

# Effectiveness of black tea versus placebo in subjects with hypercholesterolemia: A PRISMA systematic review and meta-analysis

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**Aim:** To determine if the black tea is more effective in serum lipid profile than placebo in subjects with hypercholesterolemia. **Design:** Systematic review with meta-analysis of randomized clinical trials (RCTs). **Data sources:** The databases Medline, Central, Embase, Lilacs, Cinahl, SPORTDiscus, and Web of Science were searched from inception up to January 2019. **Eligibility criteria for selecting studies:** RCTs that compared black tea versus placebo, that included serum lipid profile outcomes in subjects older than 18 years of age with hypercholesterolemia. **Results:** Seven RCTs met the eligibility criteria, and for the quantitative synthesis, six studies were included. Mean difference for total cholesterol was 1.67 mg/dl 95% CI = -5.47 to 8.80 ( $p = 0.65$ ), mean difference 0.28 mg/dl, 95% CI = -3.89 to 4.45 ( $p = 0.90$ ) for triglycerides, mean difference 3.21 mg/dl, 95% CI = -11.02 to 4.60 ( $p = 0.42$ ) for low density lipoprotein-cholesterol, mean difference 0.38 mg/dl, 95% CI = -1.12 to 1.87 ( $p = 0.62$ ) for high density lipoprotein-cholesterol. **Conclusion:** In the short term, no significant differences were found in lipid serum profile comparing black tea consumption with placebo. © 2019

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Black tea

Hypercholesterolemia

Meta-analysis

Serum lipids

Systematic review

black tea extract

cholesterol

high density lipoprotein cholesterol

low density lipoprotein cholesterol

placebo

triacylglycerol

lipid

cholesterol blood level

Cinahl

clinical assessment

clinical effectiveness

comparative study

Embase

human

hypercholesterolemia

lipid blood level

Medline

meta analysis

outcome assessment

priority journal

quantitative analysis

randomized controlled trial (topic)

Review

systematic review

tea

Web of Science

blood

hypercholesterolemia

prognosis

Humans

Hypercholesterolemia

Lipids

Prognosis

Tea