

Description

The invention relates to a back support for providing abdominal and lumbosacral support as needed by the wearer, comprising a waistband of a construction having a limited amount of stretch, said waistband having first and second ends and inner and outer surfaces, means for releasably connecting said first end to said second end so that said waistband surrounds a wearer's lower back, an elastic band with its middle region operatively connected to said outer surface of said waistband and with first and second ends releasably connected to said outer surface of said waistband, so as to be easily moved between an unstretched and a stretched position. Such a back support is known from US-A-3,441,027.

This invention relates more particularly to a back support designed to prevent riding up of the support and its particularly designed for a female wearer or a wearer whose relationship between the size of the hips and the waist is that generally thought to be representative of a female body.

The present invention is for use by persons who do relatively heavy or awkward lifting, pulling or pushing, and is primarily to help prevent serious back injury by providing abdominal and lumbosacral support. It is not intended to be a therapeutic device for persons who have previous back problems or abdominal muscle injury, although it can be used to help prevent the reoccurrence of such problems. The invention is particularly useful in hospitals or nursing homes by nurses or orderlies or the like who, from time to time, might have to lift or pull up patients or residents and need some support to prevent back problems from occurring, yet during the normal course of their other daily activities, they do not need this aid. They have the need for this type of support device occasionally, so want it handy as the need arises, and also need to be comfortable while wearing the device when not needed for support. Similar applications are to be found for industry use and for workers in other trades and industries. Specifically, the present invention can readily be adapted for use by miners or other workers which need not only the benefit of the prevention of back injury, but also need to carry tools or other items with them.

There are a number of stress band type devices which have been used over the years as therapeutic devices for helping to cure various aches and pains due to muscle or other type of damage, and particularly with respect to back problems. Many of these earlier devices are constructed so that they can not be conveniently removed or unfastened and then re-fastened from time to time as the need for the added support comes and goes. In other

words, they must be worn full-time or not at all. Still others are bulky and/or cumbersome and/or fairly heavy and if used or worn as an outer garment, interfere with the normal working activities of the users. Other problems with the prior art involve complications in hook up and adjustment, cleaning and not being universal for different sizes and shapes.

For the past several years, the assignee of the present application, Ergodyne Corporation, has sold a back support which has addressed and solved many of the above-noted problems. The support is easy to use, adjustable for many different sizes, easily cleaned, and does not interfere with normal activity. It can readily be temporarily tightened for support when needed and released when normal activities occur.

While the above-mentioned back support has found great popularity and has provided for a much improved product, there are still several areas of concern relating not only to the assignee's back support but others presently available.

When such back supports have been worn by females, the support has tended to ride up on the female during use. While this has not been solely a problem for females, it has been typically been more of a problem for females due to the size of a female's hips in relationship to her waist. Typically, the hips tend to be larger in relationship to their waist. While this is of course not only a characteristic of females, females do tend to have this body shape more often than men. Accordingly, when used throughout this application, reference to females will not be limited to only females, but to persons having the more typical female body shape with respect to the hips in relationship to the waist. Also, depending on the activity engaged in by the wearer, a male may also have his support ride up while in use.

In addition, the elastic band of the back support has typically been secured by means which would not readily release the elastic band. Therefore, when an elastic band was faulty, it was necessary to replace the whole back support. In addition, it has been quite popular to now have a logo or other writing on the elastic band as that is what is visible. When ordered by different companies, they will quite often want their own logo on the elastic band. By previous methods of construction, it was necessary to keep in stock the combination of waistband and elastic band.

Applicants have found by having the elastic band removable, the same waistband may be used by many elastic bands having various logos.

Still further, the back supports to date, while comfortable, have tended to be made of a textile material, and have not had efficient transfer of heat and moisture from the wearer of the back support.

Still further, for industrial workers using tools, which are normally carried on a tool belt, back supports have not been popular as there have been the necessity of not only wearing a tool belt, but also the back support. This has proved cumbersome and the workers have tended not to wear both. U.S. Patent No. 4,782,535 does show a belt, typically worn by weight lifters, which has been adapted to hold tools. However, the tools are supported directly from the strap webbing.

