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(54) **COMFORT SLEEPER**

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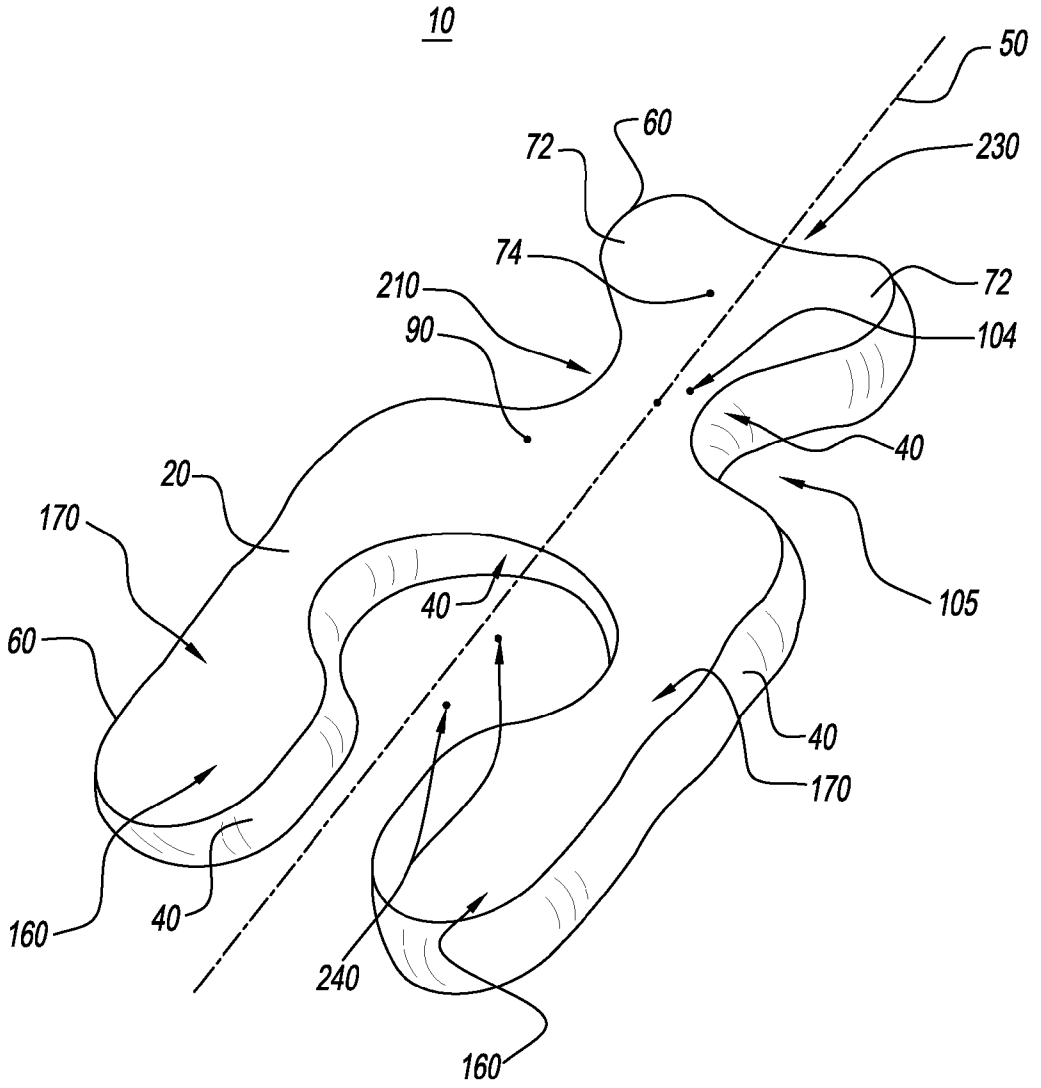
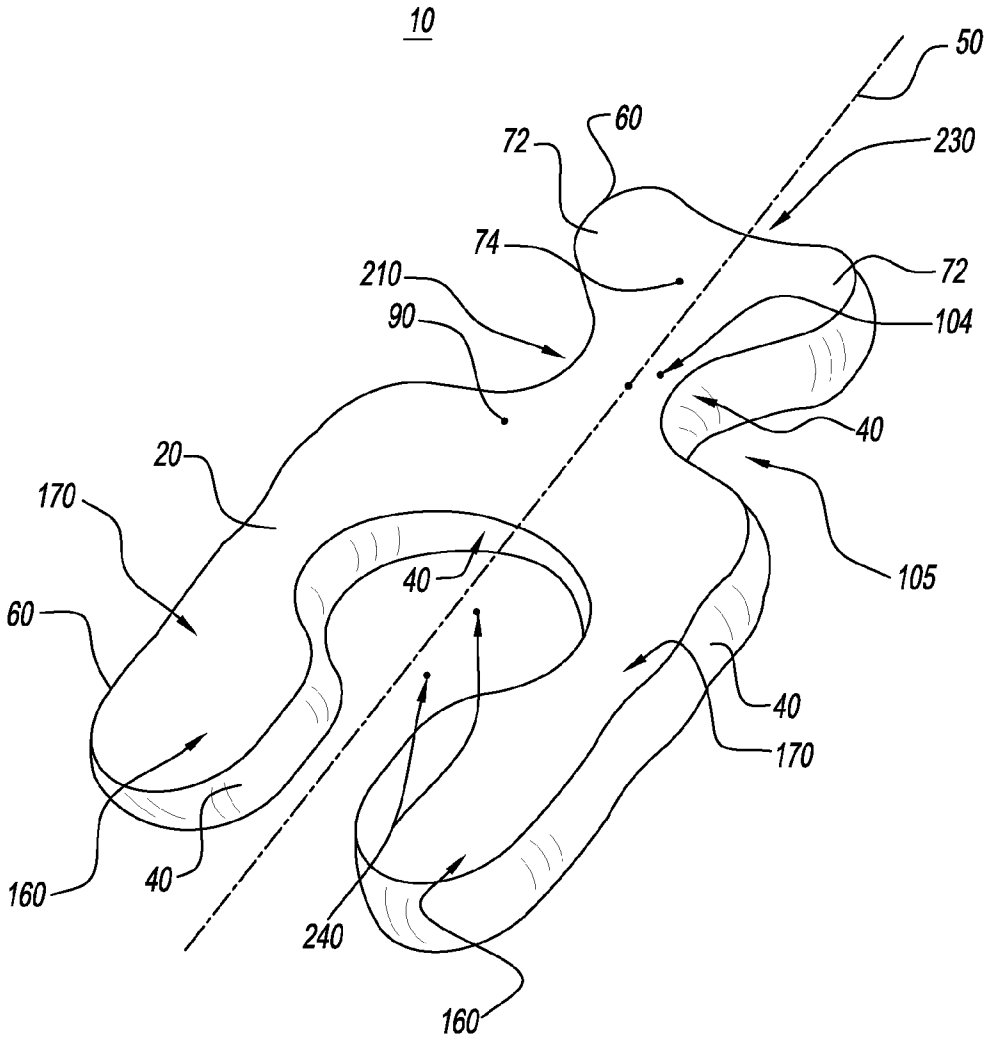
(57) **ABSTRACT**

