COCHRANE CAM REVIEW: SUMMARY OF FINDINGS

A Summary of a Cochrane Review: Green and Black Tea for the Primary Prevention of Cardiovascular Disease

Nancy Santesso, RD, MLIS, *Canada*; Eric Manheimer, PhD, *United States*

Author Affiliations

McMaster University,
Hamilton, Canada
(Ms Santesso);
Cochrane CAM Field
(Dr Manheimer).

Correspondence

Nancy Santesso
santesna@mcmaster.ca

Citation

Global Adv Health Med.
2014;3(2):66-67. DOI:
10.7453/gahmj.2014.003

Disclosures

The authors completed
the ICMJE Form for
Disclosure of Potential
Conflicts of Interest and
disclosed receipt by their
institutions of grants
from the National
Institutes of Health/
National Center for
Complementary and
Alternative Medicine.

Acknowledgment

This article was
prepared on behalf
of the Cochrane
Complementary and
Alternative Medicine
Field with funding from
the US National Center
for Complementary and
Alternative Medicine
(NCCAM) of the US
National Institutes of
Health (grant number
R24 AT001293).

INTRODUCTION

Review authors in the Cochrane Collaboration conducted a review of the effects of green and black tea to prevent cardiovascular disease (CVD), such as heart attack and stroke. After searching for all relevant studies, they found 11 studies in 821 people who were healthy or at high risk of CVD. The findings of the review are summarised below.

TEA AND CARDIOVASCULAR DISEASE

CVD refers to many diseases that affect the heart and blood vessels. CVD includes cerebrovascular disease (such as stroke); peripheral arterial disease, in which arteries become blocked with plaque; and coronary heart disease, which can lead to a heart attack. Because CVD causes almost 30% of deaths around the world, there is research into ways to prevent and lower the risk of CVD. Preventing CVD can involve ways to lower blood pressure, lower triglyceride levels, lower total cholesterol levels, and lower the “bad” cholesterol (LDL) but raise the “good” cholesterol (HDL). Researchers have been testing whether certain foods or drinks could help prevent CVD.

Tea has been used as medicine in many countries, and different types of tea have become popular. The two most popular types of tea are black and green.

These teas are produced from the same leaves but using different methods. This means they contain different vitamins and minerals and different amounts of flavanols (a type of flavanoid) and caffeine. The question is, could drinking tea or taking tea extract prevent CVD?

WHAT DOES THE RESEARCH SAY?

There were 11 studies that tested the effects of tea on the risk of CVD after 3 to 6 months. People who were healthy or who already had a high risk of CVD were in the studies. Green tea and black tea were tested sometimes as tea and sometimes as pills that contained tea extract.

The evidence from the research was moderate quality or low quality. “High quality” means something *will* happen, moderate quality means it *probably* will happen, and “low quality” means it *may* happen. “Very low quality” evidence means it is *uncertain*.

The studies show that after 3 to 6 months, green or black tea

- may lower diastolic and systolic pressure slightly
- probably lowers bad cholesterol (LDL)
- probably has little or no effect on good cholesterol (HDL)
- may lower total cholesterol
- probably has little to no side effects

Table Summary of Findings

What Was Measured	Without Tea	With Tea	Quality of the Evidence ^a	What Happens After 3-6 mo
Diastolic blood pressure (4 studies, 290 people)	2 mm/Hg lower	Lower by 2.8 mm/Hg more (from 1.9 to 3.8 more) ^b	⊕⊕⊕⊖ low	Tea may lower diastolic blood pressure slightly
Systolic blood pressure (4 studies, 290 people)	1 mm/Hg lower	Lower by 2.3 mm/Hg more (from 1.1 to 3.4 more) ^b	⊕⊕⊕⊖ low	Tea may lower systolic blood pressure slightly
Bad cholesterol (LDL) (8 studies, 474 people)	From 0.2 lower to 0.3 mmol/L higher	Lower by 0.6 mmol/L more (from 0.6 to 0.4 more) ^b	⊕⊕⊕⊕ moderate	Tea probably lowers “bad” cholesterol (LDL)
Good cholesterol (HDL) (8 studies, 473 people)	From 0.04 lower to 0.2 mmol/L higher	Change of 0 mmol/L (from 0.04 more to 0.04 less) ^b	⊕⊕⊕⊕ moderate	Tea probably has little or no effect on “good” cholesterol (HDL)
Total cholesterol (7 studies, 446 people)	—	Lower in 4 out of 6 studies	⊕⊕⊕⊖ low	Tea may lower total cholesterol
Side effects (4 studies, 290 people)	—	—	⊕⊕⊕⊕ moderate	Tea probably has little or no side effects
Death, heart attack, or stroke Not measured in these studies				

^a Details about the quality of the evidence:

Evidence was moderate quality due to the risk of bias in studies because there may not have been random sequence generation or allocation concealment. Evidence was low quality due to risk of bias and the imprecise results from the small number of participants in the studies or because the studies could not be combined statistically.

^b The numbers in the brackets show the range in which the actual effect could be.

Abbreviations: HDL, high-density lipoprotein; LDL, low-density lipoprotein.

None of the studies measured whether having tea would lead to fewer deaths, heart attacks, or strokes. It is also not clear what is the best amount of tea or whether drinking tea or taking tea extract in pill form is better.

WHERE DOES THIS INFORMATION COME FROM?

This summary is based on a Cochrane systematic review: Hartley L, Flowers N, Holmes J, Clarke A, Stranges S, Hooper L, Rees K. Green and black tea for the primary prevention of cardiovascular disease. *Cochrane Database Syst Rev.* 2013 Jun 18;6:CD009934.

The Cochrane Collaboration is an independent global network of people who publish Cochrane systematic reviews. Many of the people are volunteers who write reviews by pulling together scientific studies to answer healthcare questions. These reviews may answer questions about whether, for example, certain vitamins work in diabetes. The Cochrane Complementary and Alternative Medicine Field promotes Cochrane systematic reviews which cover complementary and alternative medicine in many conditions and diseases. For more information, please visit <http://www.compmed.umm.edu/cochrane/>.

You can transform **health**

BE A HEALTH COACH. BE PART OF THE TRANSFORMATION OF HEALTH CARE.

Since 2005, the University of Minnesota's Center for Spirituality & Healing has offered a formal track in health coaching under our graduate-level, Post-Baccalaureate Certificate in Integrative Therapies and Healing Practices. Offered in a blended format, students only have to be on campus for 2, 4-day weekends a semester. The rest is done on the computer and phone. Students join us from all over the United States.

Health coaching is a new and evolving profession designed to meet the needs of people actively seeking to improve their health and wellbeing in the midst of complex and often confusing healthcare options.

Individuals seeking prevention as well as those dealing with complex illness issues can benefit from a personalized care plan that a Health Coach can help them develop. Such services are offered in a variety of settings including hospitals, clinics, businesses, health clubs, and private practices.

Are you ready to be part of this new frontier in the healthcare experience? Submit your application today.

To learn more or apply, please contact Pamela at cherr006@umn.edu or visit z.umn.edu/hc

UNIVERSITY OF MINNESOTA
Center for Spirituality & Healing
Driven to Discover™