

POPULAR DIETS AND MICRONUTRIENT DEFICIENCIES

Many athletes look to popular diets to help meet their performance goals. While it may be beneficial for some athletes to gain lean muscle mass or lose body fat to improve performance, doing this the wrong way can cause more harm than good.

Many popular diets cut out entire food groups, which means they cut out nutrients as well. For example, if you cut out beef and other animal proteins, you cut out a good source of iron and high-quality protein in the diet. If you cut out dairy, you eliminate the best source of calcium in the American diet. If you go on a very low carbohydrate diet, you cut out an athlete's predominant source of energy. So, while a diet might look like it will help you meet a goal, the truth is cutting out whole food groups can potentially lead to a decline in performance and energy levels.

The answer? Focus on eating nutrient-rich foods the majority of the time to help provide the body with the nutrients it needs to train, perform, and recover at the highest level.



Why are trending diets so popular with athletes?

- Athletes are looking for an edge to get faster, stronger, and recover quicker.
- Promise of quick results.
- Lots of eating patterns and trendy diets promise quick results with minimal consequences.
- Information (and misinformation) is readily available.
 - » From magazines, to social media posts, to celebrity endorsements to athletes' "people", trends plague their day-to-day lives, media streams and conversations.

Do popular diets offer a performance benefit?

- Many eating patterns and trends do help athletes lean out or lose body fat, which can aid in performance.
- Many eating patterns and trends eliminate junk food, fast food, and less nutritious foods, which in turn improves diet quality.
- Athletes often experience a boost of energy and confidence to meet a goal upon embarking on new eating patterns.
- Many eating patterns and trendy diets have very strict rules and guidelines, which takes the "thinking" out of meal planning and simply "figuring it out" on the athlete's behalf.



Do popular diets cause a performance detriment?

- Some eating patterns eliminate entire food groups, which takes out essential nutrients athletes require for optimal performance.
- Eating patterns that cut out or eliminate carbohydrates can cause decreases in energy, performance, and recovery.
- Eating patterns that take out animal protein make it more difficult for athletes to get the protein they need for strength and recovery.
- Restrictive eating patterns often make it hard to eat with family and friends as well as eating at team meals.
- It is often difficult to maintain strict trendy diets, which can result in negative consequences in the long term.

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What is the Keto Diet?

- High fat (70%), moderate protein (25%), low carbohydrate (5%)
- Originally used to help reduce seizures in children and reduce/manage blood sugar in those with uncontrolled diabetes

What does the diet cut out?

- Nearly all carbohydrates
- Potatoes, whole grains, rice, starchy vegetables, beans, and desserts
- Fruit
- Milk

KETO DIET PROS

- Quick weight loss
- Don't have to reduce calories
- No need to count calories or track food intake
- Eliminates highly processed carbohydrate foods and junk foods that often provide minimal nutrients

KETO DIET CONS

- Eliminates most all carbohydrates, which can be dangerous for blood sugar and cause headaches, dizziness, fatigue, low energy, and poor mental acuity
- Does not supply enough carbohydrate energy for performance or glycogen repletion
- Cuts out most sources of fiber and many nutrients found in high fiber foods
- Not sustainable for most people



What is the Paleo Diet?

- Attempts to replicate the diets of our ancestors
- Claims to help reduce disease risk associated with "modern" foods
- Allows beef, poultry, fish, eggs, vegetables, fruit, tubers, and good fats

What does the diet cut out?

- Processed foods including all sugar, as well as artificial sweeteners
- Grains and legumes
- Most dairy foods
- Vegetable oils, margarine, and trans fats

PALEO DIET PROS

- Focuses on whole, nutrient-rich foods
- Eliminates highly processed carbohydrate foods and junk foods that often provide minimal nutrients
- Allows for indulgences like dark chocolate

PALEO DIET CONS

- Cuts out a variety of carbohydrates, including whole grains, which can contribute to reduced energy, performance, and nutrient intake
- Cuts out most dairy, which has negative effects on calcium and vitamin D intake
- Takes more preparation, making it less convenience focused
- Sustainability is questionable for most people

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Plant-Based Diets

What are plant-based eating patterns?

- Vegan – Eliminates all animal foods including dairy and eggs
- Vegetarian – May include dairy and/or eggs, but typically eliminates all animal meats, poultry, and fish
- Flexitarian – Encourages mostly plant-based foods, while allowing meat and other animal products in moderation

What foods do these eating patterns cut out?

- Oftentimes this depends on the person and individual interpretation of the eating pattern
- Typically associated with eliminating animal proteins



PLANT-BASED DIET PROS

- Focuses on nutrient-rich foods and eating more fruits and vegetables
- Should result in higher fiber intake
- Should provide enough carbohydrate for energy and performance

PLANT-BASED DIET CONS

- Eliminates or reduces intake of most high-quality protein
 - » Lack of protein could cause decreases in performance and recovery
 - » Caloric cost of plant-based proteins need to be considered in relation to athlete's overall needs
- Could cause decreased intake of certain nutrients
- Could be more costly
- Those with minimal cooking skills or capabilities might struggle

Intermittent Fasting

What is intermittent fasting (IF)?

- An eating pattern where the participant fasts or does not eat for an extended period of time
- The three most common types of IF are:
 - » 16/8 method (Leangains): Skip breakfast, period of eating lasts 8 hours, fast for 16 hours after
 - » 5/2: Restrict calories to 500-600 for two days per week, eat normally for the other five days
 - » Eat-stop-eat or Alternate Day Fasting: Fasting for 24 hours, once or twice per week

What foods can be consumed while following IF?

- IF does not have any restrictions on specific types of foods eaten making the diet relatively liberal
- It's not truly a "diet", but rather a change in eating pattern and timing



INTERMITTENT FASTING PROS

- May help improve insulin sensitivity and reduce risk of developing metabolic syndrome
- May improve memory and cognition when combined with exercise

INTERMITTENT FASTING CONS

- Exercisers who fast before training or sporting events may have decreased performance
- Exercisers may experience low energy levels during exercise
- Fasting after exercise could cause detriments in recovery and building muscle

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What is the key take-home message?

- Many trendy diets might look appealing and even beneficial, but the truth is if you are cutting out foods and/or food groups, you are limiting nutrient intake.
- Many popular diets are not sustainable long-term and thus don't produce long-term results.
- The key to accomplishing a body composition and/or performance goal is to fuel with adequate amounts of high-quality protein, complex carbohydrates, and other nutrients found in fruits, vegetables, dairy, and good fats. A well-balanced athlete's plate can help fuel performance, recovery, and a healthy body composition.

