



US 20130254971A1

(19) **United States**  
(12) **Patent Application Publication**  
**GALLUZZO et al.**

(10) **Pub. No.: US 2013/0254971 A1**  
(43) **Pub. Date: Oct. 3, 2013**

(54) **SEAMLESS CIRCULAR OR WARP KNITTED COMPRESSION GARMENT WITH TARGETED ANATOMICAL MUSCULATURE SUPPORT**

**Publication Classification**

(51) **Int. Cl.**  
*A41D 1/00* (2006.01)  
(52) **U.S. Cl.**  
CPC ..... *A41D 1/00* (2013.01)  
USPC ..... *2/115; 2/69; 2/400; 2/228; 2/227; 2/239; 450/1*

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(21) Appl. No.: **13/791,894**

(22) Filed: **Mar. 8, 2013**

**Related U.S. Application Data**

(60) Provisional application No. 61/608,329, filed on Mar. 8, 2012.

(57) **ABSTRACT**

A compression garment comprising of targeted higher compression muscle support zones knitted in seamlessly and lower compression zones knitted seamlessly in-between and around the targeted higher compression muscle support zones, thereby isolating each targeted higher compression muscle support zone from one another; wherein the total seamless construction provides targeted anatomical muscle compression support, and said construction collectively defines and overlays the human musculature surface anatomy of the wearer of the garment.

