Hence, whilst such current treatments are useful, they may only be of limited assistance and there is an ongoing need for improved or alternate therapies for lymphoedema.

SUMMARY OF THE INVENTION

According to a first aspect, the invention provides a garment adapted for the prevention or treatment of the accumulation of fluid in the body of a person, including one or more portions of the inner surface of the garment, each portion faced with a flexible support which is adapted in use to engage the skin of the person, the flexible support being formed from at least an inner and an outer fabric layer, and having encapsulated resilient components between the inner and outer layers and integral therewith, so as to form an array of resilient protrusions on the inner surface of the garment, the garment being fitted so as to operatively provide an engagement between the array of resilient protrusions and the skin of the person in a first active state and a second stationary state, such that in the first active state operatively muscle movement of the body of the person induces a passive massaging action by the resilient protrusions, the passive massaging action comprising repetitive differential pressures and concomitant slight movement in the location of the differential pressure being applied by the resilient protrusions to the body of the person in the area of engagement, and in the second stationary state operatively the garment does not exert a pressure on the body of the person so that the garment does not substantially move or prevent the movement of lymphatic fluid.

In another aspect of the invention there is provided flexible support for the prophylaxis or treatment of the accumulation of a fluid in the body of a subject in need thereof, wherein the support has a plurality of protruberances for respectively applying localised pressure to an area of the subject's body with, or subject to, accumulation of the fluid, the support being configured to be worn by the subject over the area and press the protruberances against the body of the subject, and wherein the protruberances are spaced apart from one another about a face of the support.

In yet another aspect embodied by the invention there is provided a method for the prophylaxis or treatment of the accumulation of a fluid in the body of a subject, comprising:

providing a flexible support having a plurality of protruberances for respectively applying localised pressure to an area of the subject's body with, or subject to, accumulation of the fluid, the protruberances being spaced apart from one another about a face of the support; and

placing or fitting the support over the area whereby the support is retained in position and the protruberances press against said area, for the support to be worn by the subject. Typically, the protruberances are flexible and can be partially compressed when pressed against the body of the subject. Typically, the support comprises a backing about which the protruberances are spaced apart from one another. Most typically, the protruberances are arranged in a regular pattern about the backing.

Typically, the protruberances are defined by raised elements diposed on the backing.

Typically, the raised elements are fixedly mounted to the backing.

Typically, the support comprises front and rear layers of webbing between which the raised elements are retained, the rear layer of the webbing being the backing on which the raised elements are disposed, and the raised elements forming the protruberances in the front layer of the webbing.

CLAIMS

1. A flexible support for the prophylaxis or treatment of the accumulation of a fluid in the body of a subject in need thereof, wherein the support has a plurality of protruberances for respectively applying localised pressure to an area of the subject's body with, or subject to, accumulation of the fluid, the support being configured to be worn by the subject over the area and press the protruberances against the body of the subject, and wherein the protruberances are spaced apart from one another about the face of the support.

2. A support according to claim 1 further comprising a backing about which the protruberances are spaced apart from one another.

3. A support according to claim 2 wherein the protruberances are defined by raised elements disposed on the backing.

4. A support according to claim 3 wherein the raised elements are fixedly mounted to the backing.

5. A support according to claim 3 or 4 comprising front and rear layers of webbing between which the raised elements are retained, the rear layer of the webbing being the backing on which the raised elements are disposed, and the raised elements forming the protruberances in the front layer of the webbing.

6. A support according to claim 5 wherein the front and rear layers of the webbing are secured together between the protruberances by seams forming respective compartments of the webbing that house the raised elements.

7. A support according to claim 6 wherein the front and back layers of the webbing are sewn together.

8. A support according to claim 6 or 7 wherein the front layer of the webbing generally conforms to the shape of the raised elements thereby forming the protruberances.

9. A support according to any one of claims 3 to 8 wherein the raised elements are fluid filled.

10. A support according to claim 9 wherein respective of the raised elements are gas-filled.

11. A support according to any one of claims 3 to 10 wherein each rasied element is a bubble defined by an outer membrane of the bubble.

12. A support according to any one of claims 3 to 11 wherein the raised elements are interconnected to one another.

13. A support according to any one of claims 1 to 12 wherein the raised elements are mound shaped elements.

14. A support according to any one of claims 1 to 13 wherein the protruberances are flexible and adapted to be partially compressed when pressed against the body of the subject.

