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(54) **A PERFORMANCE GARMENT**

(57) A performance enhancing garment (2) configured to extend around a core part of the human body (44), the garment comprising: a primary elastic part (50) having a first end and a second end, where the primary elastic part is configured to cover at least a part of an anterior part of the core part, a secondary elastic part (14) having a first end (48), a second end, a superior periphery (16) and an inferior periphery (18), the secondary elastic part configured to cover at least part of an posterior part of the core part of the body, wherein the secondary elastic part is configured to superimpose at least a superior part of the gluteus medius (36) and/or the gluteus maximus (32), where the secondary elastic part has a higher tension force and/or a higher elastic force than the primary elastic part.

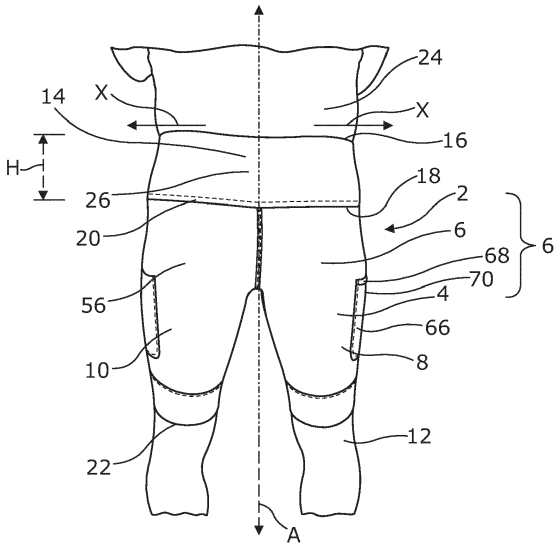

Fig. 1

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Description

Technical Field

[0001] A performance enhancing garment configured to extend around a core part of the human body, the garment comprising: a primary elastic part having a first end and a second end, where the primary elastic part is configured to cover at least a part of an anterior part of the core part, a secondary elastic part having a first end, a second end, a superior periphery and an inferior periphery, the secondary elastic part configured to cover at least part of an posterior part of the core part of the body.

Background

[0002] Training garments have, in the recent years, become more and more popular, where garments may be provided for a certain sport that are specifically designed for a type of sport to optimise the performance of the athlete using the garment. This has also increased the desire for performance enhancing garments, where the garments may be provided with a mechanical, physical or psychological attribute which may assist the athlete in increasing their efficiency in a certain movement by a small fraction, or by small percentages.

[0003] In modern athletic competitions, the small margins may become vitally important for an athlete to achieve their best performance, where the difference between the best and the second-best athlete may be very little or within a very small percentage. Such garments may e.g. be running shoes that have a certain type of elastic properties to improve energy generation, swimwear that has less drag in the water, athletic wear that has an improved moisture transportation, and so on.

[0004] One of the type of garments that are increasingly being used are compression garments, where the garment is made of a stretchable material that generally adheres tightly to an individual in one or more areas of the body, where different garments are designed to provide different degrees of compression to a body part.

[0005] However, the use of compression garments has been shown to have a positive effect on performance, at least in areas where the effect is felt by the athlete. One of the areas where a compression garment has been seen as positive is where the athletes have compression garment over a certain joint, giving the athlete joint awareness, i.e. in situations where the athlete can use the garment to provide an awareness of the joint with the compression garment, which may be used with knee compression, ankle compression, wrist compression and so on. Such garments are e.g. shown in US 8,597,222.

[0006] It has been suggested that a certain type of compression may be utilised to provide a feedback to the central nervous system, allowing the nerves and muscles to improve, based on principles of physiotherapy, where a physiotherapist may activate the use of a certain muscle and/or muscle group by using the hand to provide compression to a certain muscle, in order to make the central nervous system register this muscle using sensory feedback, thereby allowing the user to activate the muscle in a certain manner.

[0007] Thus, there is a desire to improve the use of garments, and possibly compression garments, to improve the sensory feedback of a certain muscle type.

Description

[0008] In accordance with the invention, a performance enhancing garment configured to extend around a core part of the human body is provided, the garment comprising: a primary elastic part having a first end and a second end, where the primary elastic part is configured to cover at least a part of an anterior part of the core part, a secondary elastic part having a first end, a second end, a superior periphery and an inferior periphery, the secondary elastic part configured to cover at least part of an posterior part of the core part of the body, wherein the secondary elastic part is configured to superimpose at least a superior part of the gluteus medius and/or the gluteus maximus, where the secondary elastic part has a higher tension force and/or a higher elastic force (stiffness) than the primary elastic part.

[0009] Within the context of the present disclosure, the term "core part" may mean the area of the body which is broadly considered to be the torso and may include the hips, groin and may include the upper part of the legs, such as the upper part of the muscles that surround the femur and/or the coccyx, as well as the gluteal area of the body. The core may e.g. be defined as the radial area that may follow the lumbar curve and the sacral curve of the vertebral column.

[0010] Within the context of the present disclosure, the term "superimpose" may mean to impose, place, or set over, above on something else. Thus, the term may mean that that one part may cover or overlap a second part. The covering may be in a direction from a central axis of the body and outwards, and/or from a central point of the body and outwards. Thus, if an axis would be drawn from a central part of the body and outwards (where the axis may e.g. be at a right angle to a tangential axis of the skin surface, the axis would intersect both the first part and the second part which superimposes the first part.

[0011] Within the context of the present disclosure, a higher tension force and/or a higher elastic force may mean that part requires more force to elastically deform a certain material a certain distance. The elastic part may have an ability to resist distorting and return to its original size and/or shape when an influence or force is removed from the object. The tension force and/or elastic force may be seen as the Young modulus of the material.

