AMENDMENT TO CLAIMS

[July 22, 2013, received by the International Bureau]

1. [Amended] A compression and decompression control system comprising:

a band adapted to be placed around a particular part of a limb of a user and to apply a compression force to the particular part; and

a controller for controlling the compression force applied to the particular part with the band,

wherein the controller controls the compression force applied with the band in a manner that a compression operation applying a predetermined compression force to the particular part and a decompression operation completely removing the compression force applied to the particular part by the compression operation are alternately repeated, and

wherein, for plural times of the compression operations, the controller sets the compression force in each compression operation to be higher than the corresponding compression force in the next preceding compression operation.

2. The compression and decompression control system according to claim 1, further comprising:

a shape retaining member for retaining a loop shape of the band that has been placed around the particular part;

a gas bag provided on the band; and

a pressure control unit for supplying a gas to the gas bag through a certain tube or for removing a gas from the gas bag,

wherein the controller controls the pressure control unit to achieve the compression operation and the decompression operation.

3. The compression and decompression control system according to claim 1 or 2, wherein the controller sets a duration of each of the compression operation and the decompression operation within a range from 10 to 30 seconds.

4. The compression and decompression control system according to any one of claims 1 to 3, wherein the band has a width ranging from 2.5 to 3 cm and is placed around a position near a base of an arm of the user.

5. The compression and decompression control system according to claim 4, wherein the controller sets the compression force in the compression operation within a range from 100 to 200 mmHg.

6. The compression and decompression control system according to claim 4 or 5, wherein the controller sets the number of times of each of the compression operation and the decompression operation to three times.

7. The compression and decompression control system according to claim 4, wherein the controller sets the compression force in the compression operation within a range from 200 to 300 mmHg.

8. The compression and decompression control system according to claim 4 or 7, wherein the controller sets the number of times of each of the compression operation and the decompression operation to four or five times.

9. The compression and decompression control system according to any one of claims 1 to 3, wherein the band has a width ranging from 5 to 6 cm

and is placed around a position near a base of a leg of the user.

10. The compression and decompression control system according to claim 9, wherein the controller sets the compression force in the compression operation within a range from 200 to 300 mmHg.

11. The compression and decompression control system according to claim 9 or 10, wherein the controller sets the number of times of each of the compression operation and the decompression operation to five times.

12. [Canceled]

13. [Amended] A method for strengthening blood vessels, the method including no medical practice, the method comprising alternately repeating: a compression step of applying a compression force to a particular part of a limb of a user with a band that is adapted to be placed around the particular part; and a decompression step of completely removing the compression force applied to the particular part in the compression step, thereby allowing vascular endothelial cells of blood vessels of the user to generate a larger amount of nitric oxide to strengthen the blood vessels,

wherein, for plural times of the compression steps, the compression force in each compression step is set to be higher than the corresponding compression force in the next preceding compression step.

14. The method for strengthening blood vessels according to claim 13, wherein a shape retaining member for retaining a loop shape of the band that has been placed around the particular part, a gas bag provided on the band,

and a pressure control unit for supplying a gas to the gas bag through a certain tube or for removing a gas from the gas bag are used, and the pressure control unit is controlled to perform the compression step and the decompression step.

15. The method for strengthening blood vessels according to claim 13 or 14, wherein a duration of each of the compression step and the decompression step is set within a range from 10 to 30 seconds.

16. The method for strengthening blood vessels according to any one of claims 13 to 15, wherein the band has a width ranging from 2.5 cm to 3 cm and is used to apply the compression force to a position near a base of an arm of the user in the compression step.

17. The method for strengthening blood vessels according to claim 16, wherein the compression force applied to the position near the base of the arm of the user is set within a range from 100 to 200 mmHg in the compression step.

18. The method for strengthening blood vessels according to claim 16 or 17, wherein the number of times of each of the compression step and the decompression step is set to three times.