An upper body support device with a top surface, a bottom surface, a sidewall, a central axis, and an outer edge. The support device further contains a first support area, a second support area, and twin third support areas. The second support area includes a cross element. A bridge area links the first support area and the second support area along the central axis. A width of the first support area and a width of the second support area are substantially greater than the width of the bridge area. There are two extensions emanating from the cross element, leading to a third support area, to lift the lower torso at the anterior superior iliac spine protrusions.




10
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60
72
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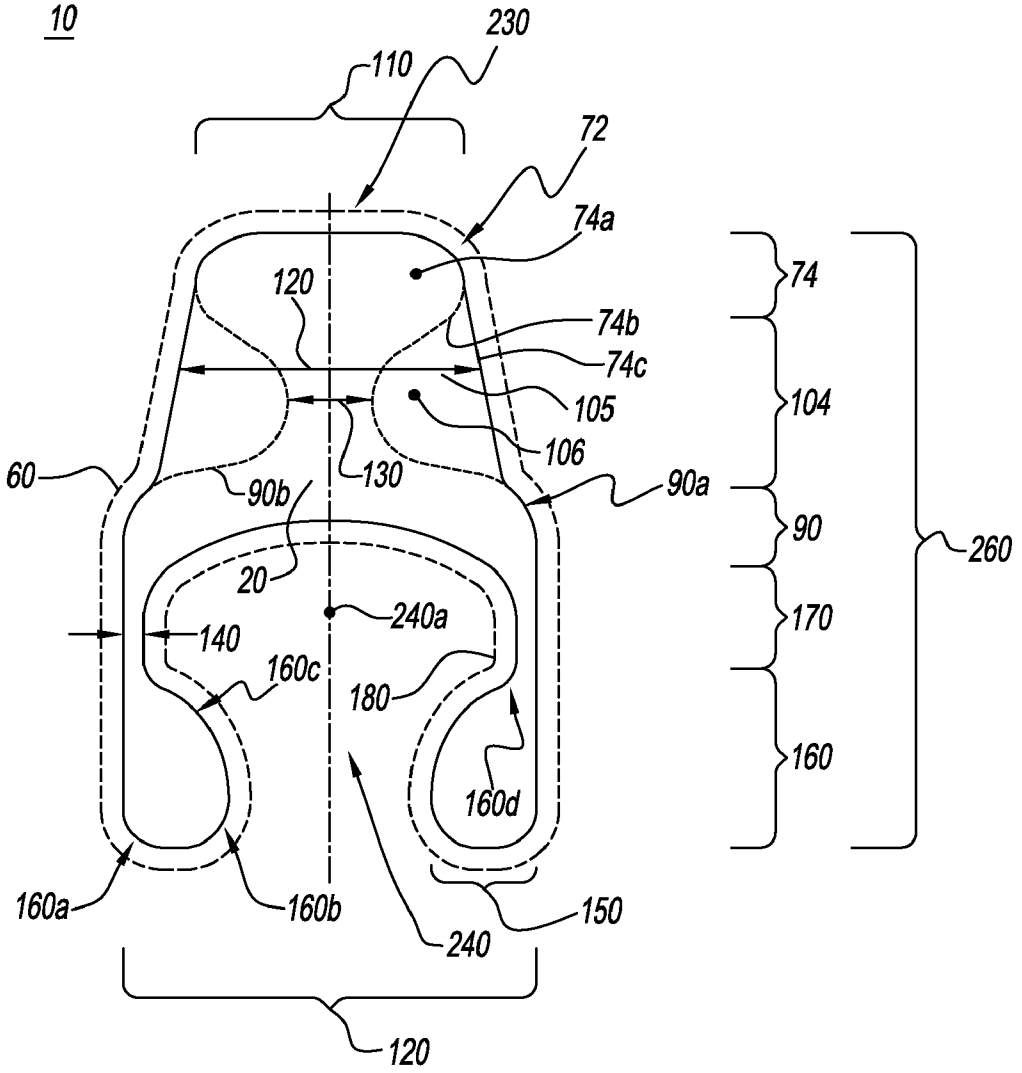
240
160

FIG. 1


10
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72
74a
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60
130
90a
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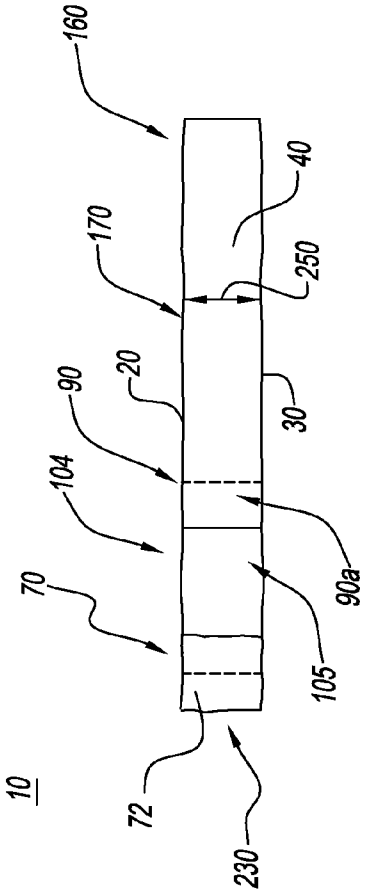
240a
170
140
160c
180
160
160d
160a
160b
150
240
120

FIG. 2


160
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170
250
20
30
90
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70
90a
105
10
72
230

