MAT HAVING PADDED PORTION

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ABSTRACT
Mats having an additional padded or cushioned portion are disclosed herein. An exercise mat with additional padding in appropriate locations may enhance user comfort, protect against injury, and/or ease strain on body parts that support substantial weight. The exercise mats herein described comprise a substantially planar body portion combined with one or more portions with additional padding. The size, shape, number, and placement of the padded portions may be tailored to the intended use of the exercise mat. The padded portion may be integrated into the exercise mat between layers of the body portion or alternatively, the padded portion may be attached to an exterior planar surface of the exercise mat.
MAT HAVING PADDED PORTION

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This Application claims the benefit of a U.S. provisional application No. 60/892,488 entitled “Mat Having Padded Portion”, filed Mar. 1, 2007, which is hereby incorporated by reference in its entirety.

BACKGROUND

[0002] Many activities that take place on the ground or on the floor may be made easier and more pleasant with the use of a mat or other padded surface. Many mats have been designed for sleeping outdoors or for use at the beach. Various sports have also required surfaces with different degrees of softness and various dimensions resulting in the development of a variety of athletic mats. Illustrative of the various sports that may utilize a mat are yoga, gymnastics, martial arts, and general exercise. Now mats are available in a variety of sizes and shapes.

[0003] Some individuals, for example, the elderly, pregnant women, and individuals with health problems that prevent them from participating in other sports often seek fun, low-impact methods of exercise. However, while these individuals are attracted to exercise, they are discouraged by the pain caused by the exertion of pressure on portions of the body not well configured to take such pressure, such as the knees, elbows, shoulders, hips, pelvis, buttocks, and the head. Additionally, body parts such as the hands and feet, while naturally adapted to support portions of the body’s weight, may nevertheless cause an individual to experience pain when loaded at certain angles, in certain positions, or for long periods of time. Some individuals may thus be precluded from participating in exercise because of pain caused by focusing the body’s weight on certain areas of the body.

SUMMARY

[0004] Mats having an additional padded or cushioned portion are disclosed herein. When performing exercises some of the body parts may support the weight of the entire body for an extended period of time. An exercise mat with additional padding in appropriate locations may enhance user comfort, protect against injury, and/or ease strain on body parts that support substantial weight. A user of these mats may rest his/her knees or elbows on the padded portion for additional cushioning of tender joint areas. Further, some users of exercise mats may find that pressure applied to areas such as the hands, shoulders, buttocks, hips, pelvis, feet, and head may cause discomfort and the use of a padded portion is desirable. The exercise mats herein described comprise a substantially planar body portion combined with one or more portions with additional padding. The size, shape, number, and placement of the padded portions may be tailored to the intended use of the exercise mat. The padded portion may also be integrated into the mat or attached and moved at the discretion of the user. Finally, the padded portion may be integrated into the exercise mat between layers of the body portion or alternatively, the padded portion may be attached to an exterior planar surface of the exercise mat.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] FIG. 1A is a first isometric view of an embodiment of an exercise mat.

[0006] FIG. 1B is a second isometric view of the exercise mat of FIG. 1A.

[0007] FIG. 2A is an isometric view of the exercise mat of FIG. 1A indicating length and width dimensions.

[0008] FIG. 2B is a cross section elevation view of the exercise mat of FIG. 2A indicating length and height dimensions.

[0009] FIG. 3A is an isometric view of a second embodiment of an exercise mat indicating length and width dimensions.

[0010] FIG. 3B is a cross section elevation view of the exercise mat of FIG. 3A indicating length and height dimensions.

[0011] FIG. 4 is an isometric view of the exercise mat of FIG. 3A with a user in a “Cat-Cow Series” yoga posture.

[0012] FIG. 5 is an isometric view of the exercise mat of FIG. 3A with a user in a “Shoulder Stand” yoga posture.

[0013] FIG. 6 is an isometric view of the exercise mat of FIG. 3A with a user in a “Bow” yoga posture.

