

2017 Research Week Proposal

Title – Adequate water intake for reduction of cardiovascular risk

Program of Study – Master of Public Health

Presentation Type – PowerPoint

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Category –Theoretical Proposal

Abstract:

This research focuses on the effect of high water intake on certain properties of blood. It is well known that regular use of low-dose aspirin reduces coronary risk. Recent population studies have indicated that daily ingestion of water may have similar benefits without the potential negative side effects associated with aspirin ingestion. Ample evidence from animal and human studies proposes that water intake is a protective measure against cardiovascular diseases (CVD). One renowned study – the Adventist Health Study – reported that risk factors for coronary heart disease, such as whole blood viscosity and plasma viscosity, are elevated by dehydration. Maintaining adequate hydration has been shown by several other studies to reduce the risk of heart disease, especially by reducing the viscosity of whole blood, and protecting against clot formation/hypercoagulability. In addition, a person's level of dehydration has been found to relate with other chronic diseases, including fatal coronary heart disease, CVD and chronic kidney disease, with higher levels of dehydration linked with greater risk. Blood viscosity, as assessed via testing for the hematocrit level, has been identified in multiple studies as a major contributor to morbidity and mortality in patients with or at risk of cardiovascular diseases. Our research evaluates how the intake of water affects blood composition. We conducted an analysis of literatures that suggest that high water intake may change blood viscosity, thereby reducing the risk of developing cardiovascular diseases. Our findings will provide preliminary data that could be used for further experimental studies and hopefully provide evidence of an efficient way to reduce cardiovascular risk