FIG. 3

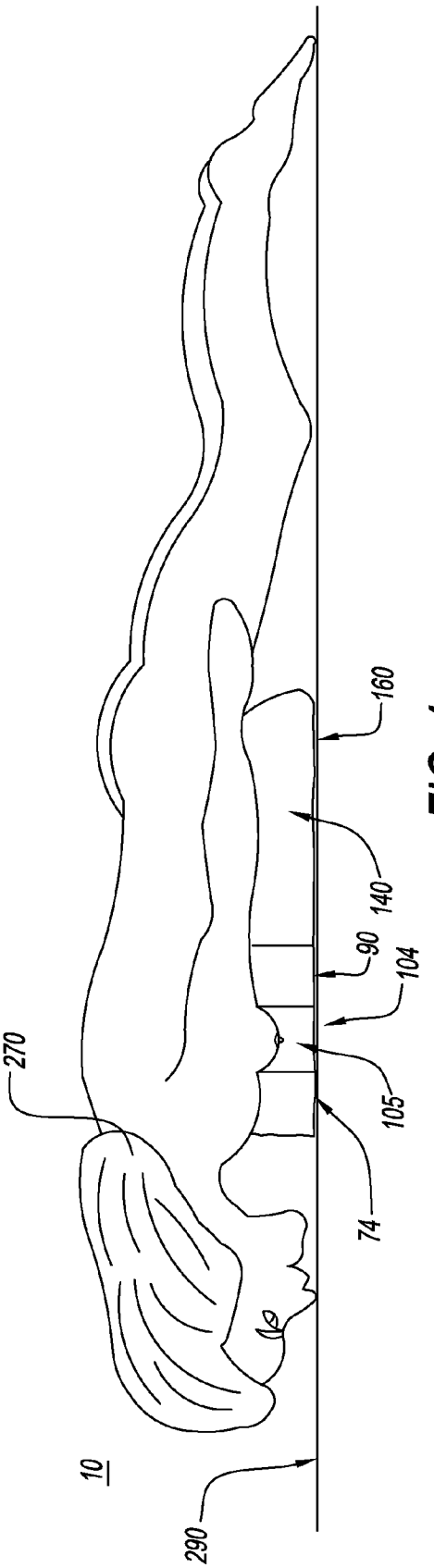
160
140
90
104
270
105
74
10
290

FIG. 4

COMFORT SLEEPER

CLAIM OF PRIORITY

[0001] This application claims priority to U.S. Ser. No. 61/330,476 filed May 3, 2010, the contents of which are fully incorporated herein by reference.

FIELD OF THE INVENTION

[0002] The invention relates to an accessory for improving sleep quality and comfort.

BACKGROUND OF THE INVENTION

[0003] This invention proposes a body positioning system that would allow most people to lay down safely and comfortably for several hours, with the front of their trunk and head in a face down position that supports spinal wellness, and reduces the tendency to snore. This is achieved by using uniquely sculpted compliant material to suspend the fully overturned body without pain or spinal distress. The device is used with or without unique cranial pillows that allow the user to comfortably point their face directly forward, or support the head when it is mildly tilted from forward.

[0004] Supine, lateral and prone positions all have advantages and disadvantages in improving the quality of one's sleep. In general, supine and lateral positions are the only choices available with standard beds and mattresses. A prone position offers an alternative to a supine and lateral position, especially if a pressure relief on back and shoulders is desired. However, a prone position is usually uncomfortable to most people since it results in the craning of one's neck, excessive arching of the lower back, and discomfort at the breast and genital areas. Special mattresses and other devices have been available in past but these are usually very costly or unsuitable for home use.

[0005] The present invention is designed to make a prone sleeping position comfortable alternative by elevating the prone trunk sufficiently to relieve lower back and neck stresses. This spongy device lifts the sleeper up and provides cutouts at just the right spots, allowing hygienic rest in which the usual points of morning pain are relieved, breathing is made easy, and gravity is manipulated to keep key snoring contributors out of the airway. It is simple in concept, and comfortable.

DESCRIPTION OF THE RELATED ART

[0006] U.S. Pat. No. 7,536,735 discloses a system configured to ensure a sleeping person remains in a desired position. The system includes a head pillow and a leg pillow. The head pillow includes a locating area configured to receive a portion of the head of the sleeping person. In addition, the head pillow includes a receiving area configured to receive a portion of an arm of the sleeping person. The leg pillow includes a receiving area configured to receive a portion of the leg of a sleeping person. The leg pillow is generally located between the legs of the person and maintains the legs in a substantially parallel and spaced relationship.

[0007] U.S. Pat. No. 6,185,768 discloses A cushion support to be placed on a bed or other horizontal support surface which allows a woman to lie or sleep in a face-down position without exerting pressure on the breasts. The cushion support includes an elongated block of foam material, the front section of which is horizontally oriented and supports the upper rib cage and the sternum of the user, and a wedge-shaped lower section which supports the torso of the user. Vertically oriented arcuate recesses are provided to accommodate the breasts. When lying in a face-down position, the breasts of the user depend downwardly into the recesses without contacting the underlying support surface or the cushion support. The device is particularly designed to be used after surgical procedures to the breasts, such as breast implantations or breast reductions. A second preferred embodiment includes a substantially wedge-shaped elongate portion of foam rubber material having a planar lower face to be placed on a horizontal surface, a vertically oriented front face, two vertically oriented side faces, and a planar top face inclined at an angle of approximately 45 degree. Contoured recesses are provided in the front face to support the breasts.

[0008] Various implements are known in the art, but fail to address all of the problems solved by the invention described herein. One embodiment of this invention is illustrated in the accompanying drawings and will be described in more detail herein below.

