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### Unveiling dietary fads and trends in weight management

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## Unveiling dietary fads and trends in weight management

### Abstract

Weight management plays an important role in the risk reduction of lifestyle disease and may be adequately addressed through the diet. Fad diets are short term, often have little or no scientific substantiation and often negatively affect health outcomes. Many fad diet approaches such as Atkins, Zone, the Ornish and the Southbeach do not allow for the minimal energy needs to be met and resultantly the weight loss effects are from fluid and muscle loss rather than fat loss. When selecting an appropriate diet for weight management, a balance of all food groups and nutrients need to be considered. Of particular importance to individuals with cardiovascular risk factors is the energy balance of a diet, the allowable saturated fat and sodium intakes. Factors such as culture, food preferences, religious beliefs and lifestyle should also be addressed.

### Keywords

unveiling, fads, dietary, trends, management, weight

### Disciplines

Arts and Humanities | Life Sciences | Medicine and Health Sciences | Social and Behavioral Sciences

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# Unveiling Dietary Fads and Trends in Weight Management

**T**he prevalence of the metabolic syndrome is increasing in Australia and dietary weight management plays an important role in the risk reduction of cardiovascular disease, diabetes and hypertension. The energy balance of a diet and the allowable saturated fat and sodium intakes are particularly important for people at high risk of cardiovascular disease.

Communication channels such as the Internet have created a challenge when trying to identify beneficial diets from those commonly referred to as 'fad' diets. Fad diets are short-term, have little or no scientific substantiation<sup>1</sup> and often negatively affect health outcomes. These diets are often heavily promoted to produce rapid results and attract individuals through their association with celebrities. Such diets are specifically focussed on seeing rapid weight loss results in the short-term.<sup>1</sup> They are, however, difficult to maintain in the long-term and many dieters regain the weight lost (and sometimes extra). Many fad diet approaches do not allow for the minimal energy needs to be met and resultantly the weight loss effects are from fluid and muscle loss rather than fat loss. The diets often encourage an unbalanced eating pattern or impose strict nutrient requirements to be met through the replacement of one food group with another.

Early approaches to weight management focussed on a reduction of the total fat content of an individual's dietary intake. This approach, despite its advantages, is generally not sustainable. Fat is needed for normal metabolic functioning and further, is needed in certain food types for its palatability and flavour profile. Subsequent dietary weight loss trends shifted

**Table: Common Fad Diet Approaches to Weight Management<sup>2</sup>**

## **ATKINS: VERY LOW CARBOHYDRATE<sup>1,2</sup>**

Low total fibre intake, no fruit or wholegrain intake with minimal vegetable intake. Four phases with restricted carbohydrates:

- Induction phase (two weeks):  $\leq 20\text{g/day}$  of carbohydrate.
- Ongoing weight loss phase (two weeks to two months):  $\leq 50\text{g/day}$  of carbohydrate.
- Pre-maintenance phase (a few weeks to months): when one is 2-5kg from the goal weight.
- Lifetime maintenance phase: at goal weight.

## **ZONE: LOW CARBOHYDRATE<sup>2</sup>**

- Focus on protein intake at three meals and two snacks.
- Less than a five hour period between meals.
- Protein to carbohydrate ratio of 0.75 at each meal/snack.
- Nutrients broken into blocks to encourage correct ratios.
- Upper limit of 500 (~2100kJ) calories per meal or 100 (~400kJ) calories per snack.
- No more than 1700 calories (~7100kJ) per day.
- 'Bad carbohydrates' are seen as carrots, starchy vegetables, bananas, some dried fruit, fruit juices, most grains, bread, ice cream, granulated sugar, honey and jelly.
- Meal timing is important.
- Calculated requirements are determined by weight, percentage body fat and level of physical activity.
- Protein is calculated first (~30% energy), followed by carbohydrate (~40% energy).
- Fat loss is based around eating more fat from the diet (30% energy).