[0012] The purpose of the garment and/or the secondary elastic part of the garment may be to help stabilise the hip during activity. The movements and the stability of the hip depends on various muscles functioning correctly, especially on the strength of above-mentioned

muscles. When these muscles are weak or start to get tired during exercise, the stability of the hip can be challenged and start to decrease and be the cause of pain in either the hip or other places in the lower extremity.

[0013] Common types of pain related to hip instability may e.g. be: hip pain, knee pain (e.g. runners knee), patellofemoral pain, shin splints or Achilles tendinitis, to name a few.

[0014] A very common problem and cause of overuse pain and injury is weakness in the gluteal muscles, especially the gluteus medius muscle, which leads the hip to be unstable when the foot touches the ground in running and to bear the weight of the entire body. At this point, a weak or tired gluteus medius will cause the hip to be more adducted (since the action of the gluteus medius is abduction) and internally rotated.

[0015] When this adduction and internal rotation of the hip occur, the knee will have to change position accordingly, in order for the body to maintain balance in the one-legged weight bearing phase of running. This will lead the knee to turn inside in a valgus position, which again will affect the foot and often lead this to become hyperpronated in order to adapt the knee and hip position.

[0016] Thus, the secondary elastic part may function in at least two ways, where the elastic band may offer a support of the hip, due to the tension force of the material. Furthermore, the elastic band may add pressure to parts of the gluteal muscles causing a constant awareness of the muscles during run, and by doing so, keeping the muscles active and functioning as optimally as possible. This may in a simplistic way be seen as a constant pressure on a switch that turns on and keeps the muscles activated.

[0017] The secondary elastic part may therefore be utilised to apply a pressure on the muscles, in an area where the muscles are present, and not in areas where the muscles are not present. Thus, the primary elastic part may assist in maintaining the positioning of the secondary elastic part, while the secondary elastic part may apply a predefined pressure onto the muscles.

[0018] Thus, by superimposing on at least a superior part of the gluteus medius and/or the gluteus maximus and applying a pressure onto the muscles, it may be possible to trick the nervous system to be aware of the muscles during activity. This may cause the brain/person to activate the muscles during the activity, as the central nervous system recognises that the muscles are present in the skeletal system of the body. This may especially be advantageous where persons have muscles that are over- or underperforming so that during the same activity, without the sensory stimulation, the person will not activate the muscles. By providing the pressure on the muscles, the sensory input from the skin and/or the muscles may cause a sensory reaction in the nervous system, and the central nervous system may activate the muscle, as it has become aware of the muscle. Such stimulation is well known within the field of physiotherapy, where a physiotherapist may induce activity of an inactive muscle or a muscle having reduced activity during normal movement by sensory input to a part of the muscle.

[0019] The secondary elastic part may be adapted to cover a part of the muscles, where the secondary elastic part may abut the skin of the user, and provide pressure in a radial inwards direction to the skin surface, where the cutaneous layers and the subcutaneous layers are forced towards the gluteus medius and/or the gluteus maximus, causing an indirect pressure on the muscle or muscles in question. The garment may hold the secondary elastic part in place and provide a counterforce to the elastic deformation of the secondary elastic part. The garment may define a part of the primary elastic part, where the primary elastic part may provide a counterforce to the secondary elastic part, when the secondary elastic part stores an elastic force. The primary elastic part may e.g. be a waistband or the front part of a garment that extends around the torso of the body. The primary elastic part may have a low elasticity, and/or a low elongation at break, which means that the primary elastic part may provide a counterforce to the secondary elastic part.

[0020] It may be understood that humans are of varying sizes, which means that a garment that might fit one person might not be suitable for another person, as the size of the garment does not fit the size of the human. Thus, in order to overcome this, the garment may come in various sizes, where the positioning of the first and/or the second elastic part is also adapted to superimpose the desired areas of the gluteus medius and/or the gluteus maximus. Thus, a person that has a circumference of 100cm across the hip, may not be able to use a garment which is designed for a person having a circumference of 70cm. Thus, the positioning of the ends and the peripheries of the secondary elastic part may be adjusted in accordance with the size of the human that is to use the garment.

[0021] In one exemplary embodiment, the performance enhancing garment may be an outer garment extending from the waist and covering at least part of each leg separately. The performance enhancing garment may e.g. be in the form of shorts, where the shorts extend from the waist of the body of the user and extend in an inferior direction downwards towards the feet of the user, covering part of the legs. The primary elastic part may be arranged on the anterior part of the waist, while the secondary elastic part may be arranged on the posterior part of the waist, where the secondary elastic part extends in an inferior direction to cover at least part of the gluteus medius and/or gluteus maximus. The performance enhancing garment may be in the form of pants that extend from the waist and covers at least part of the legs, as well as the buttocks and the anterior part of the body from the waist down. The primary and secondary elastic part may be attached to the pants to the shorts in the same way. The performance enhancing shorts and/or pants may be tight fitting, similarly to compression tights or pants, where the secondary elastic part may be configured to provide increased compression on predefined

area of the body.

[0022] In one exemplary embodiment, the inferior periphery of the secondary elastic part may be configured to terminate above approximately 50% of the length of the gluteus maximus in a direction from superior to inferior. If the length of the gluteus maximus, in a direction from superior to inferior in the buttock area, is about 17cm, then the secondary elastic part is configured to terminate above half the distance, or about 7.5cm below the superior periphery of the gluteus maximus. More specifically the inferior periphery of the secondary elastic part may be configured to terminate above approximately 30% of the length of the gluteus maximus in a direction from superior to inferior. More specifically the inferior periphery of the secondary elastic part may be configured to terminate above approximately 10-20% of the length of the gluteus maximus in a direction from superior to inferior. The correct stimulation of the gluteus maximus may be obtained by providing a pressure on the superior part of the gluteus maximus muscle, where this pressure may induce pressure on the muscle and the pressure is registered by the central nervous system, and thereby allowing the central nervous system to activate the muscle during a movement. It may be understood that the secondary elastic part may only apply pressure to a superior part of the gluteus maximus, where the inferior boundary of the secondary elastic part may terminate at an upper part of the muscle.