SUMMARY OF THE INVENTION

[0009] Disclosed is a body support device with a top surface, a bottom surface, a sidewall, and cutouts. The support device further contains a first support area and a second support area. The second support area includes a cross element. A bridge area links the first support area and the second support area along the central axis. The width of the first support area and the width of the second support area are substantially greater than the width of the bridge area. The first support area lifts one's chest, while the second support area, including the extensions, provides support for the rest of the torso.

[0010] Therefore, the present invention succeeds in conferring the following, and others not mentioned, desirable and useful benefits and objectives.

[0011] It is an object of the present invention to provide a sleeping device that is functional for prone sleeping.

[0012] It is another object of the present invention to provide a sleeping aid that is ergonomically contoured to support a person's body without spinal stress in a substantially face-down position.

[0013] Yet another object of the present invention is to provide a sleeping aid that offloads the usual sleep surfaces, which may assist a natural healing process involving these areas.

[0014] Still another object of the present invention is to provide a cushion that is made from the best available hypoallergenic foam, and sturdy, comfortable fabrics.

[0015] Still another object of the present invention is to provide a device that is a decorative and fanciful conversation piece.

[0016] Yet another object of the present invention is to provide a sleeping aid that is smaller and lighter than most pillows.

[0017] Still another object of the present invention is to provide a pillow that easily fits in bed, stores and travels well, and can be used as an alternative pillow for other sleeping positions.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] FIG. **1** is a perspective view of the preferred invention.

[0019] FIG. **2** shows a top view of the preferred embodiment.

[0020] FIG. **3** shows a side view of the preferred embodiment.

[0021] FIG. **4** is a side view of the preferred invention, showing a person utilizing the disclosed pillow.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0022] The preferred embodiments of the present invention will now be described with reference to the drawings. Identical elements in the various figures are identified with the same reference numerals.

[0023] Reference will now be made in detail to embodiments of the present invention. Such embodiments are provided by way of explanation of the present invention, which is not intended to be limited thereto. In fact, those of ordinary skill in the art may appreciate upon reading the present specification and viewing the present drawings that various modifications and variations can be made thereto.

[0024] FIG. **1** is a perspective top view of the present invention. Shown is an upper body support device **10**, a top support surface **20**, a convex sidewall **40**, a central axis **50**, an upper, outer edge **60**, a lower outer edge **62**, a substantially symmetrical, upper chest support **70** (shown in FIG. **3**), a substantially symmetric, lower rib support **80**, a cross element **90**, a bridge area **100**, side cutouts **105**, extensions **140**, distal ends **150**, two hip support extensions **160**, a narrow area **170**, an inner edge **180**, an inner side of the extensions **190**, a rear facet of the cross element **200**, a tapered edge **210**, a frontal portion **230**, and a lower recessed area **240**.

[0025] The device **10** may be made from soft, spongy material suitable for sleeping, such as, but not limited to foam, gel, synthetic fills, feathers, or down. Other filler varieties may include organic or granular particles or plastic imitations. A foam filler may be made from polyvinyl chloride, polyurethane, polyethylene, or another polymeric variety material. The gel filler may be made from a thermoplastic elastomer, of a different elastic material. The device may be inflatable or filled with water or other fluid. Any combination of the above named materials may also be suitable, or different portions of the invention may be made from different materials.

[0026] The bottom surface is not shown, but is identical to the top surface **20**. The top and bottom surfaces **20**, and the sidewall **40** form a shell around the filler. The sidewall **40** may have a puffy or circular appearance. This may be done to create tapered edge **210** that provides increased comfort. The tapered edge **210** may be present along the side cutout **105**, along the oval of the lower recessed area **240**. The terms tapered edge or beveled edge may be used interchangeably. The shell may contain a re-sealable slit or an opening to access the filler. The shell may be made out of hypoallergenic materials, since some types of fillers may cause allergic reactions. Other materials may include, but are not limited to natural and synthetic cloth or silk. A pillow case or a pillow slip may be included, which may be made from the same or different materials as the shell. The pillow case, if included, may preferably be shaped in form of a support device **10**. In another alternative, the filler may include cavities that can be inflatable or fillable with liquids, such as water. There may be several independent or proportionally related fillable sacks or chambers. The filler would then be introduced from the outside through a valve. There may be valves for each independent sack or chamber or there may be at least one common valve for proportionally related chambers. Proportionally related chambers may be controllably filled to a level that would preserve the general proportions of the device **10**. This way, comfort in one area of the device **10** may be improved without skewing the anatomic proportionalities of other areas.

[0027] The upper chest support **70** is intended to support a person's upper chest. The corners **72** extend to the point of allowing free movement of the person's shoulders, while the middle area **74** provides support for the clavicle, manubrium and upper Sternum bones as well as for upper chest muscles. The middle area **74** may also be recessed in comparison to the corners **72**. The recess here may be desirable to accommodate a greater curvature of the aforementioned skeletal and muscular areas.

