



# Exogenous Ketones

Induces acute ketosis within 15 minutes<sup>†</sup>

## What Is a Ketogenic Diet?

Low in carbohydrates with moderate protein and high in fat, a ketogenic diet prompts the body to burn fat for energy rather than glucose, which leads to the production of ketone bodies—molecules that can be used as a source of fuel. A typical ketogenic diet consists of ~70% fat, 20% protein, and 10% carbohydrates. Though this can vary slightly depending on the individual, this diet is specifically designed to induce nutritional ketosis, a metabolic state in which the body shifts toward the use of fat (both from fat stores and from the diet) as the primary source of fuel. Increased ketone bodies levels and the ketogenic diet can provide numerous health benefits.

## What Are Exogenous Ketones?

There are three different ketone bodies: acetone, acetoacetate, and beta-hydroxybutyrate (bHB). Exogenous ketones are ketone bodies in either mineral or ester forms that can be ingested in supplemental form—producing elevations in circulating ketone levels. Nutritional ketosis resulting from adherence to a ketogenic diet is often referred to as endogenous ketosis in contrast to peripheral ketosis induced by supplementation, referred to as exogenous ketosis.

## Why Exogenous Ketone Salts?

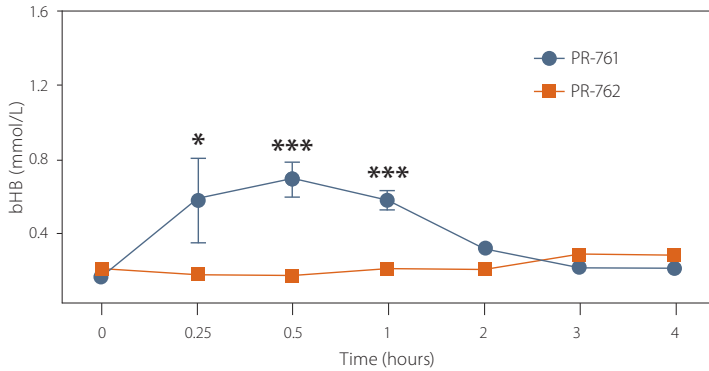
- Deliver 11.7 grams of exogenous ketones in the form of beta-hydroxybutyrate (bHB) salts
- Rapidly induce acute ketosis within 15 minutes
- Temporarily increase circulating ketone levels for at least one hour, making them available for use as an additional energy source
- May help temporarily promote a state of ketosis
- Convenient option to facilitate a ketogenic lifestyle and to support ketogenic program goals

\*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

## Clinical Research:

In a clinical study at the FMRC, the Functional Research arm of Metagenics, subjects given the Exogenous Ketone Salts at 11.7 g (PR-761) were found to have a significant increase in circulating bHB levels within one hour compared to control (PR-762). The magnitude of the rise in bHB was comparable to that seen in ketogenic diet or periods of fasting. Additionally, circulating bHB concentrations were shown to be increased in as little as 15 minutes, reaching peak levels 30 minutes following consumption (Figure 1).

Figure 1



**Form:** Powder

**Serving Size:** 1 Scoop (18.8 g)

Calories.....	.60
Total Carbohydrate.....	1 g
Calcium.....	1,260 mg
(from calcium beta-hydroxybutyrate)	
Sodium.....	1,160 mg
(from sodium beta-hydroxybutyrate)	
beta-Hydroxybutyrate (bHB).....	11.7 g
(from a blend of calcium beta-hydroxybutyrate and sodium beta-hydroxybutyrate)	

\*Percent Daily Values are based on a 2,000 calorie diet.

\*\*Daily Value not established.

**Other Ingredients:** Citric acid, gum acacia, Rebaudioside A (from Stevia rebaudiana leaf extract), silica, natural flavors, and beet powder (colour).

**Directions:** Dissolve one scoop (18.8 g) in 350ml of water. Take one serving per day or as directed by your healthcare practitioner.

**This product is non-GMO, gluten-free, and vegetarian.**

**Warning:** Take only as directed under the direction of a licensed healthcare practitioner. Do not exceed two servings per day. Not for use in patients with severe or chronic kidney disease, hypothyroidism, hyperparathyroidism, hyper or hypophosphatemia. Do not take if currently taking certain antibiotics, cardiovascular or thyroid medications.

**Caution:** Not to be taken if pregnant or nursing. Keep out of reach of children. Each serving provides 1,160 mg of sodium and 1,260 mg of calcium. Take only as directed by your healthcare practitioner to avoid excess sodium and calcium intake.

**Storage:** Keep tightly closed in a cool, dry place.

### Complementary Products:

- **Ketogenic Shake:** Offers 14 g of fat and 5 g of carbohydrates per serving
- **MCT Oil or MCT Powder:** Helps to increase ketone production
- **Ketogenic Soup:** Savory chicken-flavoured soup with 14 g of fat and 4 g of carbohydrates per serving