CLAIMS

What is claimed is:

1. A calf brace for treating a condition of a lower leg of a subject, the calf brace including:

(A) a plurality of straps configured to extend around at least a portion of a calf muscle of the subject;

(B) a plurality of pressure nodes that in use, are located between the plurality of straps and the calf muscle, the plurality of pressure nodes configured to apply elevated pressure inward to a plurality of targeted zones of the calf muscle when one or more of the plurality of straps are tightened around the calf muscle;

(C) at least one pressure node element from which at least one pressure node projects, the at least one pressure node element including one or more slots for receiving one of the plurality of straps such that the position of the pressure node may be adjusted along the strap;

(D) wherein the plurality of targeted zones includes at least two of:

(a) the approximate point on the calf where the soleus muscle attaches to the posterior head of the fibula;

(b) the approximate point where the soleus muscle attaches to the middle third of the tibia; and

(c) the back of the calf at approximately the junction of the Achilles tendon and the triceps surae muscle.

2. The calf brace of claim 1 including a rod located inward of at least one of the straps, the rod extending in a substantially longitudinal direction with regard to the calf brace, the rod located so as to align, in use, with approximately the distal one third of the medial border of the tibia.

3. The calf brace of claim 1 including a torsion strap, wherein tightening of the torsion strap, in use, rotates the calf muscle in an infero-medial direction.

4. The calf brace of claim 1 including a sleeve that provides support for the plurality of straps.

5. The calf brace of claim 4 wherein at least one of the plurality of straps is attached to the sleeve such that tightening the respective strap, in use, applies torsion to the calf muscle.

6. The calf brace of claim 1 wherein at least one pressure node has a hemi-ellipsoid shape.

7. The calf brace of claim 6 wherein the hemi-ellipsoid shape is extended in a longitudinal direction.

8. The calf brace of claim 1 wherein the plurality of targeted zones includes three of:
(a) the approximate point on the calf where the soleus muscle attaches to the posterior head of the fibula;
(b) the approximate point where the soleus muscle attaches to the middle third of the tibia; and
(c) the back of the calf at approximately the junction of the Achilles tendon and the triceps surae muscle.

9. A calf brace for treatment of lower leg conditions of a wearer of the calf brace, the calf brace including:
(A) a first strap adapted to be affixed around an upper portion of the wearer's calf;
(B) a second strap adapted to be affixed around a generally central portion of the wearer's calf;
(C) a torsional strap connecting the first and second straps which in use will apply a torsional force to the wearer's calf;
(D) a third strap adapted to be affixed around a lower portion of the wearer's calf;
(E) a generally longitudinal strap connecting the second and third straps;
(F) an elongate compression member held by the longitudinal strap; and

(G) at least one pressure node which in use is located between one of the straps and the wearer's calf so as to apply at a distinct point an elevated pressure at that point to the wearer's calf, said elevated pressure being maintained by the tightness of the strap around the wearer's calf.

10. The calf brace of claim 9 wherein the at least one pressure node includes three pressure nodes, wherein a first pressure node targets a point on the calf where the soleus muscle attaches to the posterior head of the fibula, wherein a second pressure node targets a point where the soleus muscle attaches to the middle third of the tibia, and wherein a third pressure node targets a junction of the Achilles tendon and the triceps surae muscle.

11. The calf brace of claim 9 wherein the torsional strap is configured to, in use, rotate the calf muscle in an infero-medial direction.

12. The calf brace of claim 9 wherein, in use, the elongate compression member applies a pressure force to the medial border of the tibia.

13. The calf brace of claim 9 wherein at least one of the pressure nodes is hemispherical.

14. The calf brace of claim 9 wherein at least one of the pressure nodes is a hemi-ellipsoid.

15. The calf brace of claim 9 wherein a position of the pressure nodes relative to the straps is adjustable.

16. The calf brace of claim 9 including a sleeve adapted to conform to the wearer's calf wherein the sleeve provides an anchor point for one or more of the first strap, second strap and third strap, and wherein the at least one pressure node includes three pressure nodes including a first pressure node located between the first strap and the calf, a second pressure

node located between the second strap and the calf, and a third pressure node located between the third strap and the calf.