Claims

1. A compression garment for clothing a body part, the compression garment having a first panel of stretchable material joined to a second panel of stretchable material by a seam, wherein the stretchable material of the second panel has a higher stretch and recovery characteristic compared to the stretchable material of the second panel, and wherein, in use, the first panel of stretchable material is adapted to support a larger, more powerful muscle group than the second panel.

2. The compression garment of claim 1, wherein the body part is an arm, a leg, the upper torso, the lower torso, or a combination of these.

3. The compression garment of claim 1 or 2, which comprises a short, a long tight or top, either as a single garment or in a combination of garments intended to be worn as a suit.

4. The compression garment of any one of the preceding claims, which is made from two or more different elastomeric materials.

5. The compression garment of any one of the preceding claims, which is made of a plurality of panels of fabrics of elastane or similar stretch material.

6. The compression garment of claim 5, wherein the panels are combined with nylon or polyester or similar stretch materials of 40 to 60 or up to 500 denier material.

7. The compression garment of claim 6, wherein a stretch along a warp of each panel of fabric is between 120% and 225% and its number for recovery is between 5% and 40%.

8. The compression garment of any one of the preceding claims, wherein the second panel is made of material which is of lower denier, or greater elasticity compared to the material of the first panel.

9. The compression garment of any one of the preceding claims, wherein the first panel is capable of effecting a compression value of between 5mm Hg and 25mm Hg.

10. The compression garment of any one of claims 1 to 8, which is capable of effecting a compression level of up to 40mm Hg for therapy purposes.

11. The compression garment of any one of claims 1 to 8, which has a compression level of less than 25mm Hg, ranging down to 5mm Hg, for active wear and 30mm Hg, ranging down to 8mm Hg, for inactive or non sports usage.

12. The compression garment of any one of the preceding claims, wherein the material of the first and/or second panels has a "wicking" effect, so that in use it draws moisture from the body.

13. The compression garment of any one of the preceding claims, wherein the panels represent patterns of arrangement of muscle structure.

14. The compression garment of any one of the preceding claims, wherein the first panel fully covers the muscle belly of the following muscle groups: gluteals (gluteus maximus), quads (quadriceps, located at the front of the thighs), hams (hamstrings, located at the back of the thighs), calves (located at the back of the lower leg), traps (trapezius, located in the upper back of the torso), lats (latissimus dorsi, mid side back of the torso) and rectus abdominis (the front abdominals).

15. The compression garment of any one of the preceding claims, wherein the second panel is capable of supporting a muscle group having a greater degree of shortening and longer tendons, thereby allowing minimal force to stretch with good recovery.

16. The compression garment of any one of the preceding claims, wherein the seam is a flat stitched seam joining panels of elastomeric material.

17. The compression garment of any one of claims 1 to 15, wherein the seam is a line or ridge of greater thickness than the surrounding area of the compression garment and is formed by gluing, stitching or any other means.

18. The compression garment of either 16 or 17, wherein the stitching is flat stitching using a four or six needle process.

19. The compression garment of any of the preceding claims, wherein the seam or stitching line follows either an origin or insertion point of the muscle and proceeds along fascial lines or bony prominences where there is low blood supply.

20. The compression garment of any one of the preceding claims, wherein when the garment is an upper body garment, the seam follows the fibre direction of the external oblique muscles (outer side abdominals).

21. The compression garment of any one of the preceding claims, wherein when an upper body garment is used together with a lower body garment, a concurrent functional mechanism is created to involve gradient compression during dynamic movements.

22. A compression garment for clothing a lower body part of a wearer, the compression garment including a first panel of stretchable material joined to a second panel of stretchable material by a first seam, the second panel being joined to a third panel or the first panel by a second seam, wherein the second panel is adapted in use to be located along a substantial part of the illiotibial band of the wearer.

23. The compression garment of claim 22, wherein the second panel is adapted in use to extend substantially from the tensor fasciae latae of the wearer along the illiotibial band towards the knee.

24. A compression garment for clothing a lower body part of a wearer, the compression garment having a first panel of stretchable material joined to a second

panel of stretchable material by a first seam, wherein the stretchable material of the second panel has a higher stretch and recovery characteristic compared to the stretchable material of the second panel, and wherein, in use, the first panel of stretchable material is adapted to support a larger, more powerful muscle group than the second panel; wherein the second panel is joined to a third panel or the first panel by a second seam, the second panel being adapted in use to be located along a substantial part of the illiotibial band of the wearer;
wherein the second panel is also joined to a fourth panel of greater elasticity, the fourth panel designed in use to be located over the knee.

