

In Boosting Heart Health and Reducing Disease Risks Raw white Garlic Shows Promise

Researchers collated available data from two online scientific repositories to elucidate the potential [health benefits](#) of raw white garlic consumption on human well-being. Their literature search identified 22 relevant studies (12 clinical trials, including seven randomized controlled trials [RCTs], and 10 observational investigations).

Study findings suggest that raw white garlic consumption can significantly improve specific cardiometabolic biomarkers, such as lowering total/serum cholesterol, reducing triglyceride levels, and improving [high-density lipoprotein](#) (HDL) cholesterol. Additionally, it was found to enhance anthropometric measures like body mass index (BMI), waist-hip ratio, and fibrinolytic activity, which is critical for blood clot breakdown. Moreover, these improvements are linked to reducing the risk of chronic diseases such as cancers, prehypertension, diabetes (insulin homeostasis), and nonalcoholic fatty liver disease (NAFLD).

However, it is important to note that three of the clinical trials reviewed did not find significant health benefits associated with raw white [garlic consumption](#). This highlights the variability in study outcomes and the need for a cautious interpretation of the results.

Unfortunately, most studies in the field suffer from the shared shortcoming of small sample sizes, insufficient follow-up periods, and predominantly Chinese study cohorts, restricting their generalizability. Specifically, nine of the ten observational studies were conducted in China, with five relying on the same dataset (Tianjin Chronic Low-grade [Systemic Inflammation](#) and Health [TCLSIH] cohort).



Study

The present review aims to address these gaps in the literature and spurn further research efforts by collating and discussing the potential [health benefits](#) of raw white garlic consumption on human health from the limited number of clinical and observational studies conducted in this field.

Data for the review was obtained from the Scopus and PubMed electronic scientific repositories without publication date limits. Inclusion criteria restrict data collection to [clinical trials](#) and observational investigations comprising human cohorts, with studies on processed garlic (dried back garlic) or garlic extracts (garlic oils or juices) excluded.

Results

Publication title, abstract, and full-text screening revealed only 12 clinical trials (seven [randomized controlled trials](#) [RCTs]) and 10 observational studies fitting inclusion criteria. The observational studies comprised two prospective cohorts, four case-control cohorts, and four cross-sectional study designs. All observational studies and six of the 12 clinical trials included male and female participants.

Clinical trials had small cohort sizes, ranging from 5 to 49 participants, with ages spanning 17 to 70 years. Notably, eight of the 12 included trials reported beneficial health impacts following raw white garlic consumption, particularly on blood lipid levels, blood pressure (both systolic and diastolic), and antioxidant [enzyme activity](#) (e.g., catalase [CAT], superoxide dismutase [SOD], and glutathione peroxidase [GPx]). However, three clinical trials did not find significant associations, underscoring the mixed evidence.

Encouragingly, none of these trials reported adverse (side) effects of daily garlic consumption between 4g and 35g. However, the variability in [dosage](#) and study duration makes it difficult to draw firm conclusions.

Reported benefits included improved outcomes on blood lipid levels, blood pressure (BP; both systolic and diastolic), body mass index (BMI), fibrinolytic activity, waist-hip ratio, and enzymatic activity (catalase [CAT], [superoxide dismutase](#) [SOD], and glutathione peroxidase [GPx]). Encouragingly, none of these trials reported adverse (side) effects of daily garlic consumption between 4g and 35g.

Observational studies included between 865 and 28,958 participants per study. Study findings revealed that raw white garlic consumption was associated with reductions in the risks of chronic diseases, including cancers (especially liver and [esophageal cancers](#)), prehypertension, depression (especially in women), and the recently diagnosed nonalcoholic fatty liver disease (NAFLD). Furthermore, frequent raw garlic consumption was observed to improve insulin homeostasis, handgrip strength, and thickened carotid intima-media thickness (cIMT).

However, the generalizability of these findings is severely limited by the fact that nine of the ten observational studies were conducted in China. Moreover, five of these studies used the same dataset, which raises concerns about [data overlap](#).

Conclusion

The present study promotes the consumption of raw white garlic as a positive [health behavior](#) with no known adverse effects within normal human consumption ranges (<35 g/day). However, the limitations of current studies—particularly their restriction to Chinese populations, short study durations, and (in the case of clinical trials) insufficient sample sizes—underscore the need for additional research.

Future investigations should aim for larger, more demographically diverse sample cohorts to better understand the health benefits of this affordable and readily available ingredient. Only through such comprehensive research can raw white garlic be confidently recommended as a [dietary supplement](#).

Source:

<https://www.news-medical.net/news/20240908/Raw-white-garlic-shows-promise-in-boosting-heart-health-and-reducing-disease-risks.aspx>