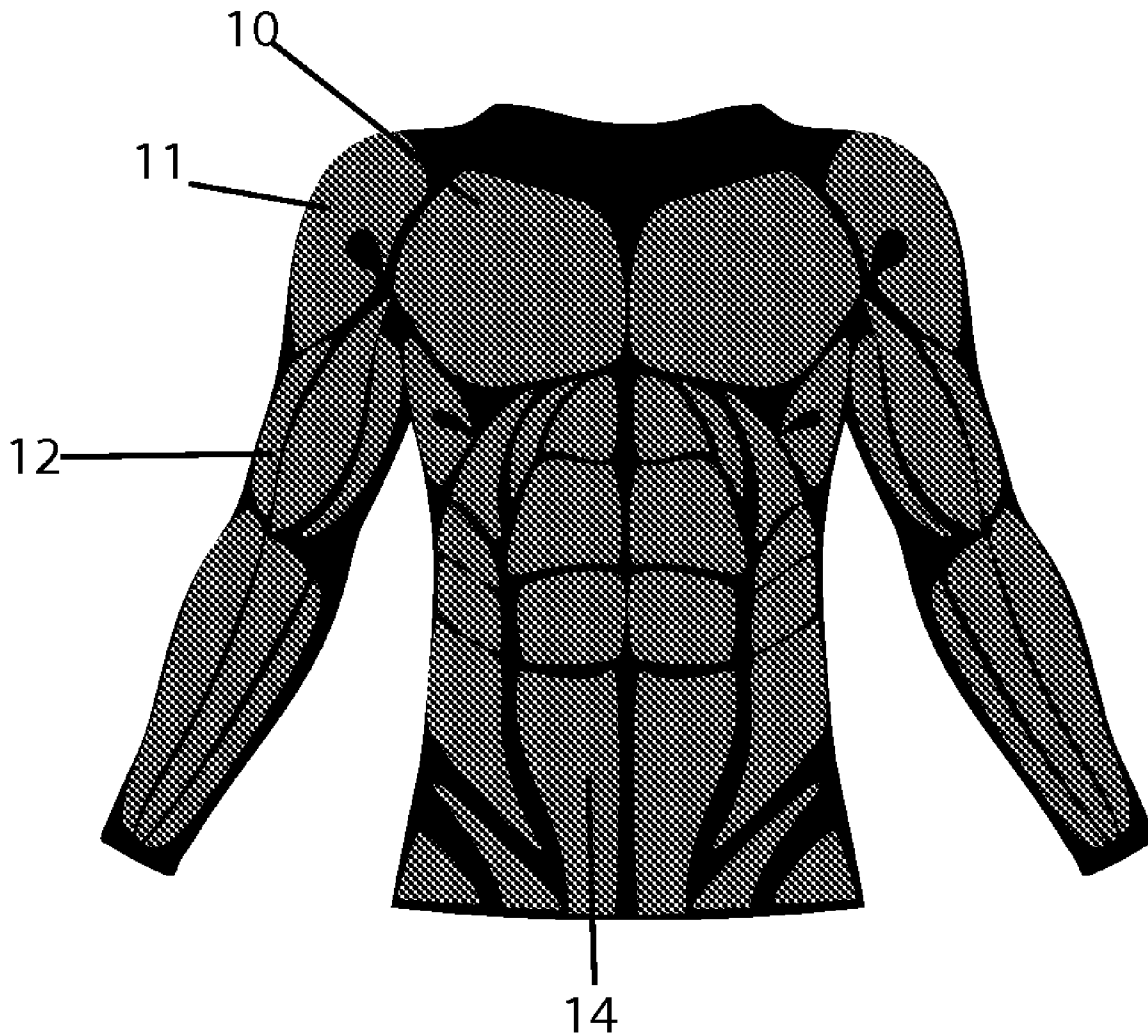


FIG. 1

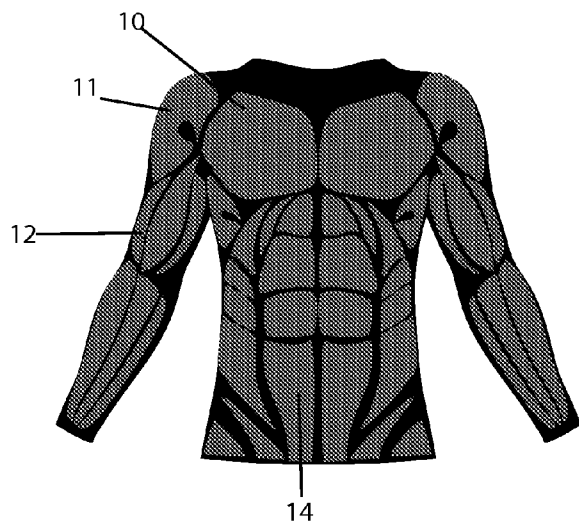


FIG. 2

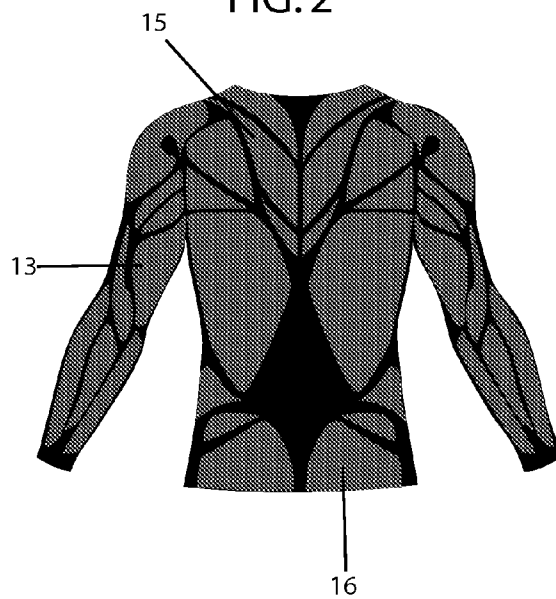


FIG. 3

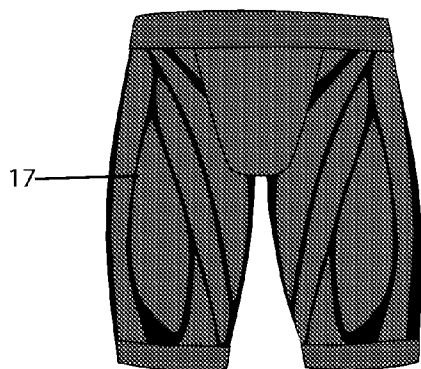


FIG. 4

