Grade: D</td>
<td>Do not screen. Grade: D</td>
<td>Do not screen. Grade: D</td>
<td>Do not screen with HPV testing (alone or with cytology) Grade: D</td>
</tr>
</tbody>
</table>

### Risk Assessment

Human papillomavirus (HPV) infection is associated with nearly all cases of cervical cancer. Other factors that put a woman at increased risk of cervical cancer include HIV infection, a compromised immune system, in utero exposure to diethylstilbestrol, and previous treatment of a high-grade precancerous lesion or cervical cancer.

### Screening Tests and Interval

- Screening women ages 21 to 65 every 3 years with cytology provides a reasonable balance between benefits and harms.
- Screening with cytology more often than every 3 years confers little additional benefit, with large increases in harms.
- HPV testing combined with cytology (co-testing) every 5 years in women ages 30 to 65 years offers a comparable balance of benefits and harms, and is therefore a reasonable alternative for women in this age group who would prefer to extend the screening interval.

### Timing of Screening

Screening earlier than age 21 years, regardless of sexual history, leads to more harms than benefits. Clinicians and patients should base the decision to end screening on whether the patient meets the criteria for adequate prior testing and appropriate follow-up, per established guidelines.

### Interventions

Screening aims to identify high-grade precancerous cervical lesions to prevent development of cervical cancer and early-stage asymptomatic invasive cervical cancer. High-grade lesions may be treated with ablative and excisional therapies, including cryotherapy, laser ablation, loop excision, and cold knife conization. Early-stage cervical cancer may be treated with surgery (hysterectomy) or chemoradiation.

### Balance of Benefits and Harms

| | The benefits of screening with cytology every 3 years substantially outweigh the harms. | The benefits of screening with co-testing (cytology/HPV testing) every 5 years outweigh the harms. | The harms of screening earlier than age 21 years outweigh the benefits. | The benefits of screening after age 65 years do not outweigh the potential harms. | The harms of screening after hysterectomy outweigh the benefits. | The potential harms of screening with HPV testing (alone or with cytology) outweigh the potential benefits. |

### Other Relevant USPSTF Recommendations

The USPSTF has made recommendations on screening for breast cancer and ovarian cancer, as well as genetic risk assessment and BRCA mutation testing for breast and ovarian cancer susceptibility. These recommendations are available at [http://www.uspreventiveservicestaskforce.org/](http://www.uspreventiveservicestaskforce.org/).

For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, please go to [http://www.uspreventiveservicestaskforce.org/](http://www.uspreventiveservicestaskforce.org/).