[0023] In one exemplary embodiment, the first end and/or the second end of the secondary elastic part may be configured to superimpose at least an anterior part of the gluteus medius, and optionally at least a lateral part of the gluteus medius and/or a posterior part of the gluteus medius. Various part of the gluteus medius muscle may assist to flex and extend the hip and to internally and rotate the hip. The isolated primary function is abduction of the hip. The gluteus medius also helps stabilise the pelvis in the coronal plane. During gait the gluteus medius supports and helps to stabilise the hip in the stance phase. The first end and/or the second end of the secondary elastic part may face the anterior part of the core part of the body, where a central part of the secondary elastic part hugs a posterior part of the core, while the first and/or the second end extend towards the anterior part of the core part. The first and/or the second end may each superimpose a part of the gluteus medius muscle on one or both sides of the body.

[0024] In one exemplary embodiment, the secondary elastic part may be configured to superimpose a lateral part of the gluteus medius, and optionally at least more than 50% of the circumference and/or the length of the of the gluteus medius. The circumference of the gluteus medius may be understood as the length of the gluteus medius along in a direction from the posterior periphery of the gluteus medius to the anterior periphery of the gluteus medius. The ends of the secondary elastic part may extend from a central part of the secondary elastic part, which is positioned on a posterior side of the body, and where the gluteus medius is superimposed from the anterior side, and the first end and/or the second end are positioned on an anterior part of the gluteus medius. Thus, the pressure of the secondary elastic part may stimulate the nerve endings of the gluteus medius, or those parts of the nervous system that extend into the gluteus medius.

[0025] In one exemplary embodiment, the primary elastic part and the secondary elastic part may extend 360 degrees around the core part of the body. The primary elastic part and the secondary elastic part may be connected together, so that the connected parts extend the entire way around a core part of a human body. This may mean that the first end of the primary elastic part may be connected to the first end or the second end of the secondary elastic part while the second end of the primary elastic part may be connected to the second end or the first end of the secondary elastic part. Thus, the primary elastic part may be partially used to maintain a counterforce to the secondary elastic part, in a radial direction (from a central axis of the body) inwards. Thus, the primary elastic part may assist in holding the secondary elastic part in its correct position on the body, ensuring that the secondary elastic part covers the parts of the gluteus medius and/or gluteus maximus that allows the superimposing of the elastic part on the muscles.

[0026] In one exemplary embodiment, the first end and/or the second end of the secondary elastic part and/or the first end and/or the second end of the primary elastic part may terminate at a lateral part of the hip. This may mean that the first end and/or the second end of the secondary elastic part may terminate at a side of the body, so that the secondary elastic part at least partly covers the gluteus medius on one or both sides of the body. This may mean that the first end and/or the second end of the primary elastic part may terminate at a side of the body, so that the primary elastic part at least partly covers the gluteus medius on one or both sides of the body. Thus, the secondary elastic part may extend along the posterior side of the body, and where the ends of the secondary elastic part may extend to a lateral part of the body (to the sides of the body) to cover at least a posterior part of the gluteus medius. Effectively, this may mean that both the primary elastic part and the secondary elastic part may cover at least part of the surface area of the gluteus medius muscle, where it may be understood that the secondary elastic part may cover a larger surface area of the gluteus medius muscle than the primary elastic part covers,

[0027] In one exemplary embodiment, the first end and/or the second end of the secondary elastic part may terminate at an anterior part of the core part of the body. This may mean that the first and/or the second end may extend beyond the coronal plane in a direction from the posterior to the anterior, and where the first and/or the second ends extend in a medial direction on the anterior part of the body. This may mean that the secondary elastic part covers a larger circumferential part of the body

than e.g. the primary elastic part.

[0028] In one exemplary embodiment, the first end and/or the second end of the secondary elastic part may terminate at an anterior part of the gluteus medius. Thus, the secondary elastic part may cover a large part of the gluteus medius during use. This means that both the posterior part, the central part and an anterior part of the gluteus medius may be superimposed by the secondary elastic part. A posterior part of the gluteus medius may be superimposed by the gluteus maximus, which means that the in that area the pressure applied by the secondary elastic part may be absorbed mainly by the gluteus maximus. However, by ensuring that the secondary elastic part covers the lateral part and/or the anterior part of the gluteus medius, it is ensured that the pressure is not absorbed by other muscular parts of the body, and the secondary elastic part superimposes the gluteus medius directly through the cutaneous layers. The difference in pressure applied by the primary and secondary elastic part may mean that the pressure from the secondary elastic part will be felt more by the user, due to the higher elastic force in the secondary elastic part. The user will feel a presence of a pressure difference and it has been shown that the user has an increased feeling in the area of the secondary elastic part, hence causing increased awareness and a stimulation of muscle activity.

[0029] In one exemplary embodiment, an anterior part of the secondary elastic part may be configured to superimpose the superior part of the os sacrum and/or os ilium bones. The gluteus medius and/or the gluteus maximus attaches to the os sacrum and/or the os ilium bones, where the superior part of the muscles extends in an inferior (distal) direction away from the bones. By having the secondary elastic part superimpose the os sacrum and/or the os ilium bones, the secondary elastic part will superimpose the superior parts of the muscles as well, and where the superimposing of the muscles allows the sensory stimulation of the muscles during the use of the garment.