19. The method for strengthening blood vessels according to claim 16, wherein the compression force applied to the position near the base of the arm of the user is set within a range from 200 to 300 mmHg in the compression step.

20. The method for strengthening blood vessels according to claim 16 or 19, wherein the number of times of each of the compression step and the decompression step is set to four or five times.

21. The method for strengthening blood vessels according to any one of claims 13 to 15, wherein the band has a width ranging from 5 cm to 6 cm and is use to apply the compression force to a position near a base of a leg of the user in the compression step.

22. The method for strengthening blood vessels according to claim 21, wherein the compression force applied to the position near the base of the leg of the user is set within a range from 200 to 300 mmHg in the compression step.

23. The method for strengthening blood vessels according to claim 21 or 22, wherein the number of times of each of the compression step and the decompression step is set to five times.

24. [Canceled]

25. [New] A method for controlling a compression and decompression control system, the system including a band adapted to be placed around a particular part of a limb of a user and to apply a compression force to the particular part, the method comprising a compression and decompression control step of controlling the compression force applied with the band in a manner that a compression operation applying a predetermined compression force to the particular part and a decompression operation

completely removing the compression force applied to the particular part by the compression operation are alternately repeated,

wherein, in the compression and decompression control step, for plural times of the compression operations, the compression force in each compression operation is set to be higher than the corresponding compression force in the next preceding compression operation.

26. [New] The method for controlling a compression and decompression control system according to claim 25, wherein the compression and decompression control system further includes a shape retaining member for retaining a loop shape of the band that has been placed around the particular part, a gas bag provided on the band, and a pressure control unit for supplying a gas to the gas bag through a certain tube or for removing a gas from the gas bag, and in the compression and decompression control step, the pressure control unit is controlled to achieve the compression operation and the decompression operation.

27. [New] The method for controlling a compression and decompression control system according to claim 25 or 26, wherein a duration of each of the compression operation and the decompression operation is set within a range from 10 to 30 seconds in the compression and decompression control step.

28. [New] The method for controlling a compression and decompression control system according to any one of claims 25 to 27, wherein the band has a width ranging from 2.5 to 3 cm and is placed around a position near a base of an arm of the user, and in the compression and decompression

control step, the compression force in the compression operation is set within a range from 100 to 200 mmHg.

29. [New] The method for controlling a compression and decompression control system according to claim 28, wherein the number of times of each of the compression operation and the decompression operation is set to three times in the compression and decompression control step.

30. [New] The method for controlling a compression and decompression control system according to any one of claims 25 to 27, wherein the band has a width ranging from 2.5 to 3 cm and is placed around a position near a base of an arm of the user, and in the compression and decompression control step, the compression force in the compression operation is set within a range from 200 to 300 mmHg.

31. [New] The method for controlling a compression and decompression control system according to claim 30, wherein the number of times of each of the compression operation and the decompression operation is set to four or five times in the compression and decompression control step.

32. [New] The method for controlling a compression and decompression control system according to any one of claims 25 to 27, wherein the band has a width ranging from 5 to 6 cm and is placed around a position near a base of a leg of the user, and in the compression and decompression control step, the compression force in the compression operation is set within a range from 200 to 300 mmHg.

33. [New] The method for controlling a compression and decompression control system according to claim 32, wherein the number of times of each of the compression operation and the decompression operation is set to five times in the compression and decompression control step.

34. [New] A compression and decompression control system comprising:

a band provided with a gas bag;

a fastener for retaining a loop shape of the band that has been placed around a particular part of at least any of limbs of a user;

a pump for supplying a gas to the gas bag through a certain tube or for removing a gas from the gas bag; and

a controller for controlling a compression force applied to the particular part with the band,

wherein the controller controls the pump in a manner that a compression operation applying a predetermined compression force to the particular part and a decompression operation completely removing the compression force applied to the particular part by the compression operation are alternately repeated, whereby controlling the compression force applied with the band, and

wherein, for plural times of the compression operations, the controller sets the compression force in each compression operation to be higher than the corresponding compression force in the next preceding compression operation.

