Ketogenic Diet, Intermittent Fasting & MyPlate: Benefits and Downfalls

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Introduction
With every new year, it seems there is a new diet trend. With so many diets, it can be challenging to know what is “good for you”. It is important to consider personal goals when choosing a diet. Some people follow a diet for optimized performance, while others may be interested in weight management. Knowing the benefits and downfalls of a diet is key for health. The ketogenic diet (KD) and intermittent fasting (IF) have recently gained popularity in the fitness and health industry. The United States Department of Agriculture’s (USDA) MyPlate is promoted by health professionals and provides overall guidance for a healthful diet. Let’s compare how these three diets may affect performance and weight goals.

MyPlate
The USDAs MyPlate is based on the 2015 Dietary Guidelines for Americans. MyPlate focuses on eating a balanced diet with a variety of foods. MyPlate shows what your plate should look like with a simple visual. MyPlate encourages whole grains, fruits, vegetables, protein variety, and low-fat dairy choices. MyPlate also recommends limiting the amount of saturated fat, sodium, and added sugars. It has easy-to-follow advice and is meant to be simple and repeatable.

Performance Optimization
The focus of MyPlate is to promote healthy patterns of eating throughout your life. Performance can be optimized by eating a balanced diet. MyPlate supports the intake of adequate macro and micro nutrients. This can support optimized performance with personal tailoring to specific exercise programs. If done properly it will ensure enough carbs to maintain stored energy and protein to build muscle.

Weight Management
Following a healthy eating style such as MyPlate has been shown to be effective in weight loss and management. In many cases, it may be better than fad diets for long-term maintenance. This dietary pattern will help you take in adequate amounts of nutrients and allows for a variety of foods to be eaten.

Intermittent Fasting
The term “intermittent fasting” refers to a wide variety of eating patterns and programs.

This weight loss strategy has gained popularity after many celebrity endorsements. Intermittent fasting (IF) strategies involve restricting eating with little or no intake for 16-48 hours. This is followed by a period of unrestricted eating. With longer fasting periods of 24-48 hours, it is often referred to as “alternate-day fasting”. This diet strategy may result in metabolic changes during fasting periods. Research has shown increased fat breakdown, decreased blood sugar, and increased metabolic rate during fasting.

Performance Optimization
Research has shown no decrease in performance during short fasting periods. Although, some studies have shown eating carbohydrates (carbs) prior to exercise may improve performance, whereas other studies show no difference. It often depends on the duration of the exercise. With longer exercise time, carbs seem to be more helpful. If adequate calories are eaten during non-fasting periods, the body can store enough energy and performance is often not affected. This means optimized performance is possible despite fasting if there is proper nutrient intake.

Weight Management
Intermittent fasting has been reported as an effective strategy for weight loss in overweight and obese individuals. This weight loss is often increased due to overall calorie restriction and the possible benefits of fasting. Eating in a small time window can limit extra snacking and calories. Fasting periods help with burning fat and calories. It can increase fat breakdown and metabolic rate. Although this strategy has proven effective in short-term studies, there are not many long-term studies about fasting and weight maintenance. Overall, this strategy may help with weight maintenance. It can reduce calorie intake and possibly increase metabolic rate and fat breakdown.

The “Keto Diet” AKA Modified Atkins Diet
Although it seems like a recent fad, the KD has long been used for the treatment of seizures. Today, it is often promoted for its fat-burning potential. The KD is a high-fat diet which puts the body into a state that resembles starvation. It is a way to force the body to breakdown fat as its primary energy source. This is different from a balanced diet, where carbs are the main energy source.

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There are many variations of the KD. A strict KD requires about 85-90% of calories from fat. This is challenging to achieve as carbs are found in almost all food and drinks. A strict KD is usually limited to patients with seizures. The popular term “keto diet” often refers to a modified Atkins diet (MAD). This diet consists of 60-70% of calories from fat and 20-35% of calories from protein. The “keto diet” or MAD will be discussed here.

**Performance Optimization**

There is evidence that a MAD can benefit athletes in a few ways. For weight-class and power-sport athletes, the MAD has been shown to decrease overall body mass while maintaining strength. It has also been shown that a MAD may be helpful for endurance athletes. During these events, fat becomes a necessary fuel source. Having a better ability to use fat for energy can improve performance over long periods of exercise.

Despite possible benefits, there are also some performance downfalls. At the beginning of a MAD people may feel tired and weak. This is due to low blood sugar levels. In the beginning, the body has not adapted to use fat as a primary fuel source and performance may suffer. This short-term downfall is sometimes referred to as the “keto flu”. It may take weeks to months to adapt to the new diet before seeing any performance benefits.

**Weight Management**

There are many promising aspects of the MAD for weight management. The first is that eating fat decreases hunger. This can improve portion control and prevent extra snacking. Another possible benefit of the MAD is its fat-burning potential while preserving muscle. It has been shown that individuals on a calorie-restricted MAD keep more muscle mass than those on a higher-carb diet during the weight loss process. Additionally, increased protein intake with the MAD can increase the number of calories you burn in a day. More energy is required to break down protein than fat or carbs. This can help in weight management.

Despite these benefits, certain vitamins and minerals may be lacking in this diet. If attempting this diet, it is important to pay close attention to your vitamin and mineral intake. It should also be noted that the long-term effects of this diet have not been widely studied.

**Conclusion**

Today, the KD, IF, and MyPlate are all popular diet patterns. They all pose possible benefits and downfalls for performance optimization and weight management. It is important to know your facts prior to committing to a diet. Eating plans are highly personal, and there is no one diet that will work for everyone.

**Resources/References:**