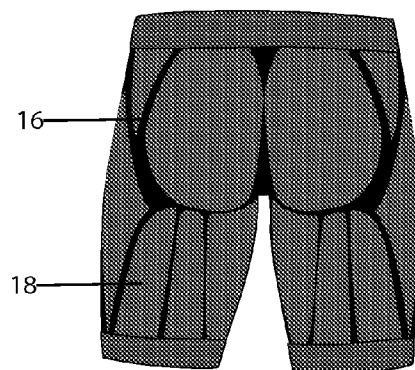


FIG. 5

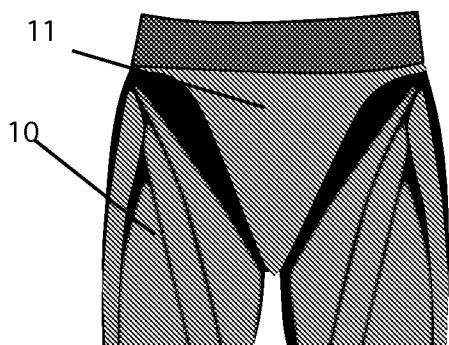


FIG. 6

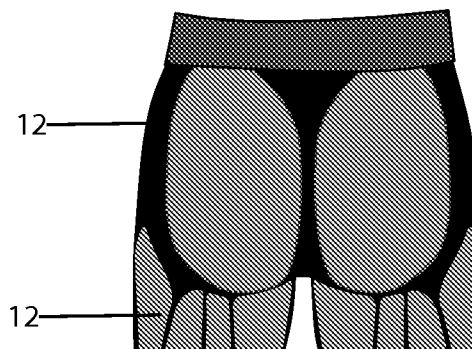


FIG. 7

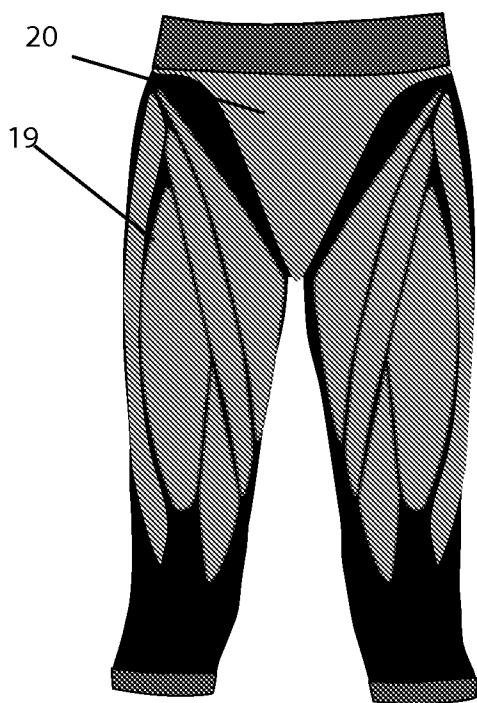
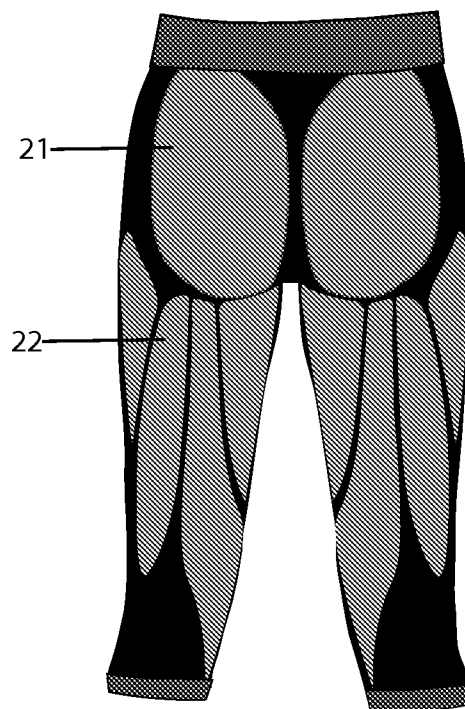


