

Washington University in St. Louis

## Washington University Open Scholarship

---

Volume 13

Washington University  
Undergraduate Research Digest

---

Spring 2018

### Decaffeinated Tea Intake and Mammographic Density in Premenopausal Women

Victoria Olojo

*Washington University in St. Louis*

Valerie Otti

*Washington University in St. Louis*

Follow this and additional works at: [https://openscholarship.wustl.edu/wuurd\\_vol13](https://openscholarship.wustl.edu/wuurd_vol13)

---

#### Recommended Citation

Olojo, Victoria and Otti, Valerie, "Decaffeinated Tea Intake and Mammographic Density in Premenopausal Women" (2018). *Volume 13*. 154.

[https://openscholarship.wustl.edu/wuurd\\_vol13/154](https://openscholarship.wustl.edu/wuurd_vol13/154)

This Abstracts J-R is brought to you for free and open access by the Washington University Undergraduate Research Digest at Washington University Open Scholarship. It has been accepted for inclusion in Volume 13 by an authorized administrator of Washington University Open Scholarship. For more information, please contact [digital@wumail.wustl.edu](mailto:digital@wumail.wustl.edu).

# DECAFFEINATED TEA INTAKE AND MAMMOGRAPHIC DENSITY IN PREMENOPAUSAL WOMEN

*Victoria Olojo and Valerie Otti*

*Mentor: Adetunji Toriola*

Higher mammographic breast density is associated with an increased risk for breast cancer. As a result, detecting causes of increased density may provide insight for breast cancer prevention. Few studies have assessed the relationship between tea and coffee intake and mammographic density. Thus, we investigated the associations of coffee and caffeinated and decaffeinated tea intake with volumetric mammographic density measures.

We recruited 383 premenopausal women who had a routine screening mammogram at the Breast Health Center, Washington University in St. Louis, MO, from December 2015 to October 2016. Amount of coffee and caffeinated or decaffeinated tea intake were self-reported. We evaluated mammographic density measures: volumetric percent density (VPD), dense volume (DV), and non-dense volume (NDV) using Volpara. Multiple quantile regression models were used to evaluate the associations of coffee and caffeinated and decaffeinated tea intake with volumetric mammographic density measures.

Coffee and caffeinated tea intake were not significantly associated with VPD or NDV. However, the amount of decaffeinated tea intake per week was positively associated with VPD and inversely associated with NDV. There was no significant relationship between coffee or tea intake and DV. Compared with women who drank decaffeinated tea less than once a week, those who drank decaffeinated tea once or more than once a week had an average 12.5% decrease in NDV (p-value = 0.04). Additionally, drinking decaffeinated tea once or more than once a week was associated with an 11.8% increase in VPD (p-value = 0.042), compared to those who drank decaffeinated tea less than once a week.

Decaffeinated tea intake was correlated with higher VPD and lower NDV. Based on our results, limiting the intake of decaffeinated tea may be useful in decreasing breast density in premenopausal women.