CLAIMS

1. A compression and decompression control system comprising:

a band adapted to be placed around a particular part of a limb of a user and to apply a compression force to the particular part; and

a controller for controlling the compression force applied to the particular part with the band,

wherein the controller controls the compression force applied with the band in a manner that a compression operation applying a predetermined compression force to the particular part and a decompression operation completely removing the compression force applied to the particular part by the compression operation are alternately repeated, and

wherein, for plural times of the compression operations, the controller sets the compression force in each compression operation to be higher than the corresponding compression force in the next preceding compression operation.

2. The compression and decompression control system according to claim 1, further comprising:

a shape retaining member for retaining a loop shape of the band that has been placed around the particular part;

a gas bag provided on the band; and

a pressure control unit for supplying a gas to the gas bag through a certain tube or for removing a gas from the gas bag,

wherein the controller controls the pressure control unit to achieve the compression operation and the decompression operation.

3. The compression and decompression control system according to claim 1 or 2, wherein the controller sets a duration of each of the compression operation and the decompression operation within a range from 10 to 30 seconds.

4. The compression and decompression control system according to any one of claims 1 to 3, wherein the band has a width ranging from 2.5 to 3 cm and is placed around a position near a base of an arm of the user.

5. The compression and decompression control system according to claim 4, wherein the controller sets the compression force in the compression operation within a range from 100 to 200 mmHg.

6. The compression and decompression control system according to claim 4 or 5, wherein the controller sets the number of times of each of the compression operation and the decompression operation to three times.

7. The compression and decompression control system according to claim 4, wherein the controller sets the compression force in the compression operation within a range from 200 to 300 mmHg.

8. The compression and decompression control system according to claim 4 or 7, wherein the controller sets the number of times of each of the compression operation and the decompression operation to four or five times.

9. The compression and decompression control system according to any one of claims 1 to 3, wherein the band has a width ranging from 5 to 6 cm and is placed around a position near a base of a leg of the user.

10. The compression and decompression control system according to claim 9, wherein the controller sets the compression force in the compression operation within a range from 200 to 300 mmHg.

11. The compression and decompression control system according to claim 9 or 10, wherein the controller sets the number of times of each of the compression operation and the decompression operation to five times.

12. A method for controlling a compression and decompression control system, the system including a band adapted to be placed around a particular part of a limb of a user and to apply a compression force to the particular part, the method comprising a compression and decompression control step of controlling the compression force applied with the band in a manner that a compression operation applying a predetermined compression force to the particular part and a decompression operation

completely removing the compression force applied to the particular part by the compression operation are alternately repeated,

wherein, in the compression and decompression control step, for plural times of the compression operations, the compression force in each compression operation is set to be higher than the corresponding compression force in the next preceding compression operation.

13. The method for controlling a compression and decompression control system according to claim 12, wherein the compression and decompression control system further includes a shape retaining member for retaining a loop shape of the band that has been placed around the particular part, a gas bag provided on the band, and a pressure control unit for supplying a gas to the gas bag through a certain tube or for removing a gas from the gas bag, and in the compression and decompression control step, the pressure control unit is controlled to achieve the compression operation and the decompression operation.

14. The method for controlling a compression and decompression control system according to claim 12 or 13, wherein a duration of each of the compression operation and the decompression operation is set within a range from 10 to 30 seconds in the compression and decompression control step.

15. The method for controlling a compression and decompression control system according to any one of claims 12 to 14, wherein the band has a width ranging from 2.5 to 3 cm and is placed around a position near a base of an arm of the user, and in the compression and decompression control step, the compression force in the compression operation is set within a range from 100 to 200 mmHg.

16. The method for controlling a compression and decompression control system according to claim 15, wherein the number of times of each of the compression operation and the decompression operation is set to three times in the compression and decompression control step.