DETAILED DESCRIPTION

[0014] One implementation of an exercise mat disclosed herein may comprise a generally rectangular body portion having a substantially uniform thickness and an extraneous portion integrated with the exercise mat. Implementations of exercise mats described herein may be formed in a variety of sizes and shapes and are not limited to a generally rectangular shape. The extra portion when combined with the body portion of the exercise mat provides an added thickness than the thickness of the body portion of the exercise mat alone resulting in additional cushioning in the area of the padded portion. The padded portions may help support and ease strain on the body, such as while exercising. The exercise mats disclosed may be used for cushioning the body while exercising, but may also be used for cushioning the body while kneeling, such as during gardening or other activities. The exercise mats described herein may be used for many exercises, for example, yoga, pilates, PiYo, weight-lifting, stretching, gymnastics, martial arts, and physical therapy.

[0015] The padded portion of the exercise mat provides padding to cushion more tender areas of the body, such as knees, elbows, and hands during kneeling activities, while the remainder or body portion of the exercise mat may be formed to be thinner to help a user feel more grounded or stable to enhance balance during exercise. For example, during yoga exercises the thinner portions of the exercise mat may be used for holding standing poses while the padded portions of the exercise mat may be used to provide additional cushioning for the knees, elbows, and/or hands during kneeling poses. Additionally, the padded portion may be used to cushion the shoulders, buttocks, hips or the head during exercises wherein the user lays on the exercise mat. For example, during pilates exercises, portions of the user’s hip are often substantially supporting the user’s body and could benefit from additional cushioning. Implementations of exercise mats having additional padded portions may enhance the exercise experience by eliminating the need for people to roll or double-over their exercise mats or to use additional padded exercise mats, cushions, pillows, or blankets, which may slip in relation to the exercise mat.

[0016] Implementations of exercise mats may comprise a padded, cushioned, or thickened portion integrated with a body portion of the exercise mat. The body of the exercise mat may comprise two substantially uniform opposing planar
surfaces. During use of the exercise mat, one of the planar surfaces may contact the floor and the other opposing planar surface may be in contact with a person during exercise. The padded portion may be designed such that it extends above/beyond both of the planar surfaces on both sides of the exercise mat. In other embodiments the padded portion may be designed such that it extends above/beyond only one of the planar surfaces on one side of the exercise mat. Additionally, the padded portion of the exercise mat may also have gradually sloped sides so that the padded portion gradually merges into the thinner body portions of the exercise mat. In yet another embodiment, the padded portion may be disposed between layers of the body portion of the exercise mat such that one or both of the substantially uniform opposing surfaces are not planar in the area of the padded portion. The padded portion disposed within the body portion may cause the substantially uniform opposing surfaces to bow outwardly in the area where the padded portion is located.

[0017] The padded portions may be positioned at a number of different locations on the exercise mat and may be formed in a variety of different shapes and sizes. In some exemplary embodiments the padded portion may comprise one portion extending across the width of the exercise mat. In this embodiment the single raised portion may be used to cushion the knees or elbows, for example. In another exemplary embodiment the padded portions may comprise two portions extending across the width of the exercise mat. In this embodiment one portion may be used to cushion the knees and one portion may be used to cushion the elbows or hands, for example.

[0018] In other embodiments exercise mats may be formed with several different padded portions. An exercise mat may include a padded portion positioned near one end of the exercise mat for supporting the head. An exercise mat may also include separate padded portions spaced apart for cushioning the hands or elbows and for cushioning the knees or feet. An exemplary exercise mat for yoga may comprise three padded portions disposed as two portions extending along the length or width of the exercise mat for cushioning the knees/feet and elbows/hands and a third padded portion at one end of the exercise mat for cushioning the head or near the middle of the exercise mat for cushioning the hips, buttocks, and pelvis.

[0019] Implementations of exercise mats disclosed herein may also be designed with padded portions extending across the width of the exercise mat, extending along the length of the exercise mat, or disposed as various shapes (e.g., circles, squares, triangles, bands, etc.) in a number of different locations on the exercise mat. The number and positioning of the padded portions may be determined by the ultimate athletic purpose of the exercise mat to best accommodate or comfort the user of the exercise mat.