15. A support according to any one of claims 1 to 13 being air and moisture permeable between respective of the protruberances in a direction from said face of the support to an opposite face of the support.

16. A support according to any one of claims 1 to 15 wherein the support is adapted to receive, or be fastened about, the subject's body.

17. A support according to any one of claims 1 to 16 wherein the support includes fastening means for retaining the support in position on the subject when the support is worn by the subject.

18. A support according to any one of claims 1 to 17 wherein the support is a garment, a wrap, or a sleeve.

19. A support according to claim 18 wherein the support is an undergarment.

20. A support according to any one of claims 1 to 19 comprising at least one panel or segment having the protruberances.

21. A support according to any one of claims 1 to 17 being an insert in combination with a garment, a wrap, or a sleeve for being worn by the subject, the protruberances of the insert being arranged to face the area of the subject's body.

22. A support according to any one of claims 1 to 21 wherein the protruberances are mounds.

23. A support according to claim 22 wherein respective of the mounds are generally dome shaped.

24. A support according to any one of claims 1 to 23 for the prophylaxis or treatment of lymphoedema.

25. A method for the prophylaxis or treatment of the accumulation of a fluid in the body of a subject, comprising:

providing a flexible support having a face with a plurality of raised protruberances for respectively applying localised pressure to an area of the subject's

body with, or subject to, accumulation of the fluid, the protruberances being spaced apart from one another about the face of the support; and

placing or fitting the support over the area whereby the support is retained in position and the protruberances press against said area, for the support to be worn by the subject.

26. A method according to claim 25 wherein the support is as defined in any one of claims 1 to 24.

27. A method according to claim 25 or 26 wherein the accumulation of fluid is oedema.

28. A method according to claim 27 wherein the oedema is lymphoedema.

29. A flexible support for effective passive massage of the body of a subject, wherein the support has a face with a plurality of raised protruberances for respectively applying localised pressure to an area of the subject's body, the support being configured to be worn by the subject over the area and press the protruberances against the body of the subject, and wherein the protruberances are spaced apart from one another about the face of the support.

30. A method for effecting passive massage of the body of a subject, comprising providing a flexible support having a face with a plurality of raised protruberances for respectively applying localised pressure to an area of the subject's body, the mounds being spaced apart from one another about the face of the support; and placing or fitting the support over the area whereby the support is retained in position and the protruberances press against said area, for the support to be worn by the subject.

CLAIMS

1. A garment adapted for the prevention or treatment of the accumulation of fluid in the body of a person, including one or more flexible supports adapted in use to engage the skin of the person, each flexible support including a front and rear layer of webbing, and having resilient protuberances between the front and rear layers and integral therewith, so as to form an array of resilient protuberances spaced apart on a face of the flexible support to engage the skin of the person, wherein the resilient protuberances are defined by raised elements and are selected from one or more of a foam material, a gas filled bubble, or a liquid filled bubble, wherein the front and rear layers of webbing are fixed together between the protuberances forming respective compartments of the webbing that house the resilient protuberances, wherein the garment when fitted to the body of the person operatively provides an engagement between the array of resilient protuberances and the skin of the person, such that operatively muscle movement of the body of the person induces a passive massaging action by the resilient protuberances, the passive massaging action comprising repetitive differential pressures and concomitant slight movement of individual protuberances at different times in the location of the differential pressure being applied by the resilient protuberances to the body of the person in the area of engagement, such that the fluid in the area of engagement and associated regions is progressively driven along by passive massaging action of the protuberances.

2. A garment according to claim 1 wherein the protuberances are retained in position by individual closed compartments each closely enveloping the protuberance, the individual closed compartments being formed by the securing of the front and rear layers together to form seams between respective rows of protuberances on the face of the flexible support.

3. A garment according to claim 2 wherein the protuberances comprise an outer membrane such that the protuberances are adapted to be partially compressed at least while performing the passive massaging action, but restrained against complete collapse in use.

4. A garment according to claim 2 or claim 3 wherein the front and rear layers of webbing are sewn together.

5. A garment according to any one of claims 1 to 4 wherein the protuberances are generally dome shaped.

6. A garment according to any one of the preceding claims, wherein the protuberances are adapted to be applied to one or more regions of the person’s body where a blockage or tissue damage responsible for fluid accumulation is located with or without visible associated swelling.

7. A garment according to any one of the preceding claims, wherein the front and rear layers are air and moisture permeable between respective protuberances in a direction from the face of the support to an opposite face of the support.