[0030] In one exemplary embodiment, the first end and/or the second end of the secondary elastic part terminate(s) prior to the SIAS (superior anterior iliac spine) bone of the hip in a medial direction towards the saggital plane. The SIAS bone of the hip is a bone that may protrude and be visible on the surface of the skin, and by having the first and/or the second end of the secondary elastic part terminate prior to the SIAS bone, the garment may be more comfortable. If the secondary elastic part superimposes the SIAS, the pressure applied by the secondary elastic part may cause discomfort in the region between the secondary elastic part and the SIAS.

[0031] In one exemplary embodiment, the second elastic part may be an elastic band. The secondary elastic part may be an elastic band that extends along the circumference of the body in a posterior part, where the ends of the elastic band may be attached to another part of the garment, creating a counterforce for the elastic band. Thus, the elastic band may be at resting at a first length while during use the elastic band may be at a second length, where the second length is longer than the first length, and the difference in length creates an elastic force which may push onto the anatomical points that are covered by the secondary elastic part.

[0032] In one exemplary embodiment, the secondary elastic part may have a height from the anterior periphery to the inferior periphery of between 8-12cm. The height of the secondary elastic part may ensure that the inferior periphery extends long enough in an inferior direction to cover the gluteus maximus and/or the gluteus medius. The height of the secondary elastic part may ensure the anterior periphery comes into contact with the upper part of the hip, while the secondary part extends in a direction downward towards the inferior periphery. Thus, the secondary elastic part may be configured to cover a portion that is between 8 and 12cm from the upper part of the hip and in an inferior direction, to superimpose at least the superior parts the gluteus maximus and/or the gluteus medius. In one example, the height from the anterior periphery to the inferior periphery is around 10cm.

[0033] In one exemplary embodiment, the secondary elastic part may cover a larger portion of the circumference of the of the core body than the primary elastic part. Thus, if the circumference of the body is e.g. 90cm, the primary elastic part may cover about 40cm while the secondary elastic part may cover about 50cm. Thus, the secondary elastic part may extend from the posterior part of the coronal plane of the body and beyond the coronal plane into the anterior part. In one example, for a garment having a medium size, having a relaxed circumference of 70cm, the secondary elastic part may have a length of around 41cm, while the primary elastic part may have a size of 29cm, where the majority of the secondary elastic part is positioned on the posterior part of the garment (back of the garment), while the majority of the primary elastic part is positioned on the anterior part of the garment (front of the garment).

BRIEF DESCRIPTION OF THE DRAWINGS

[0034] The following is an explanation of exemplary embodiments with reference to the drawings, in which:

Fig. 1 shows a performance garment seen from the posterior side,

Fig. 2 shows an anatomical view of the gluteus muscles and the skeleton from the posterior side,

Fig. 3a and 3b show an anatomical view of a human of the from the posterior side,

Fig. 4 shows a performance garment seen from the lateral side, and

Fig. 5 shows an anatomical view from the lateral side.

DETAILED DESCRIPTION

[0035] Fig. 1 shows a performance garment 2 seen from the posterior side, where the performance garment 2 is in the form of tights 4, having a main body 6, where a first leg 8 and a second leg 10, extend from the main body and in a direction towards the knees 12 of the human body. The tights 4 may be of an elastic material, allowing the tights to hug and/or follow the contours of the human body and sit closely to the skin of the body.

[0036] The tights 4 are provided with a secondary elastic part 14 having a superior periphery 16 and an inferior periphery 18, where the secondary elastic part 14 extends in a lateral direction X in a direction away from the sagittal plane A (or central axis A) of the human body. The secondary elastic part 14 has a height H which extends from the superior periphery 16 to the inferior periphery 18. The superior periphery 16 may define a superior boundary of the posterior part of the tights 4, and where the secondary elastic part 14 extends in an inferior direction towards its inferior periphery 18. The inferior periphery 18 may be attached to a superior periphery 20 of the main body 6 of the garment 2 so that the tights 4 appear and function as a uniform garment from the upper boundary 16 towards the lower boundary 22.

[0037] The secondary elastic part 14 has a higher elastic force than the main body 6 of the garment 2, so that the area of the human body which is covered by the secondary elastic part 14 receives higher pressure than the parts that are covered by the main body 6, legs 8, 10 or the remaining parts of the garment 2. The superior periphery 16 of the secondary elastic part 14 is arranged to abut the waist 24 of the human body, while the inferior periphery is adapted to extend downwards in an inferior direction to superimpose the superior parts of the gluteus maximus and/or the gluteus medius. Thus, the central part 26 of the secondary elastic part superimposes areas of the body which correspond to the superior parts of the gluteus maximus and/or the gluteus medius.

[0038] Fig. 2 shows an anatomical schematic view of the positioning of the secondary elastic part 14 seen from the posterior side, where the secondary elastic part 14 has a superior boundary 16 and an inferior boundary 18, and where it may be seen that the central part 26 of the secondary elastic part 14 superimposes the hip 28 from at least the iliac crest 30, as well as the superior part 32 of the gluteus maximus 34 as well as a superior part 36 of the gluteus medius 38. The area of the body which is covered by the secondary elastic part 14 allows the secondary elastic part 14 to apply a force in a radial direction (towards the central axis A onto the cutaneous layers of the core of the body, and this force is translated and/or transferred into the gluteus medius 38 and/or gluteus maximus 34 muscles, or at least parts of those muscles.