[0020] Implementations of exercise mats disclosed herein may be formed of a number of different materials, for example, durable foam, to provide some cushioning while having a high-tack surface to prevent slipping during activity. Other exemplary materials may include cellular vinyl, rubber, open cell foam, bio-cellular foam from soybean or corn plants, bamboo, natural rubbers, polyethylene, latex, polyvinyl chloride (PVC), jute, polymer environmental resin (PER) plastic, or thermoplastic elastomer (TPE) which contains carbon and hydrogen. Any number of other materials having cushioning and/or elastomeric properties may also be used. In one embodiment, the body portion and the padded portion of the exercise mat may be formed of the same materials. In an alternative embodiment, it may be possible or desirable to use different materials to construct the body portion and the padded portion of the exercise mat.

[0021] Implementations of exercise mats disclosed herein may be formed of a material which is soft enough to provide comfort while having a surface that is tacky enough to prevent slipping or sliding during exercise. The exercise mats may also be formed of a material which is both durable and washable to provide a more hygienic exercise surface. The exercise mats may be thin enough to be rolled and fitted into a bag, such as a yoga bag, or wrapped with a carrying strap. Alternatively, the exercise mats may be folded one or more times and fitted into a bag or wrapped with a carrying strap. The exercise mats may also be formed from toxin-free materials, for example, materials free of phthalate based plasticizers, such as dinocyl phthalate (DOP) softeners, toluene, Azo dyes, or heavy metals. The exercise mats may be ecologically friendly through manufacture with degradable, biodegradable, and/or recyclable materials and may provide a more health-friendly appeal if made without latex, PVC, and other various chlorides.

[0022] Implementations of exercise mats having padded portions described herein may be formed as single unitary structures or may be formed such that the padded portions may be detachably coupled to/from the body portion of the exercise mat. The exercise mats may be formed by an extruding process, wherein a foam mat may thicken in desired locations to form the padded portion. Alternatively, the exercise mats may be formed in a mold with the body portion and padded portion formed together in the same mold or formed in separate molds and later coupled together. When formed separately, the body portion and padded portion may be formed into an exercise mat by either permanently or detachably coupling the padded portion to the body portion in the desired location. Another way of forming the exercise mat may be to laminate the padded portion between two adjacent layers of the body portion of the exercise mat. More specifically, the body portion of the exercise mat may comprise at least two layers with generally matching planar surfaces joined together through the use of high heat, pressure, and/or adhesives. At least one padded portion may be placed between the layers of the body portion of the exercise mat in desired locations and then sealed in those locations through the laminating process as described above.

[0023] The padded portion may comprise the same material as the body portion of the exercise mat or alternatively it may comprise a different material, for example, cotton, polyester and/or wool batting, down, or ethylene-vinyl acetate (EVA) foam. In one embodiment the padded portion may be integrated with the body portion of the exercise mat. In this embodiment it may be desirable to provide a gradually sloped edge where the padded portion meets the body portion of the exercise mat. The gradually sloped edge portion may help to prevent the user from tripping or stumbling when moving from one area of the exercise mat to another area. Other processes and materials may also be used to form the exercise mats disclosed herein.

[0024] In other embodiments, the padded portion of the exercise mat may be formed separately from the body portion of the exercise mat. The padded portion may be removable from or capable of being detachably coupled to the body portion of the exercise mat. In these embodiments the padded portion may be formed of the same material as that of the
body of the exercise mat or may be formed of materials different from that of the body of the exercise mat. The padded portion may be formed as a pillow structure and stuffed with a different material, for example, batting. In one implementation the padded portion may be sized to be received by a pocket located on the body portion of the exercise mat. In another implementation the padded portion may be detachably coupled to an area of the body portion of the exercise mat, for example, with a hook-and-loop fastening mechanism, adhesive materials, belts, or clips. Alternatively, the padded portion may be formed separately from the body portion of the exercise mat and may simply be used in conjunction with the exercise mat. In this embodiment, the exercise mat and the padded portion may have tacky surfaces that operate to keep the padded portion securely in place and prevent slipping or sliding of the padded portion in relation to the exercise mat.