The present invention addresses the problems associated with the prior art devices.

In accordance with the invention, a back support for providing abdominal and lumbosacral support as defined in the precharacterizing clause of claim 1 is characterized in that said waistband is of generally V shape, such that its top circumference lies in a plane generally perpendicular to the torso of a wearer and its bottom circumference lies in a plane not perpendicular to the torso but at its front portion higher than at its rear portion, whereby said waistband resists riding up on a wearer.

Preferable embodiments of the present invention are defined in the dependent claims.

Fig. 1 is a perspective view of the back support of the present invention;

Fig. 2 is a front elevational view of the back support shown in Fig. 1, with the back support being in an unfolded layout;

Fig. 3 is another front elevational view of a back support shown in Fig. 1 with the additional feature of a tool belt; and

Fig. 4 is a view of the loop utilized in the back support in Fig. 1 for releasably holding the elastic band.

As shown in the drawings, wherein like numerals represent like parts throughout the several views, there is generally disclosed at 10 a back support. The back support 10 includes a waistband 11 having a left half 12 and a right half 13. While this is referred to as a waistband, it is understood that the waistband 11 is designed to rest below the navel and accordingly is not defined as being literally a band around the waist, but also may be below the waist. A piece of fabric 14, is cut to the size of the entire waistband 11. Depending upon the embodiment of the invention to be constructed, the fabric 14 may be made of either a stretchable or unstretchable fabric. As will be discussed more fully hereafter, in one embodiment it is desired to have some stretchability to the waistband 11, while in other embodiments, such as when a tool belt is hung from the back support, it is desirable not to have any stretch to the waistband 11. If a stretchable material is desired, a suitable material, such as Spandex, may be utilized. If it is desired to have a non-stretchable fabric, any suitable material, such as apex, may be utilized. A plurality of semi-rigid

stays 15 are secured to the waistband 11. On the inside of the waistband 11, the stays 15 are covered by a rubberized elastic fabric 16 and on the outside by a vinyl fabric 17. As shown in the Figures, two stays 15 are utilized on both the left half 12 and right half 13. A ribbing or binding 18 is stitched around the periphery of the entire waistband 11. A loop fabric 19 is stitched to the outside of the right half 13 and a loop fabric 20 is stitched to the outside of the left half 12. On the inside of the left half 12 of the waistband 11, a hook material 21 is secured by stitching. The hook material 21 and loop fabric 19 and 20 may be of any type well-known in the industry which would form a hook and loop type fastener such as Velcro brand. The fabric 14 may be somewhat stretchable, however, the fabrics 19 and 20 are substantially non-stretchable. The fabric 14 may be suitable material such as the made stretchable Spandex® material. The binding 18 may be made of a suitable material such as tricot. As previously stated, if a stretchable material such as Spandex is utilized, the overall waistband will have some stretchability. For instance, with a waistband 11 having an overall length of approximately 107 cm (42 inches), the waistband 11 may expand from 1,3-7,6 cm (1/2 to 3 inches) and preferably from 3,8-5,1 cm (1- 1/2 to 2 inches). This allows the waistband 11 to have the capabilities of stretching and conforming to the body of the wearer. The waistband 11 has a top edge 12a and 13a and a bottom edge 12b and 13b. As can be seen in the drawings, the right half 12 and the left half 13 form a generally V-shaped waistband 11. As shown in the drawings, each half 12 and 13 form an angle of approximately 13° with a horizontal line. It has been found preferably to have this angle to be between 4°-35°, preferably 5°-20° and still further to be preferred 8°-18°. At less than 4°, there is no benefit for preventing the support from riding up. At greater than 35°, it is difficult to fit or wear the support. The waistband would end up too far above the waistline in front. At 4°, the waistband right and left half form an angle of 172°, and at 35° they form an angle of 110°. When referring to the angle formed by the two halves, the preferable range is therefore 110°-172°, preferably 140-170° and still further to be preferred 144°-164°. Adjustable suspenders, generally designated as 25, are secured to the top edge 12a and 13a of the waistband 11. The suspenders 25 may be of any type well known in the art and have shoulder pads 60. Also, the suspenders may be detachable. In another embodiment the waistband 11 may have a fibrous material laminated thereto to allow heat and moisture to be transferred away from the body of the wearer. Such a suitable fabric may be a Coolmax™ fabric by DuPont. The fabric is simply laminated to the

waistband 11 such that the fabric is adjacent the wearer of the body. Alternately, instead of being laminated to the waistband 11, the fabric (Coolmax) may be used in place of the Spandex® material forming the waistband 11.