[0039] The secondary elastic part 14 may apply a force to a lateral part 40 of the gluteus maximus 34 where it overlaps the gluteus medius 38, so that the force applied by the secondary elastic part 14 may superimpose both muscles in the same area. However, as the muscles 34, 38 only overlap in a small area, the secondary elastic part may apply force directly to the superior part of the muscles via the cutaneous layers or the layers of body that lay between the skin surface and the outer surface of the muscles 34, 38. The positioning of the secondary elastic part 14 on the core of the human body may be maintained during activity by the main body of the garment 2, or tights 4, where the main body is attached to the secondary elastic part 14 and thereby ensuring that the secondary elastic part does not travel in a superior direction of the core, but may be held in position by the posterior part of the main body 6 and/or the leg parts 8, 10 of the tights.

[0040] Fig. 3a shows in a schematic view the area where the secondary elastic part 14 overlaps the superior part 32 of the gluteus maximus 34. The superimposing ensures that a force is applied to the outer surface of the superior part 32 of the gluteus maximus, where this force causes a sensory stimulation of the muscle 34 so that the central nervous system may register the presence of the muscle or may be triggered to register the presence of the muscle, and is thereby more capable of activating the muscle during hip movement. This may cause the hip movement to be more stable during activity, such as squatting or other types of hip movement, and thereby assisting in stabilising the movement of the lower extremity and/or the femur during activity.

[0041] Fig. 3b shows in a schematic view the area where the secondary elastic part 14 overlaps the superior part 36 of the gluteus medius 38. The superimposing ensures that a force is applied to the outer surface of the superior part 36 of the gluteus medius, where this force causes a sensory stimulation of the muscle 38 so that the central nervous system may register the presence of the muscle, and is thereby more capable of activating the muscle during hip movement. This may cause the hip movement to be more stable during activity, such as squatting or other types of hip movement, and thereby assisting in stabilising the movement of the lower extremity and/or the femur during activity.

[0042] Fig. 4 shows a performance garment 2, as seen in Fig. 1, seen from the lateral side. The main body 6 of the garment 2 extends to an anterior side of the body, both around the legs 8, 10 as well as in the groin 42 region of the body, as well as the core part 44 of the body. The secondary elastic part 14 extends to the lateral part 46 of the body, where the secondary elastic part 14 terminates at a first end 48 of the secondary elastic part 14. In accordance with the present disclosure, the secondary elastic part 14 may have a second end (not shown) on the opposing lateral side of the body. The first end 48 is attached to a front part 50 of the tights 4, where the front part 50 extends across the abdomen area 52 and/or the groin area 42 of the body to be connected to the opposing second end (not shown) of the secondary elastic part 14. The front part 50 may be understood as a counterforce to the secondary elastic part 14, allowing the secondary

elastic part to extend and provide a force to the posterior side 54 and the lateral side 46 of the body. The front part 52 may be seen as the primary elastic part.

[0043] The front part 52 may be a separate part of the tights 4, which is sewn to a back part 56 of the tights along a seam 60, which extends down towards the knees 12 of the body. The secondary elastic part 14 may be attached to the front part 52 and/or the back part 56, and where the first end 48 of the secondary elastic part 14 extends along the same axis as the seam line 60. The front part may be elastic, but may have a lower degree of extension than the secondary elastic part 14, so that the elastic force is applied in a radial direction inwards (towards the central axis of the body) via the secondary elastic part causing sensory the stimulation of the gluteus medius and the gluteus maximus.

[0044] The first end 48 may extend to a lateral part 46 of the body, allowing the secondary elastic part 14 to superimpose a lateral side 62 of the gluteus medius 38, as seen e.g. in Fig. 5. The force applied by the secondary elastic part may cause a sensory stimulation of the muscle 38 so that the central nervous system may register the presence of the muscle and is thereby more capable of activating the muscle during hip movement. This may cause the hip movement to be more stable during activity, such as squatting or other types of hip movement, thereby assisting in stabilising the movement of the lower extremity and/or the femur during activity.

[0045] The first end 48 may extend in an anterior direction to terminate just prior to the SIAS bone 64 of the hip, thereby improving comfort of the garment 2.

[0046] The garment 2 may further comprise a pocket 66 having an upper opening 68 (as seen in Fig. 1) and where the front part 70 (or alternatively a back part) of the pocket 66 may be sewn together with the seam line, to utilise the sewing of the seam 60 with the creation of a pocket.

[0047] Various exemplary embodiments and details are described hereinafter, with reference to the figures when relevant. It should be noted that the figures may or may not be drawn to scale and that elements of similar structures or functions are represented by like reference numerals throughout the figures. It should also be noted that the figures are only intended to facilitate the description of the embodiments. They are not intended as an exhaustive description of the disclosure or as a limitation on the scope of the disclosure. In addition, an illustrated embodiment needs not have all the aspects or advantages shown. An aspect or an advantage described in conjunction with a particular embodiment is not necessarily limited to that embodiment and can be practiced in any other embodiments even if not so illustrated, or if not so explicitly described.

The use of the terms "first", "second", "third" and "fourth", "primary", "secondary", "tertiary" etc. does not imply any particular order, but are included to identify individual elements. Moreover, the use of the terms "first", "second", "third" and "fourth", "primary", "secondary", "tertiary" etc. does not denote any order or importance, but rather the terms "first", "second", "third" and "fourth", "primary", "secondary", "tertiary" etc. are used to distinguish one element from another. Note that the words "first", "second", "third" and "fourth", "primary", "secondary", "tertiary" etc. are used here and elsewhere for labelling purposes only and are not intended to denote any specific spatial or temporal ordering.

[0048] Furthermore, the labelling of a first element does not imply the presence of a second element and vice versa.

[0049] It is to be noted that the word "comprising" does not necessarily exclude the presence of other elements or steps than those listed.

