



ALCOHOL AND BREAST CANCER

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Disclosures:

- None
 - I cannot offer or comment on any participant's medical course, care, or particular diagnosis as I am not the treating physician
 - All questions related to an individual's cancer diagnosis must be directed to their treating physician team and not placed in the chat
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Alcohol and breast cancer:

- Breast cancer affects 2 million women/year globally
 - 1 in 8 women will be affected in the United States
 - When did we start thinking about this?
 - 1987: New England Journal of Medicine published 2 reports about alcohol and breast cancer (1,2)
 - Increase in risk of breast cancer from alcohol- moderate risk factor for breast cancer (3)
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Risk?

- World Cancer Research Fund: 5% increase in risk with alcohol for premenopausal women and 9% increase for postmenopausal women (10 grams ETOH per day, std drink is 14 grams) (4, 5)
 - Differences in location- no increase in risk fo Europe and Asia, but risk persisted for North America
 - Difficult to study as many nutritional studies rely on self reporting
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Alcohol and Breast Cancer:

- No differences in types of alcohol consumed in terms of BC risk
 - EPIC Study: 360,000 European women- stronger association with ER+ tumors (6)
 - Other studies show an increase in all subtypes of breast cancers
 - Animal models: ETOH exposure in utero leads to higher rates of cancer
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Science of Alcohol and Breast Cancer:

- Alcohol increases breast density which may be one of the reasons it leads to breast cancer
 - Affects folate metabolism- lower risk found in heavier drinkers who supplemented with folate but not in light drinkers (7-9)
 - Oxidation from alcohol metabolism and through oxidative stress from production of the alpha-hydroxyethyl radical, a reactive oxygen species (10)
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Science of Alcohol and Breast Cancer:

- Alcohol is metabolized to acetaldehyde- carcinogen
 - Affects DNA
 - Increases serum estrogens
 - Majority of breast cancer is estrogen receptor positive
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Public Awareness of Alcohol's Relationship to Cancer:

- LOW
 - As opposed to patients' perspectives: study of 3865 adults showed that under a 1/3 of adults knew alcohol was associated with cancer, and only 20.3% of those thought wine was problematic (11)
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Alcohol recommendations:

- American Cancer Society: no amount of alcohol is safe
 - We know that one drink/day increases risk of cancer
 - Breast cancer is a multifactorial diagnosis
 - Recommendations for zero consumption while on chemotherapy and other therapies-
metabolized by the liver, as is alcohol
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