The Effects of Green Tea on Weight Loss in Obese Individuals

Eric Pereira, Sarah Hazell, Chanelle Desjardins, Emilie Clermont
Faculty of Health Sciences, University of Ottawa

Abstract

As the rate of obesity has gone up, the use of dietary supplements has also seen a rise in popularity and has been the big rage over the past couple of years as people attempt to discover the secret to easy weight loss. In most dietary supplements found on the market, there are traces of green tea extract due to the perceived health benefits it offers as well as the increased weight loss that is associated with it. For the purpose of this project, we reviewed the literature in order to assess the evidence available to determine whether or not the consumption of green tea can be attributed to weight loss. Thus we conducted research analyzing the possible benefits of green tea in reducing obesity, weight management, obesity, green tea, green tea extract, green tea catechin, weight supplement, health benefits and metabolic effects.

Methods

Identification of Relevant Studies

A variety of databases were consulted to obtain a wide range of credible peer reviewed articles. Databases included in the research process are the following: PubMed, Scopus, Google Scholar and finally the University of Ottawa Library Database. To further refine the search, the following keywords were used: weight loss, weight management, obesity, green tea, green tea extract, green tea catechin, weight supplement, health benefits and metabolic effects.

Inclusion and Exclusion Criteria

A study was valid for inclusion in the literature review if (a) the articles were published after 1995 (b) studies involved an experiment or were a case study, or followed a form of some sort (c) only green tea derived products were prescribed as medication (d) participants in the studies were overweight and a minimum age of 16. Articles were excluded based on the following criteria: (a) the language of publication was not in English or French (b) study participants were not obese or there was usage of other dietary supplements (c) articles were too long (d) the study was not related to the developed research question. It is important to note that the inclusion and exclusion criteria previously enumerated were applied upon by each member of the research team in order to obtain pertinent peer reviewed articles for this review.

Results

The Effects of Green Tea on Weight Loss in Obese Individuals

Hursel et al (2009) suggest in their meta-analysis, individuals of Asian descent are more receptive to the intervention and expressed greater amount of weight loss in comparison to their Caucasian counterparts. Potential bias’ to consider: confounding, foreign language bias, ease of access bias and confirmation bias.

Discussion

In the study conducted by Hsu et al (2008) there was no significant reduction in body weight amongst the members of the experimental group, which counters the results obtained in other studies. However, upon further analysis, it was determined that only women had been involved which may have affected the results. Although there was no statistically significant reduction in weight, there were significant improvements in other factors contributing to an individual’s health. Hence the aim of this study was to perform a literature review of available peer-reviewed articles: green tea, green tea extract, weight loss, obesity, health and benefits. Throughout the research process we have found evidence that the use of green tea extract supplements and other products formulated with it do, in fact have positive effects on obese individuals whose goals are to increase weight loss, increase fat oxidation, decrease appetite as well as disrupt nutrient absorption within the body. Future research on the subject is still needed, as there are still existing gaps that remain in the current literature.

Intervention and Disease have been transitioning as society has progressed. A meta-analysis of 11 studies involving weight loss and weight management, obesity, green tea, green tea extract, weight loss, obesity, health and benefits. Throughout the research process we have found evidence that the use of green tea extract supplements and other products formulated with it do, in fact have positive effects on obese individuals whose goals are to increase weight loss, increase fat oxidation, decrease appetite as well as disrupt nutrient absorption within the body. Future research on the subject is still needed, as there are still existing gaps that remain in the current literature.

Conclusion

The aim of this study was to perform a literature review of available peer-reviewed articles: green tea, green tea extract, weight loss, obesity, health and benefits. Throughout the research process we have found evidence that the use of green tea extract supplements and other products formulated with it do, in fact have positive effects on obese individuals whose goals are to increase weight loss, increase fat oxidation, decrease appetite as well as disrupt nutrient absorption within the body. Future research on the subject is still needed, as there are still existing gaps that remain in the current literature.

Methods

Identification of Relevant Studies

A variety of databases were consulted to obtain a wide range of credible peer reviewed articles. Databases included in the research process are the following: PubMed, Scopus, Google Scholar and finally the University of Ottawa Library Database. To further refine the search, the following keywords were used: weight loss, weight management, obesity, green tea, green tea extract, green tea catechin, weight supplement, health benefits and metabolic effects.

Inclusion and Exclusion Criteria

A study was valid for inclusion in the literature review if (a) the articles were published after 1995 (b) studies involved an experiment or were a case study, or followed a form of some sort (c) only green tea derived products were prescribed as medication (d) participants in the studies were overweight and a minimum age of 16. Articles were excluded based on the following criteria: (a) the language of publication was not in English or French (b) study participants were not obese or there was usage of other dietary supplements (c) articles were too long (d) the study was not related to the developed research question. It is important to note that the inclusion and exclusion criteria previously enumerated were applied upon by each member of the research team in order to obtain pertinent peer reviewed articles for this review.

Results

The Effects of Green Tea on Weight Loss in Obese Individuals

Hursel et al (2009) suggest in their meta-analysis, individuals of Asian descent are more receptive to the intervention and expressed greater amount of weight loss in comparison to their Caucasian counterparts. Potential bias’ to consider: confounding, foreign language bias, ease of access bias and confirmation bias.

Discussion

In the study conducted by Hsu et al (2008) there was no significant reduction in body weight amongst the members of the experimental group, which counters the results obtained in other studies. However, upon further analysis, it was determined that only women had been involved which may have affected the results. Although there was no statistically significant reduction in weight, there were significant improvements in other factors contributing to an individual’s health. Hence the aim of this study was to perform a literature review of available peer-reviewed articles: green tea, green tea extract, weight loss, obesity, health and benefits. Throughout the research process we have found evidence that the use of green tea extract supplements and other products formulated with it do, in fact have positive effects on obese individuals whose goals are to increase weight loss, increase fat oxidation, decrease appetite as well as disrupt nutrient absorption within the body. Future research on the subject is still needed, as there are still existing gaps that remain in the current literature.

Conclusion

The aim of this study was to perform a literature review of available peer-reviewed articles: green tea, green tea extract, weight loss, obesity, health and benefits. Throughout the research process we have found evidence that the use of green tea extract supplements and other products formulated with it do, in fact have positive effects on obese individuals whose goals are to increase weight loss, increase fat oxidation, decrease appetite as well as disrupt nutrient absorption within the body. Future research on the subject is still needed, as there are still existing gaps that remain in the current literature.