[0050] It is to be noted that the words "a" or "an" preceding an element do not exclude the presence of a plurality of such elements.

[0051] It should further be noted that any reference signs do not limit the scope of the claims. Although features have been shown and described, it will be understood that they are not intended to limit the claimed invention, and it will be made obvious to those skilled in the art that various changes and modifications may be made without departing from the spirit and scope of the claimed invention. The specification and drawings are, accordingly, to be regarded in an illustrative rather than restrictive sense. The claimed invention is intended to cover all alternatives, modifications, and equivalents.

List of references

[0052]

2	Garment
4	Tights
6	Main body
8	First leg
10	Second leg
12	Knee
14	Secondary elastic part
16	Superior periphery
18	Inferior periphery
20	Superior periphery of Main body
22	Lower boundary
24	Waist
26	Central part of secondary elastic part
28	Hip
30	Iliac crest
32	Superior part of Gluteus maximus
34	Gluteus maximus
36	Superior part of Gluteus medius
38	Gluteus medius
40	Lateral part of Gluteus maximus
42	Groin region of the body
44	Core part of the body
46	Lateral part of the body
48	First end of secondary elastic part
50	Front part of the tights

52 Abdomen area of the body
54 Posterior side
56 Back part of tights
60 Seam
62 Lateral side of Gluteus medius
64 SIAS bone of hip
66 Pocket
68 Upper opening
70 Front part

Claims

1. A performance enhancing garment configured to extend around a core part of the human body, the garment comprising

- a primary elastic part having a first end and a second end, where the primary elastic part is configured to cover at least a part of an anterior part of the core part,
- a secondary elastic part having a first end, a second end, a superior periphery and an inferior periphery, the secondary elastic part configured to cover at least part of an posterior part of the core part of the body, wherein the secondary elastic part is configured to superimpose at least a superior part of the gluteus medius and/or the gluteus maximus,

where the secondary elastic part has a higher tension force and/or a higher elastic force than the primary elastic part.

2. A performance enhancing garment in accordance with claim 1, where the performance enhancing garment is an outer garment extending from the waist and covering at least part of each leg separately.

3. A performance enhancing garment in accordance with any of the preceding claims, wherein the inferior periphery of the secondary elastic part is configured to terminate above approximately 50% of the length of the gluteus maximus in a direction extending from superior to inferior.

4. A performance enhancing garment in accordance with any of the preceding claims, wherein the first end and/or the second end of the secondary elastic part is configured to superimpose at least an anterior part of the gluteus medius.

5. A performance enhancing garment in accordance with any of the preceding claims, wherein the second elastic part is configured to superimpose a lateral part of the gluteus medius, and optionally at least more than 50% of the circumference of the gluteus medius.

6. A performance enhancing garment in accordance with any of the preceding claims, wherein the primary elastic part and the secondary elastic part extend 360 degrees around the core part of the body.

7. A performance enhancing garment in accordance with any of the preceding claims, wherein the first end and/or the second end of the secondary elastic part and/or the first end and/or the second end of the primary elastic part terminate(s) at a lateral part of the hip bone.

8. A performance enhancing garment in accordance with any of the preceding claims, wherein the first end and/or the second end of the secondary elastic part terminate at an anterior part of the core part of the body.

9. A performance enhancing garment in accordance with any of the preceding claims, wherein the first end and/or the second end of the secondary elastic part terminate at an anterior part of the gluteus medius.

10. A performance enhancing garment in accordance with any of the preceding claims, wherein the anterior part of the secondary elastic part is configured to superimpose the superior part of the os sacrum and/or os ilium bones.

11. A performance enhancing garment in accordance with any of the preceding claims, wherein the first end and/or the second end of the secondary elastic part terminate prior to the SIAS bone of the hip, in a medial direction towards the saggital plane.

12. A performance enhancing garment in accordance with any of the preceding claims, wherein the second elastic part is an elastic band.

13. A performance enhancing garment in accordance with any of the preceding claims, wherein the second elastic part has a height from the anterior periphery to the inferior periphery of between 8-12cm.

14. A performance enhancing garment in accordance with any of the preceding claims, wherein the second elastic part covers a larger portion of the circumference of the of the core body than the primary elastic part.

