CLAIMS

1. Use of a composition comprising 0.5 g to 10 g of R-beta-hydroxybutyrate salt in the manufacture of a medicament for treating or improving one or more of the following conditions: 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; and/or reduction; mental acuity; focus; energy; cognitive function; traumatic brain injury; diabetes; gluocose tolerance; decrease blood glucose levels; neurological disorders and/or symptoms thereof; cancer and/or symptoms thereof; inflammatory conditions; suppressing appetite; symptoms associated with aging; provide anti-glycation affects; epilepsy and/or symptoms thereof; depression and/or symptoms thereof; performance; strength; increase muscle mass; increase fat loss; body composition; mood and/or well-being; and/or combinations thereof, wherein the medicament is to be orally administered.

2. The use of claim 1 wherein the composition comprises 0.5 to 3 g of R-beta-hydroxybutyrate salt.

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:
a short chain fatty acid,
an ester of short chain fatty acid;
a medium chain fatty acid,
an ester of medium chain fatty acid;
a long chain fatty acid,
or an ester of long chain fatty acid.

4. The use of claim 1 wherein the composition is to be administered up to 5 times daily.

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

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

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

8. 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.

9. 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.

10. A composition comprising:

0.5 g to 10 g of R-beta-hydroxybutyrate salt; and

one or more additional compounds capable of increasing ketone levels independently, wherein the one or more additional compounds comprises:

a short chain fatty acid,

an ester of short chain fatty acid,

a medium chain fatty acid,

an ester of medium chain fatty acid,

a long chain fatty acid, or

an ester of long chain fatty acid;

wherein administration induces or maintains ketosis in an individual.

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

12. The composition of claim 10 wherein at least one of the additional compounds 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 at least one of the additional compounds comprises at least one of berberine, dihydroberberine, or tetrahydroberberine.

14. A composition for inducing or maintaining ketosis, the composition comprising:

pharmaceutically effective amounts of R-beta-hydroxybutyrate salt and amino acid.

15. The composition of claim 14 wherein the composition is 1 g to 5 grams of R-beta-hydroxybutyrate and approximately 0.5 to 2 g of amino acid.

16. The composition of claim 14 wherein the amino acid comprises Leucine.

17. The composition of claim 14 wherein the composition comprises a mixture of the R-beta-hydroxybutyrate salt and amino acid.

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

19. The composition of claim 18 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 short chain fatty acid, an ester of short chain fatty acid; a medium chain fatty acid, an ester of medium chain fatty acid; a long chain fatty acid, an ester of long chain fatty acid, berberine, dihydroberberine, or tetrahydroberberine.