A 10,2 cm (four inch) wide elastic band, designated generally as 30, has a top 10,2 cm (four inch) band 31 and a bottom 10,2 cm (four inch) band 32. The top band 31 is generally rectangular but has a slight V-shape and the bottom band 32 has more of a V-shape. The bands 31 and 32 are connected to each other at their ends and at the left end of bands 31 and 32 are connected by a vinyl piece 33 on the outside surface and a hoop material 34 on the bottom surface. Similarly, the right ends are connected and has a vinyl piece 35 and a hoop material underneath (not shown). The vinyl pieces 33 and 35 may also be any suitable material which is easily cleaned and is durable such as rubber or polyurethane. A loop 40 has a first end operatively connected, such as by stitching 42, proximate the top surfaces 12a and 13a and a second end operatively connected, such as by stitching 43, proximate the bottom edges 12b and 13b. This loop 40 is shown in more detail in Fig. 4. The top stitching 42 and bottom stitching 43 only fastens the ends of the loop 40 to the waistband 11. Accordingly, there is an opening between the waistband and the underneath side of the loop through which the elastic band 30 may be positioned. The loop 40, as shown in Fig. 4 is for illustrative purposes, and the loop 40 is actually continuous as shown in Figs. 1, 2 and 3. The loop in Fig. 4 is broken and bent back to illustrate the hook material 44 that is on the other side of the loop 40. Cooperatively connected to the outside surface of the first band 31 is a loop material 45 and cooperatively connected to the outside of the second band 32 is a loop material 46. The hook material 44 and loop material 45 and 46 form a two part fastener, and any suitable fastener, such as a Velcro brand may be used. Each of the bands 31 and 32 may be of any suitable length, such as approximately 58 cm (24 inches) when not stretched. When stretched, this length may be increased to a suitable length so as to provide the necessary support. While the specific design of the support will dictate the length of the stretch desired, it has been found that from 12,7-38,1 cm (5 to 15 inches) and preferably from about 22,9-33 cm (9 to 13 inches) and still more preferably 25,4-30,5 cm (10 to 12 inches) of stretch is desirable.

A belt 50, having a buckle 51 operatively connected thereto, is attached to the waistband 11. Four straps 51, 52, 53 and 54 have their first ends operatively connected, such as by stitching, to the waistband 11. Their second ends have a loop through which belt 50 may pass and be supported

thereby. On the belt 50 may be hung a variety of carriers or attachments. For instance, a simple strap 55 may have a first loop 55a through which the belt 50 may be passed and a second loop 55b through which a tool may be hung. Similarly, a pouch 56 may have two straps 57 and 58 attached thereto. The straps 57 and 58 have a loop through which the belt 50 may be passed. The pouch 56 may then be utilized to place various piece of equipment or items to be used by the wearer. The belt 50 may be specifically designed for the support 10, or may be any belt, such as a miner's belt, which may have a variety of well-known constructions.

In operation, the wearer places the suspenders 25 over her shoulders so that the right side 13 is on her right side and the left side 12 is on her left side. Then, the tension of the elastic band 30 is released by removing the ends of the elastic band away from the fabric 20 and 19. The elastic band 30, at this point, is held in position only by the loop 40 with the ends of the elastic band 30 hanging free. Then, the wearer grasps each end of the waistband 11 and stretches the right end 13 across the left and places the hook material 18 on top of the fabric 19 to secure the waistband in position. It is important that the waistband 18 firmly supports the lower back/upper buttocks. The upper edge of the waistband 12a and 13a should be below the navel.