[0025] In some implementations the padded portion may be formed as a hollow area containing a bladder or reservoir which may be filled with a fluid, for example, air, water, or gel. In this implementation a user may inflate the padded portion of the exercise mat with the fluid to the desired thickness and/or firmness via a fluid conduit extending outwardly from the bladder to the exterior of the exercise mat. This fluid conduit may be equipped with a valve or a cap to selectively seal the fluid conduit and the fluid within the bladder. In this embodiment a user would also have the option to refrain from inflating the padded portions during certain exercise activities to use the exercise mat as a mat having a substantially uniform thickness. Alternatively, the fluid may be hermetically sealed within the bladder at the time of manufacture.

[0026] Referring now to FIGS. 1A and 1B, one embodiment of the exercise mat is shown. More specifically, the exercise mat 100 is generally rectangular in shape with a singular padded portion 102 spanning the width of the exercise mat 100 in a position closer to one end of the exercise mat 100 than the other. The padded portion 102 is depicted in FIGS. 1A and 1B as fully integrated into the body portion 104 of the exercise mat 100 and incorporates gradually sloped edges 106 to help prevent the user from tripping or stumbling when moving from one area of the exercise mat 100 to another area. In this specific configuration, the padded portion 102 may be utilized for cushioning the user’s hands, elbows, knees, shoulders, buttocks, hips, pelvis, feet, or head depending on the position of the user’s body on the exercise mat 100. The embodiment of the exercise mat 100 depicted in FIGS. 1A and 1B is merely an example of one configuration of the exercise mat 100. The orientation of the exercise mat 100 depicted in FIGS. 1A and 1B is for purposes of illustration only and other orientations of the body portion 104 and padded portion 102 of the exercise mat 100 may also be used without departing from the spirit and scope the exercise mats disclosed herein.

[0027] Referring now to FIGS. 2A and 2B, an embodiment of an exercise mat 200 may comprise a body portion 204 and a padded portion 202 in a single seamless layer. The exercise mat 200 may have exemplary dimensions of approximately 68”-74” inches in length (l) by approximately 22”-26” inches in width (w). The body portion 204 of the exercise mat 200 may have a thickness (h) of approximately 3/16”-5/16” of an inch while the padded portion 202 of the exercise mat 200 may have a thickness (2 h) of approximately 3/8”-5/8” of an inch. In some implementations the length (c) of the padded portion of the exercise mat 200 may be approximately 14” inches and the padded portion 202 may extend across the entire width (w) of the exercise mat 200. The length (b) of the gradual sloping edge portions 206 of the padded portion 202 may be approximately 2” inches. Further, the padded portion 202 of the exercise mat 200 may be located approximately 30-34” inches from a first longitudinal end 214 of the exercise mat 200 or alternatively approximately 24-26” inches from a second longitudinal end 216 of the exercise mat 200. The exercise mat 200 may weigh between approximately 4-8 lbs. These exemplary dimensions are for purposes of illustration only and other dimensions may also be used without departing from the spirit and scope the exercise mats disclosed herein.

[0028] Referring now to FIGS. 3A and 3B, another embodiment of an exercise mat 300 may comprise a body portion 304 having two layers laminated together with a padded portion 302 located in between the two layers of the body portion 304. The padded portion 302 may comprise the same material as the body portion 304 or alternatively it may comprise a different material. The padded portion may also comprise a bladder or reservoir. Similar to the embodiment shown in FIGS. 2A and 2B, the exercise mat 300 may have exemplary dimensions of approximately 68”-74” inches in length (l) by approximately 22”-26” inches in width (w). The body portion 304 of the exercise mat 300 may have an overall thickness (h) of approximately 3/16”-5/16” of an inch and each of the two layers may have a thickness (h/2) of approximately 3/32”-5/32” of an inch or half of the overall thickness of the body portion 304 of the exercise mat 300. The padded portion 302 of the exercise mat 300 may have a thickness (l) of approximately 3/8”-5/8” of an inch. When the padded portion 302 is laminated between the two layers of the body portion 304, the overall thickness (ih) of the exercise mat where the padded portion 302 is located may be approximately 3/8”-5/8” of an inch. In some implementations the length (c) of the padded portion 302 of the exercise mat 300 may be approximately 14” inches and the width (i) of the padded portion 302 may be approximately 20-24” inches. Accordingly, the padded portion 302 may be centered across the width (w) of the exercise mat 300 resulting in an offset (g) between the edges of the padded portion 302 and the edges of the body portion 304 equaling approximately 1” inch on each side to allow the two layers of the body portion 304 to be laminated together on all sides of the padded portion 302. Alternatively, the padded portion 302 may extend across the entire width (w) of the exercise mat 300 similar to the exercise mat 200 depicted in FIGS. 2A and 2B, resulting in the padded portion 302 being exposed on each side of the exercise mat 300. Further, the padded portion 302 of the exercise mat 300 may be located approximately 30-34” inches from a first longitudinal end 314 of the exercise mat 300 or alternatively approximately 24-26” inches from a second longitudinal end 316 of the exercise mat 300. The exercise mat 300 may weigh between approximately 4-8 lbs. These exemplary dimensions are for purposes of illustration only and other dimensions may also be used without departing from the spirit and scope the exercise mats disclosed herein.