FIG. 8



**SEAMLESS CIRCULAR OR WARP KNITTED  
COMPRESSION GARMENT WITH  
TARGETED ANATOMICAL MUSCULATURE  
SUPPORT**

**FIELD OF THE INVENTION**

[0001] The present invention relates to a compression garment and in particular a seamless compression garment for providing targeted anatomical muscle support, as well as increased circulation, and better recovery from athletic activity.

**BACKGROUND**

[0002] In today's athletic environment, many athletes wear compression garments for numerous purported advantages including muscle support for injury prevention, as well as reduced muscle vibration and better circulation, which can aid in recovery from fatigue.

[0003] Most compression garments do not however provide targeted support to areas of the body, but rather overall compression. As a result, compression garments have inherent unwanted push-pull effects that reduce the garment ability to maintain optimal compression support for complex moving muscles. Some compression garments provide some targeted higher compression zones by sewing higher compression fabric panels in dedicated areas and adjoining the panel shapes at the seams, however the amount of targeted support zones is always limited due to the practical construction complications that will always arise from sewing too many seam lines in the garment. In addition an abundance of seams naturally leads to a higher propensity towards the possibility of skin chaffing for the wearer of the garment, regardless even if the seams are flat-locked.

**SUMMARY OF THE INVENTION**

[0004] The present invention is based on a seamless circular or warp knitted garment compression garment that provides targeted anatomical musculature support to help address the aforementioned issues with current compression garments in the market.

[0005] The seamless compression garment comprises of targeted higher compression muscle support zones that are knitted seamlessly in the garment, and relative lower compression zones that are knitted seamlessly in-between and around the targeted higher compressive muscle support zones, thereby isolating the higher compression muscle support zones for each target muscle from one another.

[0006] Together the seamless construction collectively defines and overlays the human musculature surface anatomy of the wearer of the garment. Thus for example, the construction for a long sleeve shirt garment shall collectively define and overlay the human musculature surface anatomy for the upper body of the wearer of the garment, including the chest, shoulders, back, arms, and abdominals, while the construction for a long pant garment shall collectively define and overlay the human musculature surface anatomy for the lower body of the wearer of the garment, including the glutes, pelvis, thighs, hamstrings and calves.

[0007] Preferably, the fabric comprises nylon and/or polyester and spandex.

[0008] Further preferably nylon and/or polyester is in the range of 80 to 91%, while spandex, Lycra®, elastane or other synthetic fibers that displays elasticity characteristics is in the range of 9-20%.

[0009] Further preferably, the garment has antimicrobial, and moisture wicking properties.

[0010] In one embodiment, the garment is a men's long sleeve top.

[0011] In another embodiment the garment is a men's short.

[0012] In another embodiment the garment is a women's short.

[0013] In another embodiment the garment is a women's capri.

[0014] It is understood that the aforementioned embodiments are merely illustrative and not intended to limit the scope, as this present invention can be applied to all forms of compression garments, including but not limited to men's and women's compression long sleeve shirts, short sleeve shirts, sleeveless shirts, underwear, shorts, pants, arm sleeves, leg sleeves, socks, and women sport bras.