[0028] The bridge or sternum bone support region **100** is intended to provide support for the Sternum bone and for the Pectoralis major muscle formation. The bridge area **100** may also be somewhat recessed in the middle **102**, or may filled with softer materials than surrounding areas **104**. The middle area **102** may be convex in shape, with lowest point of the arch converging within the middle area **102**. The convex shape or softer area **102** may be desirable to accommodate rib cage expansions and contractions during breathing. Alternatively the middle area **102** may be raised with respect to the surrounding area **104** and form a ridge-like area to firmly support the muscle tendons terminating in or about the Sternum.

[0029] The present invention may be used in combination with a conventional head pillow to support the head, or a specialized forehead pillow that may extend to the sides of the face. Alternatively, a support for the upper jaw bone may also be provided. In another alternative, the frontal portion **230** may contain a recess. This recess may be utilized to accommodate a person's neck and head.

[0030] The sternum bone support region **100** may be oriented along the central axis **50** and may be substantially narrower than the upper chest support **70** (also referred to as the first support area) or the lower rib support region **80** (also referred to as the second support area). The bridge area **100** is oriented along the central axis **50**. This setup creates a pair of side cutouts **105**. The side cutouts provide space for breasts. During prone sleeping, chest and breast would bear most of the torso weight, causing pain and discomfort. However, the layout of the present invention eliminates this by having breast cutouts **105**.

[0031] The substantially symmetric, lower rib support **80** is intended to support the lower ribs. A main component of the lower rib support region **80**, or second support area, is the cross element **90**. The cross element **90** may be triangular, trapezoidal, or arching. These shapes provide the outmost support for the intended areas, without encroaching on the side cutouts **105** and the lower recessed area **240**. It is preferable that the lower rib support region **80** may be wider than the upper chest support **70**, since no allowance is needed to allow shoulder movement, as in the upper chest support **70**.

[0032] There are two hip support extensions **160** emanating from the rear facet **200** of the cross element **90**. The hip support extensions **160** may be integral with the overall support device **10**. The hip support extensions **160** may be formed at the distal ends **150** of the cross element **90** of the lower rib support region **80**. The extensions may be opposite each other and may run substantially substantially parallel with the central axis **50**. However, the legs may also be emanating at a slight angle, creating an outwardly spreading, or inwardly contracting terminuses **165**.

[0033] The narrow areas **170** combine with the arching rear facet **200** to create an oval abdominal recess region **240** (also referred to as the lower recessed area). The lower recessed area **240**, is preferably a cutout, and is intended to eliminate pressure on the area covered by the rectus abdominis muscle

complex, commonly known as the stomach, and allowing movement of the diaphragm for free breathing. Prior art devices provided a lower recessed area for male genital areas, while a stomach area is accommodated by a slight recess, if at all. This is the case because the prior art devices are made predominantly for spa use, where a person using the device is awake and does not require the same comfort level for the abdomen, nor requiring extended periods of unconsciousness and associated impaired breathing ability.

[0034] The width of the hip support extensions **160** may also be uniform. In such an alternative, it would be preferable to set the hip support extensions **160** as wide apart as possible to still create a comfortable abdominal recess region **240**. In another alternative, the hip support extensions **160** may be linked, but recessed at the area **240**. In such an alternative embodiment, the lower recessed area **240** may have an internal blow up chamber. Such a chamber may be filled with liquid or air, which may be released to create or increase a recess or reintroduced to eliminate the recess.

[0035] FIG. **2** refers to the top view of the preferred invention. Shown are a body support device **10**, a top surface **20**, a central axis **50**, an outer edge **60**, a first support area **70**, a second support area **80**, a cross element **90**, a bridge area **100**, side cutouts **105**, a width of the first support area **110**, a width of the second support area **120**, a width of the bridge area **130**, extensions **140**, distal ends **150**, third support areas **160**, a narrow area **170**, an inner edge **180**, an inner side of the extensions **190**, a rear facet of the cross element **200**, a tapered edge **210**, a frontal portion **230**, and a lower recessed area **240**. The outer edge **60** encircles the entire device **10**. The device **10** may be viewed as two symmetrical halves that are split by an abstract central axis **50**. The first support area **70**, a second support area **80**, and a bridge area **100** combine in forming an hourglass shaped device with extensions **140** providing a third support area.

