

## Food Fads and Fallacies regarding Weight Loss in Obese Teens and Adolescents

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The global prevalence of obesity has considerably increased in the last decade, leading to a growing trend in following different diet plans for rapid weight loss among youth, especially females. There is a huge peer and societal pressure to maintain a socially acceptable physique. A slim body image was deemed important for peer acceptance; hence 'crash' dieting was in existence. Tools for obesity management include skipping meals, fasting, starving and diets like green tea, high protein diet, low carbohydrates diets, garlic, ginger, black tea, guava intake and many more. A study reported high Binge drinking rates (63% of female, 83% of male students). Binge eating was reported by 48% of students and was correlated with healthy and unhealthy weight loss behaviors. Female students were more likely to endorse the use of skipping meals, fasting, use of diet pills, laxatives, and self-induced vomiting<sup>2</sup> School interventions and nutritional counseling to youth, targeting adolescent females and focusing on healthy eating, are therefore urgently required. The prevalence of disordered eating and dieting behaviors among adolescent females shown by studies suggests the need for preventive programs encouraging appropriate eating and dieting behaviors<sup>3</sup>.

Generally, it is wise to stay away from any crash diet as most of these diets are nutritionally unbalanced. Although they may cause temporary weight losses in a short period of time, the diet taken may result in significant health hazards in the long run. The only thing these crash diet plans accomplish is the addition of another cycle of frustration and disappointment for the dieter<sup>4</sup>.

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This article will reveal the significance of different popular weight loss diets which are usually followed by young generation. This is the time to critically analyze and see whether the effects are significant in promoting weight loss.

**Green tea** is known for its miraculous weight loss effects. Decaffeinated green tea preparations appear to induce a small, statistically non-significant weight loss in overweight or obese adults<sup>5</sup>. Since the amount of weight loss is small, it is not likely to be clinically substantial; green tea has no significant effect on the maintenance of weight loss<sup>6</sup>. Another research, however, falsely supports the role of green tea in weight loss. It is to be noted that the extent of these effects obtained is still subject to debate, and requires more objective quantification in future researches<sup>7</sup>.

**High protein diet** is associated with rapid weight loss. This review briefly addresses the relevance of protein diets for body weight loss and weight maintenance. The short term benefits of high protein diets appear to persist to a small degree. Long term benefits, however, are greater with better compliance to the diet<sup>8</sup>. There is convincing evidence that a high protein intake increases satiety compared to diets of lower protein content. Evidence also suggests that high protein meals lead to a reduced subsequent energy intake. Some evidence suggests that diets high in protein result in an increased weight loss and fat loss as compared to diets lower in protein, but findings have not been consistent.

In dietary practice, it may be beneficial to partially replace refined carbohydrate with protein sources that are low in saturated fat. Although recent evidence supports potential benefit, rigorous long-term studies are needed to investigate the effects of high protein diets on weight loss and weight maintenance<sup>9</sup>. High-protein (HP) diets need further

long-term verifications to validate the physiological effects of HP diets over a long period of time<sup>11</sup>.

Reports suggest that body weight reduction while following Low-carbohydrate diets has advantages that are more notably found in short periods of time<sup>12</sup>.

**Peppers and capsicum** are also getting popular for their role in weight loss. These bioactive ingredients have energy intake reducing effects and may therefore be helpful in reducing calorie intake and might support weight loss periods by relatively sustaining satiety and suppressing hunger<sup>13</sup>.

**Dietary calcium**, in relation to subsequent change in body weight, is an interaction between genetic predisposition and obesity. Study by Larsen SC et al. suggests that dietary calcium relates weakly to body weight loss. No evidence is found to support general association between calcium and change in waist circumference<sup>13,14</sup>.

**Ginger** intake is also being associated with weight loss concept. Ratings showed lower hunger, lower prospective food intake and greater fullness with ginger consumption versus control group. Reduced feelings of hunger with ginger consumption, suggest a potential role of ginger in weight management. Additional studies are necessary to confirm these findings<sup>15</sup>.

Results suggest that **garlic** may have a potential benefit in preventing obesity. Administration of garlic significantly reduces high fat diet-induced body weight, fat accumulation, hyperlipidaemia and hypercholesterolaemia<sup>16</sup>. Hence garlic should not be taken as a magic wand to bring rapid weight loss.

**Vinegar** is promoted as a natural appetite suppressant, based on previous reports that vinegar ingestion significantly increases satiety.

However there are concerns about the appropriateness and safety of this advice. Studies indicate that vinegar ingestion enhances satiety and poor tolerability following ingestion invoking feelings of nausea. On this basis, the promotion of vinegar as a natural appetite suppressant does not seem appropriate<sup>17</sup>.

**Black tea** is also included in the category of promoting weight loss if taken on a daily basis.

Prevention of diet induced obesity by dietary black tea is achieved with this mechanism of inhibiting intestinal lipid absorption<sup>18</sup>.

For **Pulse** consumption it is generally believed that daily intake of lentil soup brings rapid weight loss. Observational studies, however, show a consistent inverse relationship between pulse consumption and BMI or risk for obesity. Randomized controlled trials generally support a beneficial effect of pulses on weight loss but only when pulse consumption is coupled with energy restriction. There is some indication of a beneficial effect of pulses on short-term satiety and weight loss during intentional energy restriction, but more studies are needed in this area<sup>19</sup>.

The effect of daily consumption of **grape fruit** in body weight of overweight adults was assessed. One of the studies suggests that consumption of grapefruit for 6 weeks daily does not significantly decrease body weight; grapefruit should be further evaluated in the context of obesity<sup>20</sup>.

After reviewing the above mentioned published research on various diet plans used by individuals to reduce weight, not a single diet has been significantly proven to promote rapid weight loss. Only a balance between energy intake and energy expenditure can result in weight loss. Higher efforts are needed among all those trying to lose weight to promote effective strategies for weight loss. This includes the use of calorie reduction and increased physical activity<sup>21</sup>, adopting a healthy life style and avoiding sedentary routines. No diet can work like miracle. It is the efforts that count and bring positive results towards achieving a healthy and target weight loss. Exercise happens to play a critical role in the loss and maintenance of body weight. Diet alone has met with temporary success only because metabolic rate is decreased with extreme calorie restriction. This decrease persists after the dieting period has ended, often leading to rapid weight regain and the "yo-yo effect. Although, in some instances, exercise alone has been effective for weight loss, success varies according to the gender of the subjects, intensity and duration of the exercise.

Exercise programs of low to moderate intensity, long duration and high frequency seem to be most

beneficial, with the most popular forms of exercises being walking, jogging, cycling and swimming<sup>22</sup>.

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