The wearer then continues to wear the back support with the elastic band 30 having its end either loose or attached to the fabrics 19 and 20 in an unstretched state. Then, just before lifting, the ends are grabbed at locations 33 and 35 and stretched as far forward as possible, and then placed against the fabric 19 and 20 so that the hook material 34 on the left side and the hook material on the comparable right side fastens the elastic band in a stretched position.

Fig. 1 shows the device 10 on a wearer. As previously mentioned, the design of the present support 20 prevents the riding up of the support 10 during use. Because of the V-shaped waistband, the two halves 12 and 13 are able to move around the larger pelvis area without causing the support 10 to ride up as the wearer continues to wear the support 10. The prior art devices tended to have the waistband 11 generally rectangular so that, when put over the larger hips of a wearer, the prior art devices tended to ride up on the wearer.

The back support 10 has a top circumference, measured about 12a and 13a which is less than the bottom circumference measured about 12b and 13b. This is due to the V-shaped configuration of the waistband. It is contemplated that other configurations may be utilized which would have a smaller top circumference and a bottom circum-

ference, thereby preventing the waistband from riding up on the wearer.

As shown in Fig. 1, the top circumference forms a plane which would be generally perpendicular to the torso of the wearer. In contrast, the bottom surface 12a and 12b generally forms a plane which is not perpendicular to the torso. If the waistband 11 would be of even width throughout, the bottom plane would tend to be closer to perpendicular to the torso of the wearer.

If the elastic band 30 is worn out or damaged, it can easily be replaced. The ends of the elastic band simply are removed from the Velcro type fastener and one end is slipped out through the opening in the loop 40. It is then an easy matter to simply insert a new elastic band 30. This also is quite advantageous in keeping inventories low. If a logo of a business, such as a hospital, wishes to be on the elastic band, it is only necessary to inventory the elastic bands and not the combination of waistband and elastic bands. Therefore, numerous elastic bands with different logos can be in inventory without the necessity of having a large inventory of completed supports including waistbands.

The belt 50 support by straps 51-54 allows the wearer to wear a single support and also have a tool belt or miner's belt attached thereto. It is not necessary to have two separate devices around the wearer. In addition, the belt 50 with the item holders may also be utilized on a standard back support 10 that does not have the general V-shape.

Other modifications of the invention will be apparent to those skilled in the art in light of the foregoing description. This description is intended to provide specific examples of individual embodiments which clearly disclose the present invention.

Claims

1. A back support for providing abdominal and lumbosacral support as needed by the wearer, comprising:

(a) a waistband (11) of a construction having a limited amount of stretch, said waistband (11) having first and second ends (12, 13) and inner and outer surfaces;

(b) means (18, 19) for releasably connecting said first end (12') to said second end (13) so that said waistband (11) surrounds a wearer's lower back;

(c) an elastic band (30) with its middle region operatively connected to said outer surface of said waistband (11) and with first and second ends (33, 35) releasably connected to said outer surface of said waistband (11), so as to be easily moved between an unstretched and a stretched position;

characterized in that

(d) said waistband (11) is of generally V shape, such that its top circumference (12a, 13a) lies in a plane generally perpendicular to the torso of a wearer and its bottom circumference (12b, 13b) lies in a plane not perpendicular to the torso but at its front portion higher than at its rear portion, whereby said waistband (11) resists riding up on a wearer.

2. The support of claim 1, wherein top edges (12a, 13a) of the waistband (11) form an angle of from 110° - 172° .

3. The support of claim 1, wherein top edges (12a, 13a) of the waistband (11) form an angle of from 140° - 170° .

4. The support of claim 1, wherein top edges (12a, 13a) of the waistband (11) form an angle of from 144° - 164° .

5. The back support of claim 1, wherein said elastic band (30) is releasably connected with its middle region to said outer surface of said waistband (11).

6. The back support of claim 5, characterized by

(a) a loop 40 having a first end connected to a top edge (12a, 13a) of said outer surface and a second end connected to a bottom edge (12b, 13b) of said outer surface of said waistband (11), thereby forming an opening through which said elastic band (30) is positioned; and

(b) a strip of one part (44) of a two part hook and a loop fastener (44, 45, 46) attached to said loop (40) and the other part (45, 46) of the two part fastener (44, 45, 46) attached to said elastic band (30) so as to engage said strip when said elastic band (30) is positioned in said loop (40).

