KETONE

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KETONE SUPPLEMENTS FOR PERFORMANCE  
  
A ketone is a molecule your liver makes from fat when you don t eat for more than 72 hours, or if you follow a strict ketogenic diet. During these times, ketones are the main source of energy for your body.  
  
Ketone supplements (also known as exogenous ketones ) are marketed to enhance physical performance, weight loss, mental performance, and energy by raising ketone levels in the blood. Recently, ketone supplements have emerged as a potential alternative (or addition) to following a strict ketogenic diet in order to start or maintain nutritional ketosis (restricting carbohydrate intake to increase ketone production).  
  
Despite marketing claims, very little scientific evidence exists to support the safety and effectiveness of ketone supplements.  
  
Ketones found in dietary supplements are made in a laboratory, not by the body. Ketone supplements usually contain beta-hydroxybutyrate (BHB; a ketone), medium-chain triglycerides (MCTs, which your liver can make into BHB), or both, along with other ingredients. BHB is often combined with minerals such as sodium, potassium, calcium, or magnesium to form ketone salts. Other ketone supplements can be in liquid form and are usually referred to as ketone esters.   
  
Possible side effects of ketone supplements include gastrointestinal upset, vomiting, diarrhea, and indigestion. BHB as a ketone salt might cause mild dehydration. Frequent or long-term consumption of ketone salts might have negative effects on blood pressure, but this has not yet been confirmed.  
  
Ketone supplements must be taken at regular intervals to maintain increased blood ketone levels. This can be challenging because most ketone supplements don t taste very good.  
  
In general, very few reliable scientific studies have explored the effects of ketone supplements. A few clinical trials have used ketone supplements to increase blood ketone levels over the short term (less than one week). However, the evidence is mixed regarding the safety and effectiveness when used for physical performance. Most data come only from highly-trained endurance athletes and do not apply to military operations. There is very little scientific evidence regarding the safety and effectiveness of ketone supplements for any of the other marketed claims.  
  
For more information, please read HPRC s article about ketogenic diets.