17. The method for controlling a compression and decompression control system according to any one of claims 12 to 14, wherein the band has a width ranging from 2.5 to 3 cm and is placed around a position near a base of an arm of the user, and in

the compression and decompression control step, the compression force in the compression operation is set within a range from 200 to 300 mmHg.

18. The method for controlling a compression and decompression control system according to claim 17, wherein the number of times of each of the compression operation and the decompression operation is set to four or five times in the compression and decompression control step.

19. The method for controlling a compression and decompression control system according to any one of claims 12 to 14, wherein the band has a width ranging from 5 to 6 cm and is placed around a position near a base of a leg of the user, and in the compression and decompression control step, the compression force in the compression operation is set within a range from 200 to 300 mmHg.

20. The method for controlling a compression and decompression control system according to claim 19, wherein the number of times of each of the compression operation and the decompression operation is set to five times in the compression and decompression control step.

21. A method for strengthening blood vessels, the method including no medical practice, the method comprising alternately repeating: a compression step of applying a compression force to a particular part of a limb of a user with a band that is adapted to be placed around the particular part; and a decompression step of completely removing the compression force applied to the particular part in the compression step, thereby allowing vascular endothelial cells of blood vessels of the user to generate a larger amount of nitric oxide to strengthen the blood vessels,

wherein, for plural times of the compression steps, the compression force in each compression step is set to be higher than the corresponding compression force in the next preceding compression step.

22. The method for strengthening blood vessels according to claim 21, wherein a shape retaining member for retaining a loop shape of the band that has been placed around the particular part, a gas bag provided on the band, and a pressure control unit for supplying a gas to the gas bag through a certain tube or for removing a gas from

the gas bag are used, and the pressure control unit is controlled to perform the compression step and the decompression step.

23. The method for strengthening blood vessels according to claim 21 or 22, wherein a duration of each of the compression step and the decompression step is set within a range from 10 to 30 seconds.

24. The method for strengthening blood vessels according to any one of claims 21 to 23, wherein the band has a width ranging from 2.5 cm to 3 cm and is used to apply the compression force to a position near a base of an arm of the user in the compression step.

25. The method for strengthening blood vessels according to claim 24, wherein the compression force applied to the position near the base of the arm of the user is set within a range from 100 to 200 mmHg in the compression step.

26. The method for strengthening blood vessels according to claim 24 or 25, wherein the number of times of each of the compression step and the decompression step is set to three times.

27. The method for strengthening blood vessels according to claim 24, wherein the compression force applied to the position near the base of the arm of the user is set within a range from 200 to 300 mmHg in the compression step.

28. The method for strengthening blood vessels according to claim 24 or 27, wherein the number of times of each of the compression step and the decompression step is set to four or five times.

29. The method for strengthening blood vessels according to any one of claims 21 to 23, wherein the band has a width ranging from 5 cm to 6 cm and is use to apply the compression force to a position near a base of a leg of the user in the compression step.

30. The method for strengthening blood vessels according to claim 29, wherein the compression force applied to the position near the base of the leg of the user is set within a range from 200 to 300 mmHg in the compression step.

31. The method for strengthening blood vessels according to claim 29 or 30, wherein the number of times of each of the compression step and the decompression step is set to five times.

32. A compression and decompression control system comprising:

a band provided with a gas bag;

a fastener for retaining a loop shape of the band that has been placed around a particular part of at least any of limbs of a user;

a pump for supplying a gas to the gas bag through a certain tube or for removing a gas from the gas bag; and

a controller for controlling a compression force applied to the particular part with the band,

wherein the controller controls the pump in a manner that a compression operation applying a predetermined compression force to the particular part and a decompression operation completely removing the compression force applied to the particular part by the compression operation are alternately repeated, whereby controlling the compression force applied with the band, and

wherein, for plural times of the compression operations, the controller sets the compression force in each compression operation to be higher than the corresponding compression force in the next preceding compression operation.