7. The back support of claim 1, wherein said waistband (11) is made of a fibrous material designed to transfer heat and moisture away from the body.

8. The back support of claim 1, further comprising:

(a) reinforcement pads operatively connected to each of said first and second ends (33, 35) of said elastic band (30); and

(b) means (25, 60) for suspending said back support (10) from shoulders of the wearer.

ference, thereby preventing the waistband from riding up on the wearer.

As shown in Fig. 1, the top circumference forms a plane which would be generally perpendicular to the torso of the wearer. In contrast, the bottom surface 12a and 12b generally forms a plane which is not perpendicular to the torso. If the waistband 11 would be of even width throughout, the bottom plane would tend to be closer to perpendicular to the torso of the wearer.

If the elastic band 30 is worn out or damaged, it can easily be replaced. The ends of the elastic band simply are removed from the Velcro type fastener and one end is slipped out through the opening in the loop 40. It is then an easy matter to simply insert a new elastic band 30. This also is quite advantageous in keeping inventories low. If a logo of a business, such as a hospital, wishes to be on the elastic band, it is only necessary to inventory the elastic bands and not the combination of waistband and elastic bands. Therefore, numerous elastic bands with different logos can be in inventory without the necessity of having a large inventory of completed supports including waistbands.

The belt 50 support by straps 51-54 allows the wearer to wear a single support and also have a tool belt or miner's belt attached thereto. It is not necessary to have two separate devices around the wearer. In addition, the belt 50 with the item holders may also be utilized on a standard back support 10 that does not have the general V-shape.

Other modifications of the invention will be apparent to those skilled in the art in light of the foregoing description. This description is intended to provide specific examples of individual embodiments which clearly disclose the present invention.

Claims

1. A back support for providing abdominal and lumbosacral support as needed by the wearer, comprising:
 - (a) a waistband (11) of a construction having a limited amount of stretch, said waistband (11) having first and second ends (12, 13) and inner and outer surfaces;
 - (b) means (18, 19) for releasably connecting said first end (12') to said second end (13) so that said waistband (11) surrounds a wearer's lower back;
 - (c) an elastic band (30) with its middle region operatively connected to said outer surface of said waistband (11) and with first and second ends (33, 35) releasably connected to said outer surface of said waistband (11), so as to be easily moved between an unstretched and a stretched position;

characterized in that

(d) said waistband (11) is of generally V shape, such that its top circumference (12a, 13a) lies in a plane generally perpendicular to the torso of a wearer and its bottom circumference (12b, 13b) lies in a plane not perpendicular to the torso but at its front portion higher than at its rear portion, whereby said waistband (11) resists riding up on a wearer.

2. The support of claim 1, wherein top edges (12a, 13a) of the waistband (11) form an angle of from 110°-172°.
3. The support of claim 1, wherein top edges (12a, 13a) of the waistband (11) form an angle of from 140°-170°.
4. The support of claim 1, wherein top edges (12a, 13a) of the waistband (11) form an angle of from 144°-164°.
5. The back support of claim 1, wherein said elastic band (30) is releasably connected with its middle region to said outer surface of said waistband (11).
6. The back support of claim 5, characterized by
 - (a) a loop 40 having a first end connected to a top edge (12a, 13a) of said outer surface and a second end connected to a bottom edge (12b, 13b) of said outer surface of said waistband (11), thereby forming an opening through which said elastic band (30) is positioned; and
 - (b) a strip of one part (44) of a two part hook and a loop fastener (44, 45, 46) attached to said loop (40) and the other part (45, 46) of the two part fastener (44, 45, 46) attached to said elastic band (30) so as to engage said strip when said elastic band (30) is positioned in said loop (40).
7. The back support of claim 1, wherein said waistband (11) is made of a fibrous material designed to transfer heat and moisture away from the body.
8. The back support of claim 1, further comprising:
 - (a) reinforcement pads operatively connected to each of said first and second ends (33, 35) of said elastic band (30); and
 - (b) means (25, 60) for suspending said back support (10) from shoulders of the wearer.