[0036] The dimensions of the preferred embodiment are listed below. However, a device representing the present invention may be formed using alternative dimensions. The outer edge **60** encircles the corners **72**, creating arches between 2.4 and 3.4 radians around abstract reference points **72***a* and **72***b*. The outer edge **60** then forms diagonal sections **72***d* and **72***e*, which may be between 2 and 5 inches in length. The opposite sidewalls **40** of the bridge area **100** are preferably convex arches **72***f* and **72***g* that are between 2.0 and 3.2 radians, and which lead into the cross element **90**. The cross element **90** preferably contains corners **72***h* and **72***i* that are preceded by substantially straight portions **90***a* and **90***b* that are between 3.0 and 5.0 inches in length. The outer edge **60** preferably forms arcs between 1.4 and 1.6 radians about the abstract points **90***c* and **90***d*. These arcs lead into the straight sides **72***j* and **72***k* that are preferably between 13.0 inches and 15.0 inches in length. The width **160***k* of the third support areas **160** may preferably be between 2.5 inches and 4.5 inches, with the length **160***l* between 4.0 inches and 6.0 inches. The width **170***w* of the narrow areas **170** may preferably be between 1.0 and 2.0 inches; with the length **170***l* between 5.0 inches and 8.0 inches. The outer edge **60** and the lower outer edge **62** (FIG. **1**) preferably have equal measurements.

[0037] The rear facet **200** of the cross element **90**, preferably forms and inner edge **180** with an arch of 14" and 3.1 radians, such that the lower recessed area **240** preferably contains a substantially oval area of approximately 13×8 inches, with the center **240***r* at point between 13 and 15 inches from the frontal portion **230**. The preferred width **120** of the second support area **80** may be between 14.5 inches and 17 inches, with the preferred width **110** of the first area between 8.0 inches and 11.0 inches, and preferably between 4.0 and 6.0 inches for the width **130** of the bridge area **100**. The inner sides of the extensions **190** preferably form arcs **180***a* and **180***b* of 1.6 radians between the narrow areas **170** and the wide areas **160**. The overall width **260** of the device **10** may preferably be between 20 and 25 inches.

[0038] The narrow area **170** is a connector to third support area **160**, with minimal support function of its own. The third support area **160** is intended to provide support for the anterior superior iliac spine. The lower recessed area **240** provides a relaxation cavity for the rectus abdominis muscle and internal organs protected by it, and allows free movement of the diaphragm for breathing while asleep. The sidewall **40** (FIGS. **1** and **4**) may preferably be between 1.0 and 4.0 inches in height, at the terminal ends **165**. However, when in use, the extent of the compression of the sidewall **40** depends upon the filler material utilized. Thus the top surface **20** would be sufficiently elevated at this point to enable a relaxed downward position for the thighs and a normal, discomfort-free sexual arousal for men. Preferably, the device **10** contains two extensions **140**.

[0039] The outer edge **60** and the inner edge **180** may preferably be tapered, especially in areas **210**. The tapering or beveling is needed for a more rounded or reduced joint between the sidewall **40** and the top surface **20**. This reduced joint is less likely to cause discomfort or interfere with circulation. The joint may be created with an adhesive or stitching. The top and bottom surfaces **20** and **30** may be of different sizes. Either the top surface **20** or the bottom surface **30** may contain frictional or fuzzy fabric to prevent slippage and to improve comfort.

[0040] Still referring to FIG. **2**, illustrated is another preferred embodiment of the present invention. Shown is a top surface **20** of a body support device **10** with a central axis **50**. Also shown is an outer edge **60**, a first support area **70**, a second support area **90**, a bridge area **100**, extensions **140**, distal ends **150**, two third support areas **160**, terminuses **165**, a narrow area **170**, an inner edge **180**, an inner side of the extensions **190**, a rear facet of the cross element **200**, a tapered edge **210**, a frontal portion **230**, and a lower recessed area **240**.

[0041] FIGS. **3** and **4** illustrate the side view of the present invention. The sidewall **40** may be uniform in height throughout the present invention. The sidewall **40** may be completely soft and flexible, or may be springy and resilient, to provide a minor degree of structural integrity. The sidewall **40** may contain a plurality of openings (not shown) to expel any captured air as a result of a sudden downward pressure exerted by a person's body. Also illustrated in FIGS. **3** and **4** is a body support device **10**, a top surface **20**, a bottom surface **30**, a sidewall **40**, an outer edge **60**, a lower outer edge **62**, a first support area **70**, a corner **72**, a second support area **80**, a bridge area **100**, and an extension **140**. The preferred height **250** of the sidewall **40** may preferably range between 1 and 4 inches, when in use. The sidewall **40** is required to lift a person **270** off of a flat surface, which presumably is a top of a mattress (not shown). This lift, along with the side cutouts **105** and a lower recessed area **240** (FIGS. **1**, **2**), is needed to provide a hygienic rest, in which the usual points of morning pain are relieved, breathing is made easy, and gravity is manipulated to keep key snoring contributors out of the airway.