**BRIEF DESCRIPTION OF DRAWINGS**

[0015] The accompanying drawings illustrate the conceptual spirit of this invention. The gray colored areas denote the targeted higher compression muscle support zones, while the black colored areas denote the relative lower compression zones in-between and around the targeted higher compression muscle support zones. It is understood that modified, abstract or artistic variations to the relative shapes of the zones illustrated herein can be implemented without departing from the scope of this invention:

[0016] FIG. 1 shows the front view of the men's long sleeve shirt according to a first embodiment of the invention;

[0017] FIG. 2 shows the back view of the men's long sleeve shirt according to a first embodiment of the invention;

[0018] FIG. 3 shows the front view of the men's short according to a second embodiment of the invention;

[0019] FIG. 4 shows the back view of the men's short according to a second embodiment of the invention;

[0020] FIG. 5 shows the front view of the women's short according to a third embodiment of the invention;

[0021] FIG. 6 shows the back view of the women's short according to a third embodiment of the invention;

[0022] FIG. 7 shows the front view of the women's capri pant according to a fourth embodiment of the invention;

[0023] FIG. 8 shows the back view of the women's short according to a fourth embodiment of the invention;

**DETAILED DESCRIPTION**

[0024] The illustrated garments as seen in all embodiments comprises of targeted higher compression muscle support zones knitted in seamlessly and lower compression zones knitted seamlessly in-between and around the targeted higher compression muscle support zones, thereby isolating each targeted higher compression muscle support zone from one another; wherein the total seamless construction provides targeted anatomical muscle compression support, and said construction collectively defines and overlays the human musculature surface anatomy of the wearer of the garment.

[0025] In FIG. 1 and FIG. 2, the compression garment is a men long sleeve top, comprising of targeted anatomical muscle support for the chest 10, shoulders 11, front arms 12, back arms 13, abdominals 14 and back 15 and partial glute 16.

[0026] In FIG. 3 and FIG. 4, the compression garment is a men's short, comprising of targeted anatomical muscle support for the glutes 16, thighs 17 and hamstrings 18.

[0027] In FIG. 5 and FIG. 6, the compression garment is a women's short, comprising of targeted anatomical muscle support for the thighs 19, pelvis 20, glutes 21, and hamstrings 22.

[0028] In FIG. 3 and FIG. 3, the compression garment is a women's capri, comprising of targeted anatomical muscle support for the thighs 19, pelvis 20, glutes 21, and hamstrings 22.

[0029] As illustrated in all embodiments, targeted higher compression is applied to each individual represented muscle, allowing the garment cling optimally to each respective targeted area. This allows the garment to maintain optimal compression support during muscle movement, unlike compression garments with limited or no targeted support that may lose some compressive support during muscle movement.

[0030] As a result the present invention helps provide better muscle support for injury prevention, as well as increased circulation, and hence better recovery from athletic activity.

[0031] The composition of the fabric, is within the range of 80 to 91% nylon and/or polyester nor similar material combined with 9 to 20% elastomeric material to provide a desired level of compression. Other suitable compression fabrics can possibly be used as will be understood by a person skilled in the art.

[0032] Additionally, the fabric can have antimicrobial properties to combat bacteria and control odor. The fabric can

also have moisture transport properties to help wick moisture away, enabling the wearer to stay dry and comfortable.

[0033] This invention is intended for use in athletic fitness activity and team sports play.

The invention claimed is:

1. A seamless circular or warp knitted compression garment comprising of targeted higher compression muscle support zones knitted in seamlessly and lower compression zones knitted seamlessly in-between and around the targeted higher compression muscle support zones, thereby isolating each targeted higher compression muscle support zone from one another;

wherein the total seamless construction provides targeted anatomical muscle compression support, and said construction collectively defines and overlays the human musculature surface anatomy of the wearer of the garment.

2. The compression garment of claims 1 wherein the garment can be men's or women's compression long sleeve shirts, short sleeve shirts, sleeveless shirts, underwear, shorts, pants, arm sleeves, leg sleeves, socks and women's sport bras.

2. The compression garment of claims 1 to 2 wherein the fabric comprises nylon and/or polyester and spandex.

3. The compression garment of claims 1 to 2 wherein nylon and/or polyester is in the range of 80 to 91%, while spandex is in the range of 9 to 20%.

4. The compression garment of claims 1 to 2 wherein the fabric has antimicrobial and moisture wicking properties.

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