9. The back support of claim 1, in which said waistband (11) is of substantially unstretchable construction, and further comprises:
- (a) a plurality of support loops (51-54) being operatively connected to said waistband (11);
 - (b) a belt (50) supported through said support loops (51-54); and
 - (c) means (55, 55a, 55b; 56, 57, 58) for attaching items to said belt (50).

Patentansprüche

1. Rückenstützbandage zum Stützen des Bauch- und Lenden-Kreuzbein-Bereiches der Trägerin oder des Trägers mit
- a) einem Taillenband (11) begrenzter Dehnungsfähigkeit, das erste und zweite Enden (12, 13) sowie Innen- und Außenflächen aufweist,
 - b) Vorrichtungen (18, 19), die das erste Ende (12) mit dem zweiten Ende (13) lösbar so verbinden, daß das Taillenband (11) den unteren Rückenbereich einer Trägerin oder eines Trägers umgibt,
 - c) einem elastischen Band (30), dessen mittlerer Bereich mit der Außenfläche des Taillenbandes (11) wirksam verbunden ist und dessen erstes und zweites Ende (33, 35) mit der Außenfläche des Taillenbandes (11) lösbar so verbunden ist, daß es ohne Schwierigkeiten von einer ungedehnten in eine gedehnte Lage zu bringen ist, dadurch gekennzeichnet, daß
 - d) das Taillenband (11) im großen und ganzen V-förmig ist, so daß sein oberer Umfang (12a, 13a) in einer Ebene liegt, die generell senkrecht zum Rumpf der Trägerin oder des Trägers verläuft, und sein unterer Umfang (12b, 13b) in einer Ebene liegt, die zum Rumpf nicht senkrecht verläuft, sondern im vorderen Abschnitt höher ist als in seinem hinteren Abschnitt, was ein Hochrutschen des Taillenbandes (11) an der Trägerin oder dem Träger verhindert.
2. Stütze nach Anspruch 1, bei der die oberen Kanten (12a, 13a) des Taillenbandes (11) einen Winkel von 110° - 172° bilden.
3. Stütze nach Anspruch 1, bei der die oberen Kanten (12a, 13a) des Taillenbandes (11) einen Winkel von 140° - 170° bilden.
4. Stütze nach Anspruch 1, bei der die oberen Kanten (12a, 13a) des Taillenbandes (11) einen Winkel von 144° - 164° bilden.

5. Rückenstütze nach Anspruch 1, bei dem das elastische Band (30) mit seinem mittleren Bereich an der Außenfläche des Taillenbandes (11) lösbar verbunden ist.
6. Rückenstütze nach Anspruch 5, gekennzeichnet durch
- a) eine Schlaufe (40), deren erstes Ende mit einem oberen Rand (12a, 13a) der Außenfläche und deren zweites Ende mit einem unteren Rand (12b, 13b) der Außenfläche des Taillenbandes (11) verbunden ist und dadurch eine Öffnung bildet, durch die das elastische Band (30) in seine geeignete Lage gebracht wird, und
 - b) einen Streifen als einem Teil (44) einer zweiteiligen Hakenbandbefestigung (44, 45, 46), der an der Schlaufe (40) angeordnet ist, während der andere Teil (45, 46) der zweiteiligen Befestigung (44, 45, 46) an dem elastischen Band (30) so angebracht ist, daß er an dem Streifen angreift, wenn das elastische Band (30) in der Schlaufe (40) angeordnet ist.
7. Rückenstütze nach Anspruch 1, bei der das Taillenband (11) aus einem Fasermaterial besteht, das Wärme und Feuchtigkeit vom Körper weg leitet.
8. Rückenstütze nach Anspruch 1, die weiterhin
- a) Verstärkungen enthält, die mit den ersten und zweiten Enden (33, 35) des elastischen Bandes (30) wirksam verbunden sind, und
 - b) Vorrichtungen (25, 60) enthält zum Halten der Rückenstütze (10) auf den Schultern der Trägerin oder des Trägers.
9. Rückenstütze nach Anspruch 1, bei der das Taillenband (11) im wesentlichen nicht dehnbar ist und weiterhin
- a) eine Mehrzahl von mit dem Taillenband (11) wirksam verbundenen Halterungsschlaufen (51 - 54),
 - b) einen durch die Halterungsschlaufen (51 - 54) gehaltenen Gürtel (50) und
 - c) Vorrichtungen (55, 55a, 55b; 56, 57, 58) zum Befestigen von Gegenständen an dem Gürtel (50) enthält.