[0042] FIG. **4** demonstrates the prone position of a person **270** who is resting on the device **10**. The person's chin and head may be resting on a pillow (not shown), while the torso is being lifted off a support surface **290** by the device **10**. Alternatively, the chin may rest on the support surface **290** as well. The breasts are relaxed and suspended within the side

cutout **105**. The genital areas and legs are in a relaxed position. The arms are laying along side the device **10** on the mattress, and are also not bearing any weight, except their own. The main pressure is now on areas that are most capable of tolerating it without discomfort, such as the rib cage, the Sternum, the oblique muscles and the pelvic bones. The present invention may thus serve as a novel device for permitting safe, hygienic and comfortable alternative position to the more traditional supine and lateral positions.

[0043] The present invention is designed to relieve or alleviate multiple problems associated with prone sleeping. For example, older or overweight people are likely to achieve better oxygen absorption primarily due to abdominal relief that allows for easy diaphragm movement. Side cutouts **105** and avoid impinging upon the breasts while the abdominal recess region **240** between the hip support extensions **160** may also provide genital relief.

[0044] Although this invention has been described with a certain degree of particularity, it is to be understood that the present disclosure has been made only by way of illustration and that numerous changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and the scope of the invention.

What is claimed:

1. An upper body support device, comprising:

a shaped layer of a soft, spongy material having a substantially contiguous top support surface, a substantially contiguous bottom surface, a convex sidewall joining said top and bottom surfaces and a central axis, and wherein said upper body support device is substantially minor symmetric about a plane through said central axis; and

wherein said shaped layer comprises:

a substantially symmetrical, upper chest support region situated at a top end of said upper body support device and having a mid chest support area recessed with respect to a first corner support region located in a vicinity of a left end of the upper chest support and a second corner support region located in a vicinity of a right end of the upper chest support;

a substantially symmetric, lower rib support region extending laterally to the left and right beyond the corresponding ends of said upper chest support; and connected to said upper chest support by a sternum bone sport region, oriented along the central axis and shaped so as to form two breast cutouts on either side of said sternum bone support region; and

two hip support extensions located in a vicinity of a bottom of said upper body support device and wherein said hip support extensions are mirrors of each other about a plane along the central axis and are separated by an abdominal recess region and joined to said lower rib support region in a vicinity of the left and right outer regions of said lower rib support region.

2. The body support device of claim **1**, wherein said hip support extensions contain a wide area and a narrow area, said narrow area connecting said hip support extensions to said lower rib support region.

3. The body support device of claim **1** wherein said substantially contiguous bottom surface substantially identical in shape to said top support surface.

4. The body support device of claim **3**, further comprising an inner edge, said inner edge running along an inner side of said extensions, and said inner edge running along a rear facet of said lower rib support region.

5. The body support device of claim **4**, wherein said inner edge is beveled.

6. The body support device of claim **1**, further comprising a recess, said recess disposed in a frontal portion of said upper chest support.

7. The body support device of claim **1**, further comprising a lower recessed area, said lower recessed area framed by said hip support extensions and said lower rib support region.

8. The body support device of claim **1**, wherein said upper chest support is narrower than said lower rib support region.

9. The body support device of claim **4**, wherein said outer edge is elliptical.

10. A body support device comprising:

a top surface, a bottom surface, a sidewall, a central axis, and an outer edge;

a first support area;

a second support area, said second support area having a cross element;

a bridge area, said bridge area linking said first support area and said second support area along said central axis;

a width of said first support area and said second support area substantially greater than the width of said bridge area;

at least one extension emanating from said cross element, said at least one extension running parallel to said central axis; and

a lower recessed area, said lower recessed area framed by said extension and said cross member.

11. The body support device of claim **10**, further comprising a recess, said recess disposed in a frontal portion of said first support area.

12. The body support device of claim **10**, further comprising at least two extensions, said extensions issuing from distal ends of said cross element and running substantially opposite each other.

13. The body support device of claim **10**, wherein said extension contains a third support area and a narrow area.

14. The body support device of claim **13**, further comprising an inner edge, said inner edge running along an inner side of said extension, and said inner edge running along a rear facet of said cross element.

15. The body support device of claim **14**, wherein said inner edge is beveled.

16. The body support device of claim **10**, wherein said first support area is narrower than said second support area.

17. The body support device of claim **10**, wherein said first support area, said second support area and said bridge area form side cutouts.

* * * * *