CLAIMS

1. Use of a ketone body or ketone body ester to reduce muscle glycogen loss and/or reduce the loss of leucine, isoleucine and valine in a subject during exercise to improve endurance of the subject wherein the subject is a healthy person wherein the ketone body or ketone body ester comprises an ester of polyhydric alcohol wherein the polyhydric alcohol is not fully esterified.

2. Use according to claim 1 wherein the polyhydric alcohol is selected from R 1,3 butanediol or glycerol

3. Use according any one of the preceding claims wherein the ketone body or ketone body ester comprises a monoester

4. Use according to claim 3 wherein the monoester comprises a monoester of D-β-hydroxybutyrate.

5. Use according to claim 4 wherein the monoester comprises a monoester of D-β-hydroxybutyrate with R-1,3-butanediol and/or a monoester of D-β-hydroxybutyrate with glycerol.

6. Use according to any one of preceding claims wherein the ketone body or ketone body ester is administered to the subject whereby to reduce the loss of leucine, isoleucine and valine in the subject by at least 10% as compared to the loss of leucine, isoleucine and valine in the subject without administration of the ketone body or ketone body ester.

7. Use according to any one of preceding claims wherein the ketone body or ketone body ester is administered to the subject to reduce the loss of glycogen in the subject by at least 10% as compared to the loss of glycogen in the subject without administration of the ketone body or ketone body ester.

8. Use according to any one of preceding claims wherein the ketone body or ketone body ester is administered to the subject to reduce the rate of loss of glycogen or protein during exercise as compared to the rate of loss of glycogen without administration of the ketone body or ketone body ester.

9. Use according to any one of the preceding claims wherein the ketone body or ketone body ester comprises a hydroxybutyrate ester or partial ester wherein the circulating levels of hydroxybutyrate and acetoacetate in the blood of the subject are from 1 to 10 mM.

10. Use of a composition in reducing muscle breakdown in a healthy subject, the composition comprising a ketone body or ketone body ester as defined in any one of claims 1 to 9 and further comprising water

11. Use according to claim 10 comprising a mid-chain triglyceride.

12. Use according to claim 11 wherein the composition comprises a mid-chain triglyceride having a formula CH_2R_1- CH_2R_2 - CH_2R_3 wherein R1, R2 and R3 are fatty acids having 5 to12 carbon atoms.

13. A method of improving endurance during exercise comprising administering to a subject before or during exercise a ketone body or a ketone body ester wherein the subject is a healthy person and the ketone body or ketone body ester comprises an ester of polyhydric alcohol wherein the polyhydric alcohol is not fully esterified.