## **ORNISH: VERY LOW FAT, HIGH CARBOHYDRATE, VEGETARIAN<sup>1</sup>**

Very low fat vegetarian approach with 10% energy from fat, greater than 75% energy from carbohydrate and high intake of fibre.

- Protein intake primarily from plant origins.
- A small allowance for dairy proteins (low fat yoghurt and cottage cheese).
- Fish, nuts and vegetable oils excluded from the diet.

## **SOUTHBEACH: CARBOHYDRATE QUALITY<sup>1,2</sup>**

Less than 45% energy from carbohydrate, greater than 20% energy from protein and greater than 35% energy from fat, with saturated fat levels greater than 10%.

- Phase 1 (two weeks): eliminate all starches, sugars and alcoholic beverages.
- Phase 2: gradually add whole grains, fruit and glass of wine with dinner, encourage GI  $\leq 55$ .
- Phase 3 (maintenance phase): no restrictions.

dramatically to consider a wider range of macronutrients required by the body. This shift brought with it the extremes of dieting. Diets focusing upon low carbohydrate,

high protein patterns for weight loss have received and continue to receive the most focus.

The Atkins diet was one of the most publicised diets utilising this

approach. It encourages dieters to push their bodies into ketosis by consuming carbohydrate amounts below the minimal levels required by the body. As shown in the Table, Atkins promotes a high protein intake with little guidance about the type of protein. Dieters have the option to consume high fat foods (e.g. unlimited intake of butter) and often high saturated fat protein choices (e.g. full-fat cheese) but they must not exceed the carbohydrate thresholds, which are altered slightly as weight loss progresses. Weight regain commonly occurs if individuals begin consuming greater than 40g to 60g carbohydrate per day.<sup>1,2</sup> The Atkins diet recommends a wide variety of conditions,<sup>1</sup> including the avoidance of fruit, breads and cereals. Most dairy products are discouraged (other than cheese) and the intake of vegetables is below that required to promote general health. Implications on kidney and heart function are the primary consequences of the Atkins approach and modifications have been made with time to reduce the extent of saturated fat being consumed as part of this diet. Research has shown that individuals have experienced side-effects from following low-carbohydrate diets, including constipation, headache, halitosis, muscle cramps, diarrhoea and rashes.<sup>3</sup> There is also an increased risk of diverticular disease from the low fibre intake, and coronary artery disease and elevated LDL cholesterol<sup>4</sup> resulting from the high saturated fat intake.

Other diets that have a high carbohydrate, low protein approach, such as the vegetarian Ornish diet, also have negative effects on the body. Limiting animal protein sources from the diet when a person has not previously followed an educated vegetarian approach

may result in nutrient depletion, in particular iron and zinc. Limiting the type and amount of dairy protein in this diet may further affect the calcium stores. Overall approaches such as the Ornish diet have been shown to reduce HDL cholesterol and increased triglyceride levels from the very high carbohydrate, very low fat approach that is recommended.<sup>1,4</sup>

More research is needed to determine the short and long-term health effects of fad diets on individuals. Many fad diets will focus on specific gram or percentage intakes of various macronutrients. This requires an understanding of food composition to follow the diet correctly or it will severely limit important food groups from the diet.

When selecting an appropriate diet for weight loss, the balance of all food groups (breads and cereals, fruit, vegetables, lean meat and protein alternatives and dairy) and nutrients need to be considered. Of particular importance to individuals with cardiovascular risk factors is the energy balance of a diet, the allowable saturated fat and sodium intakes. Personal factors such as culture, food preferences, religious beliefs and lifestyle<sup>1</sup> should also be addressed. Dietary approaches to weight loss for cardiovascular disease management need to be tailored to the person, matched with regular physical activity and should be flexible to meet the needs of the

individual. One generic approach will not suit all. Referral to an Accredited Practising Dietitian is recommended if patients who have or are at high risk of having cardiovascular disease are finding it difficult to implement a low cholesterol, low glycaemic index diet for general health and weight loss.

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## No conflict of interest declared. ♥



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