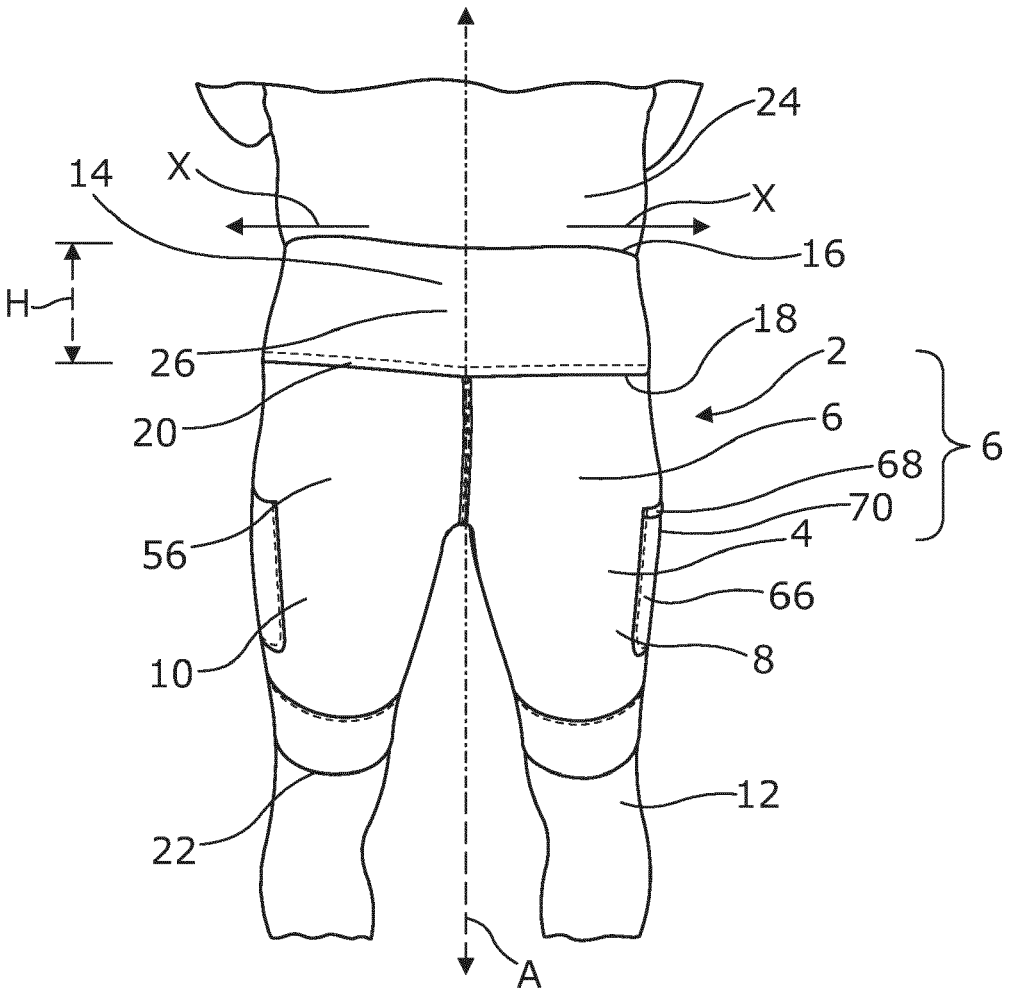

Fig. 1

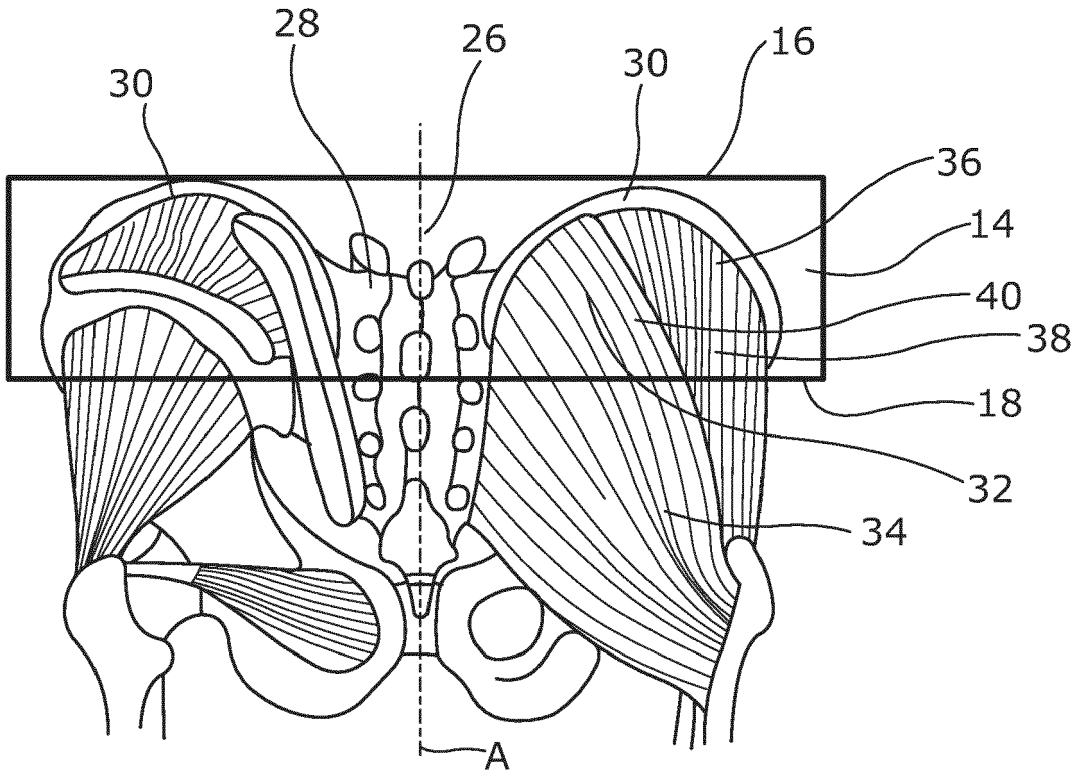

Fig. 2

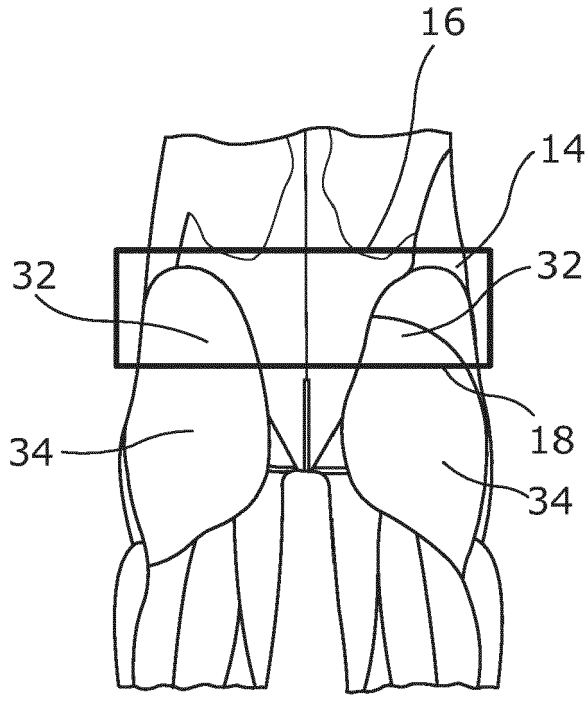

Fig. 3a

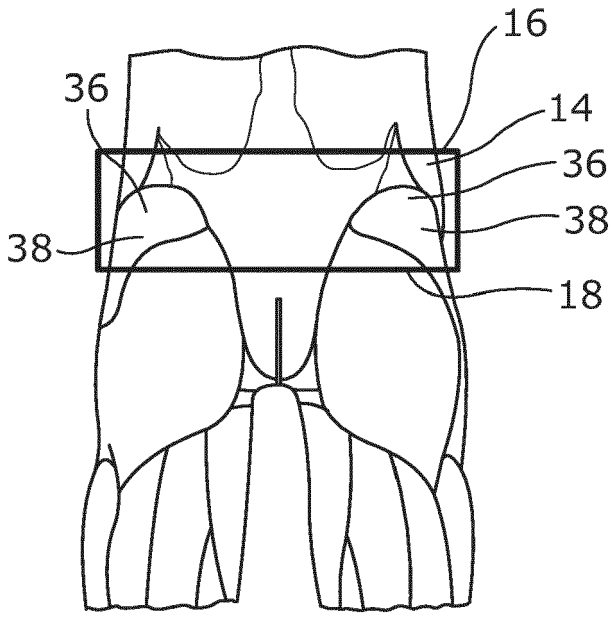

Fig. 3b

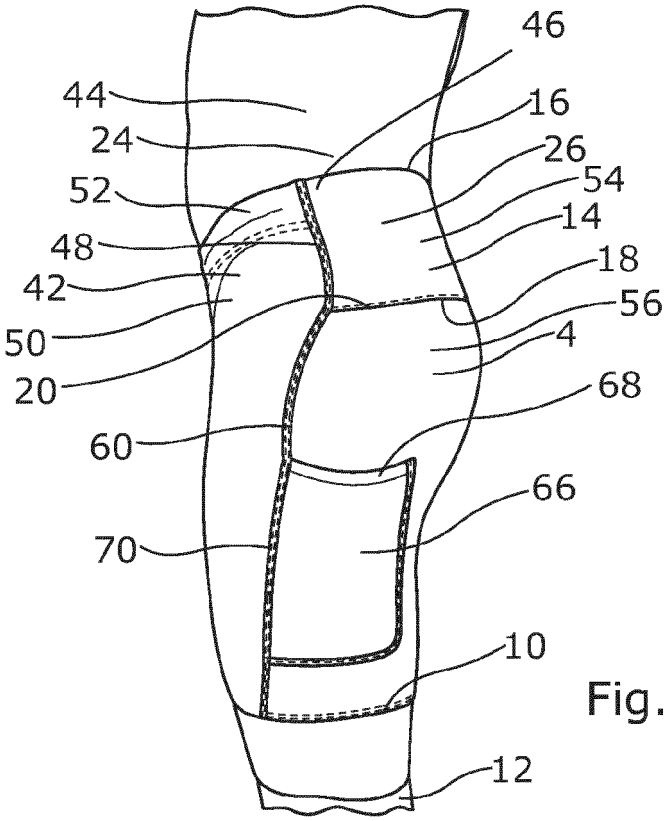
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Fig. 4

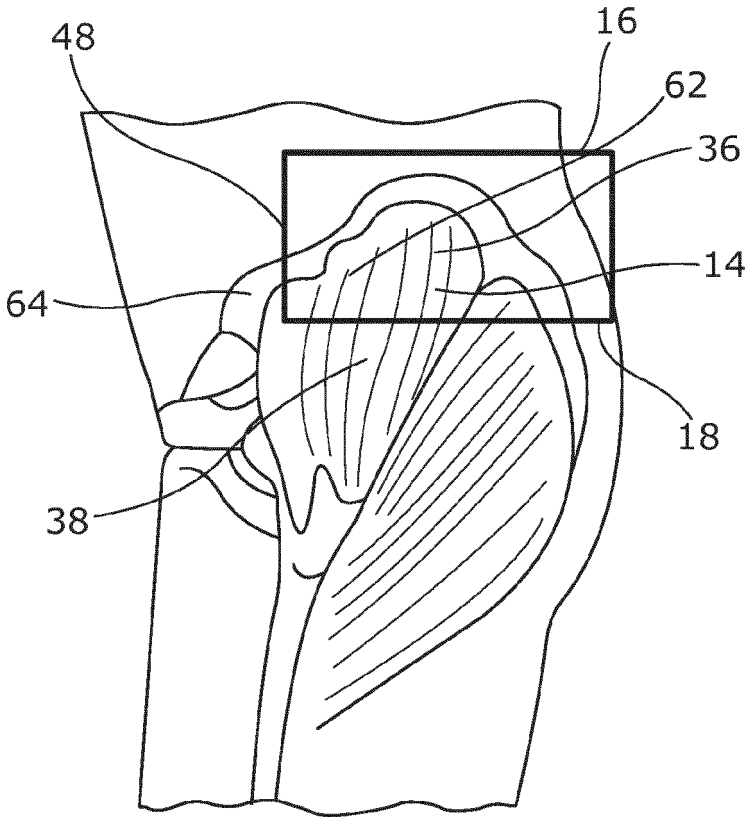
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Fig. 5

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EUROPEAN SEARCH REPORT

Application Number
EP 20 19 9052

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Place of search	Date of completion of the search	Examiner
The Hague	15 March 2021	da Silva, José

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