25. The combined compression garment of claim 24, wherein when the second panel is of greater elasticity than the first and second panels and the fourth panel is of even greater elasticity, the lower body garment is designed to reduce excessive pressure over the illiotibial band and the tensor fasciae latae, at the same time allowing the desired degree of knee flexion.

26. A compression garment for clothing a body part being a lower leg of a wearer, the compression garment having a first panel of stretchable material joined to a second panel of stretchable material by a seam adapted in use to at least partially divide the triceps surae of the wearer.

27. The compression garment of claim 26, wherein the seam splits the lateral and medial gastrocnemius attaching the superior portion of an achilles panel at the musculo-tendonous junction.

28. The compression garment of claim 27 adapted to provide a dual panel system capable of permitting individual, specific support and compression of grastrocnemius bellies.

29. The compression garment of any one of claims 26 to 29, wherein the compression garment takes a form of an elongated sock or stocking.

30. The lower body compression garment as claimed in any one of claims 1, 22 or 24, which includes an achilles panel which represents a second panel according to the first aspect of the invention.

31. The compression garment of any one of claims 1, 22, 24 or 26, which is capable of utilising a combination of compressive and high stretch/recovery fabrics in the postero-lateral panels of the waist and thigh.

32. The compression garment for clothing a lower body part, which includes a waist band made from a panel of stretchable material having chosen stretch and recovery characteristics designed so that the waist band does not need to include an elastic insert in the rear of the garment.

33. The compression garment of claim 32, which also includes an elastic insert in the front of the garment.

34. The compression garment of any one of claims 1, 22 or 24, which includes a waist band made from a panel of stretchable material having chosen stretch and recovery characteristics designed so that the waist band does not need to include an elastic insert in the rear of the garment.

35. A compression garment for clothing an upper body part of a wearer, the compression garment having a first panel of stretchable material joined to a second panel of stretchable material by a seam, wherein the seam is adapted in use to lie along a fibre direction of the external oblique muscles of the wearer.

36. The compression garment of claim 35, wherein the seam joining the first and second panels is placed so that, at the front of the garment, it is above the wearer's diaphragm area.

37. The compression garment of either claim 35 or 36, wherein, at the rear of the garment, the seam is shaped in an upward curve to provide compression to the

scapular muscles while allowing more flexibility to the lower part of the wearer's torso.

38. The compression garment of either claim 36 to 37, wherein a third panel of higher elasticity is inserted on the rear of the upper body garment in the region of the wearer's spine to permit stretching and twisting.

39. The compression garment of any one of the preceding claims, which includes one or more mesh inserts, for the purpose in aiding ventilation or to assist in dissipating body heat.

40. The compression garment of claim 39, wherein in the case of a lower body garment, the mesh insert is located below the waist band at the upper back.

41. The compression garment of either claim 39 or 40, wherein there is a second mesh insert in the crotch area.

42. The compression garment of claim 41, wherein in the case of an upper body garment, a mesh insert is provided in the underarm region or at the neckline or any other desired location.

43. A method of manufacture of a compression garment, the method including the steps of providing a first panel of stretchable material and a second panel of stretchable material and joining the first panel to the second panel by a seam.

44. A compression garment substantially as herein described with reference to any one of the accompanying drawings.

45. A method of manufacture of a compression garment substantially as herein described with reference to any one of the accompanying drawings.

Claims

1. A compression garment for clothing a lower body part of a wearer, the compression garment having a first panel of stretchable material joined to a second panel of stretchable material by a first seam and a second seam, wherein the stretchable material of the second panel has a higher stretch and recovery characteristic compared to the stretchable material of the first panel, and wherein, in use, the first panel of stretchable material is adapted to support a larger, more powerful muscle group than the second panel; wherein the second panel is joined to a third panel by a third seam, the second panel being adapted in use to be located along a substantial part of the illiotibial band of the wearer;, the third panel designed in use to be located over the knee.

2. The compression garment of claim 1, wherein, the third panel is of greater elasticity than the second panel so as to allow knee flexion.

3. The compression garment of any one of the preceding claims, which includes a waist band made from a panel of stretchable material having a chosen stretch and recovery characteristics designed so that the waist band does not need to include an elastic insert in the rear of the garment.

4. The compression garment of claim 3, further including an elastic insert in front of the garment.

5. The compression garment of claim 3 or 4, further including one or more mesh inserts, for the purpose in aiding ventilation or to assist in dissipating body heat.

6. The compression garment of claim 5, wherein the mesh insert is located below the waist band at the upper back.

7. The compression garment of claim 5 or 6, wherein there is a second mesh insert in the crotch area.