CLAIMS

1. Use of a composition comprising 0.5 g to 10 g of R-beta-hydroxybutyrate salt for treating or improving one or more of the following conditions in a healthy individual: weight loss and/or maintenance; elevated beta-hydroxybutyrate levels in the blood; elevated, reduced, and/or maintenance of blood ketone levels; induction and/or maintenance of ketosis; cognitive function; gluocose tolerance; decrease blood glucose levels; suppressing appetite; symptoms associated with aging; provide anti-glycation affects; performance; strength; increase muscle mass; increase fat loss; and/or combinations thereof, wherein the composition is to be orally administered.

2. The use of claim 1 wherein the composition comprises less than 2 g of R-beta-hydroxybutyrate.

3. The use of claim 1 wherein the composition further comprises at least one additional compound, and wherein at least one of the additional compounds comprises one or more fatty acids, one or more esters of a fatty acid or one or more triglycerides.

4. The use of claim 1 wherein the composition further comprises at least one of: a flavoring, a vitamin, a mineral, or a binder.

5. The use of claim 1 wherein administration of the composition increases strength.

6. The use of claim 1 wherein administration of the composition increases mental acuity.

7. The use of claim 1 wherein administration of the composition increases at least one of metabolism, fat loss, fat oxidation, motor function, or muscle mass.

8. The use of claim 1 wherein the 0.5 to 10 g of R-beta-hydroxybutyrate salt comprises R-beta-hydroxybutyrate salt and at least one of a polymer of R-beta-hydroxybutyrate or R-beta-hydroxybutyrate-complex.

9. A composition consisting of:

0.5 g to 15 g of R-beta-hydroxybutyrate salt; and

optionally, at least one of a flavoring, a vitamin, a mineral, an amino acid, or a binder;

wherein administration of the composition induces or maintains ketosis in an individual.

10. A composition comprising:

0.5 g to 15 g of beta-hydroxybutyrate salt, wherein the beta-hydroxybutyrate salt comprises at least 90% by weight R-beta-hydroxybutyrate and less than 10% by weight of L-beta-hydroxybutyrate; and

wherein administration of the composition induces or maintains ketosis in an individual.

11. The composition of claim 10 wherein the composition further comprises at least one of R-beta-hydroxybutyrate- amino acid complex or R-beta-hydroxybutyrate polymer.

12. The composition of claim 10 wherein the composition further comprises at least one of a polymer of beta-hydroxybutyrate, D,L-beta-hydroxybutyrate, butyrate, butyric acid, or triglyceride tributyrin.

13. The composition of claim 10 wherein the composition comprises 5 g to 15 g of R-beta-hydroxybutyrate.

14. The composition of claim 10, wherein the composition further comprises at least one amino acid.

15. The composition of claim 10 wherein the composition comprises 1 g to 5 g of R-beta-hydroxybutyrate and 0.5 g to 2 g of amino acid.

16. The composition of claim 10 wherein the composition further comprises at least one amino acid, and wherein the amino acid comprises Leucine.

17. The composition of claim 14 wherein at least a portion of the R-beta-hydroxybutyrate salt is complexed with the amino acid.

18. The composition of claim 10 further comprising one or more additional compounds, wherein the one or more additional compounds comprises at least one of: a polymer of beta-hydroxybutyrate, D,L-beta-hydroxybutyrate, butyrate, butyric acid, triglyceride tributyrin, a fatty acid with 6-12 carbons, an ester of a fatty acid with 6-12 carbons; a fatty acid with more than 12 carbons, or an ester of a fatty acid with more than 12 carbons.

19. Use of the composition of claim 9 or 10 in the manufacture of a medicament for treating or improving one or more of the following conditions:

traumatic brain injury; diabetes; neurological disorders and/or symptoms thereof; cancer and/or symptoms thereof; inflammatory conditions; epilepsy and/or symptoms

thereof; depression and/or symptoms thereof; and/or combinations thereof, wherein the medicament is to be orally administered.

20. The use of claim 19, wherein the medicament increases motor function in individuals with Parkinson's disease.