Revendications

1. Support dorsal destiné à apporter un soutien abdominal et lombo-sacral, en fonction des besoins de l'utilisateur, comprenant :
- (a) une ceinture (11) comportant une quantité limitée de matière élastique, ladite ceinture (11) comprenant une première et une



seconde extrémité (12, 13) et des surfaces intérieure et extérieure;

(b) des moyens (18, 19) pour relier de façon élastique ladite première extrémité (12) à ladite seconde extrémité (13) de façon que ladite ceinture (11) entoure le bas du dos d'un utilisateur;

(c) une bande élastique (30) dont une partie centrale est fixée à ladite surface extérieure de ladite ceinture (11) et dont les première (33) et seconde extrémités (35) sont fixées de façon élastique à ladite surface extérieure de ladite ceinture (11) de façon à passer facilement d'une position attachée à une position détachée;

caractérisé en ce que

(d) ladite ceinture (11) a une forme générale en V, de façon telle que sa circonférence supérieure (12a, 13a) se trouve dans un plan essentiellement perpendiculaire au torse d'un utilisateur, et que sa circonférence inférieure (12b, 13b) se trouve dans un plan non perpendiculaire et que sa partie avant soit plus haute que sa partie arrière, de façon que ladite ceinture (11) ait une résistance suffisante pour être portée par un utilisateur.

2. Support selon la revendication 1, caractérisé en ce que les arêtes supérieures (12a, 13a) de la ceinture (11) forment un angle compris entre 110° et 172°.

3. Support selon la revendication 1, caractérisé en ce que les arêtes supérieures (12a, 13a) de la ceinture (11) forment un angle compris entre 140° et 170°.

4. Support selon la revendication 1, caractérisé en ce que les arêtes supérieures (12a, 13a) de la ceinture (11) forment un angle compris entre 144° et 164°.

5. Support dorsal selon la revendication 1, caractérisé en ce que une partie centrale de ladite bande élastique (30) est fixée de façon élastique à ladite surface extérieure de ladite ceinture (11).

6. Support dorsal selon la revendication 5, caractérisé en ce qu'elle comprend :

(a) un passant comprenant une première extrémité reliée à une arête supérieure (12a, 13a) de ladite surface extérieure et une seconde extrémité reliée à une arête inférieure (12b, 13b) de ladite surface extérieure de ladite ceinture (11), de façon à former une ouverture au travers de laquelle

ladite bande élastique (30) est positionnée ; et

(b) une bande formant une première partie (44) d'un ensemble (44, 45, 46) constitué par un crochet en deux éléments et une attache de passant ayant une première partie (44) formée par un crochet en deux parties et une attache de languette attachée audit passant (46), la seconde partie (45, 46) étant fixée à ladite bande élastique (30) de façon à l'engager avec ladite languette lorsque ladite bande élastique (30) est positionnée dans lesdits passants (40).

7. Support dorsal selon la revendication 1, caractérisé en ce que ladite ceinture (11) est composée de matière fibreuse destinée à évacuer la chaleur et l'humidité du corps.

8. Support dorsal selon la revendication 1, comprenant de plus :

(a) des armatures rembourrées fixées à chacune desdites première et seconde extrémités (33, 35) de ladite bande élastique (30); et

(b) des moyens (25, 60) pour suspendre ledit support dorsal (10) aux épaules de l'utilisateur.

9. Support dorsal selon la revendication 1, caractérisé en ce que ladite ceinture (11) est pratiquement inextensible, et comprend de plus :

(a) une pluralité de passants (51-54) fixés à ladite ceinture (11);

(b) une ceinture (50) glissée dans et supportée par lesdits passants (51-54); et

(c) des moyens (55, 55a, 55b, 56, 57, 58) pour fixer des objets à ladite ceinture (50).

