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Breast Cancer and the Environment

A Life Course Approach

TABLE: Opportunities for Actions by Women That May Reduce Risk of Breast Cancer

Opportunity for Action	Personal Action Possible	Requires Action by Others	Target Population Defined	Effective Form and Timing of Action Established ^a	Other Prominent Known Risks or Benefits from Taking Action ^b
Avoid inappropriate medical radiation exposure ^c	Yes	Yes	All ages	Yes, especially at younger ages	May result in loss of clinically useful information in some instances Likely to decrease risk for other cancers
Avoid combination menopausal hormone therapy, unless medically appropriate ^d	Yes	Confer with physician	Post-menopausal women	Yes	May experience moderate to severe menopausal symptoms without hormone therapy
Avoid or end active smoking	Yes	Others can facilitate	All ages, especially before first pregnancy	Yes (form) No (timing)	Likely to reduce risk for other cancers, heart disease, stroke
Avoid passive smoking	Varies	Yes	All ages	Yes	Likely to reduce risk for other cancers, heart disease
Limit or eliminate alcohol consumption	Yes	Others can facilitate	All women	Yes (form) No (timing)	May increase risk for cardiovascular disease No known benefit of high alcohol consumption
Maintain or increase physical activity	Yes	Others can facilitate	All ages	No	Likely to reduce risk for cardiovascular disease, diabetes May increase risk for injury

Continued

Opportunity for Action	Personal Action Possible	Requires Action by Others	Target Population Defined	Effective Form and Timing of Action Established ^a	Other Prominent Known Risks or Benefits from Taking Action ^b
Maintain healthy weight or reduce overweight or obesity to reduce postmenopausal risk	Yes	Others can facilitate	Unclear	No	Likely to reduce risk for cardiovascular disease, diabetes, other cancers
Limit or eliminate workplace, consumer, and environmental exposure to chemicals that are plausible contributors to breast cancer risk while considering risks of substitutes ^c	Varies by chemical	Varies	Varies	No	May reduce risk for other forms of cancer or other health problems May result in replacement with products that have health or other risks not yet identified
If at high risk for breast cancer, consider use of chemoprevention	Yes	Confer with physician	High-risk women	Yes	Depending on the agent, increased risk of endometrial cancer, stroke, deep-vein thrombosis, among others

^aActions to address risk factors can take various forms, some of which may be more effective than others, and some of which may have to be taken at a specific time in life to be effective. For example, increasing physical activity might be based on amount of time spent in any one exercise opportunity, on increasing specific types of exercise, or on increasing the frequency of exercise, or perhaps some combination of any of these. Studies have not been done that provide evidence that a specific form of physical activity is optimal for reducing breast cancer risk.

^bThe committee's comments on other benefits or risks highlight major considerations, but they are not intended to be exhaustive.

^cWhile recognizing the risks of ionizing radiation exposure, particularly for certain higher-dose methods (such as CT scans), it is not the committee's intent to dissuade women from routine mammography screening, which aids in detecting early-stage tumors.

^dCombination hormone therapy with estrogen and progestin increases the risk of breast cancer, and the associated risk is reduced upon stopping therapy. Oral contraceptives are also associated with an increased risk of breast cancer while they are being used. This risk is superimposed on a low background risk for younger women, who are most likely to use oral contraceptives. Use of oral contraceptives is associated with long-term risk reduction for ovarian and endometrial cancer.

^ePlausibility may be indicated by epidemiologic evidence, animal bioassays, or mechanistic studies.