[0029] Referring now to FIG. 4, a user 402 is depicted in a “Cat-Cow Series” yoga posture on the exercise mat 404. The “Cat-Cow Series” is a kneeling posture wherein the weight of the body is substantially supported by the hands and the knees of the user 402. FIG. 4 shows the user 402 utilizing the padded portion 406 of the exercise mat 404 to provide additional
cushioning to her knees while performing this posture. Additionally, the user 402 could perform this posture with an additional padded portion cushioning her hands.

[0030] Referring now to FIG. 5, a user 502 is depicted in a “Shoulder Stand” (or Sarvangasana) yoga posture on the exercise mat 504. The “Shoulder Stand” is an inverted posture wherein the weight of the body is substantially supported by the shoulders and elbows of the user 502. FIG. 5 shows the user 502 utilizing the padded portion 506 of the exercise mat 504 to provide additional cushioning to her shoulders and elbows while performing this posture.

[0031] Referring now to FIG. 6, a user 602 is depicted in a “Bow” (or Dhanurasana) yoga posture on the exercise mat 604. The “Bow” is a prone posture wherein the weight of the body is substantially supported by the pelvic region of the user 602. FIG. 6 shows the user 602 utilizing the padded portion 606 of the exercise mat 604 to provide additional cushioning to her pelvis while performing this posture.

[0032] The attached sheets of exemplary drawings are for purposes of illustration only and the dimensions, sizes and shapes reflected in the drawings attached hereto may vary. These exercise mats may be formed in a variety of sizes and shapes and it is anticipated that the number, position, and thickness of the padded portions of the exercise mats may vary and be changed to best fit with the demands of a particular use. Furthermore, the exercise mats having padded portions as described herein are not limited to exercise mats used for exercise purposes nor are they limited to approximately rectangular exercise mats. The exercise mats having padded portions may be used for a number of other applications.

What is claimed is:

1. An exercise mat comprising:
   a body portion of a first thickness; and
   a padded portion of a second thickness that is integral with the body portion,
   wherein a combination of the body portion and the padded portion is thicker than the body portion or the padded portion alone.

2. The exercise mat of claim 1, wherein the body portion comprises two or more layers.

3. The exercise mat of claim 2, wherein the padded portion is disposed in between the two or more layers of the body portion.

4. The exercise mat of claim 1, wherein the padded portion is fixably attached to a planar surface of the body portion.

5. The exercise mat of claim 4, wherein the padded portion gradually slopes toward the planar surface to which the padded portion is attached.

6. The exercise mat of claim 1, wherein the padded portion and the body portion are formed as a monolithic construction.

7. The exercise mat of claim 1, wherein the padded portion comprises multiple portions of padding integrated with the exercise mat.

8. The exercise mat of claim 1, wherein the padded portion extends across a width the exercise mat.

9. The exercise mat of claim 1, wherein the padded portion extends along a length of the exercise mat.

10. The exercise mat of claim 1, wherein the padded portion and the body portion are formed of thermoplastic elastomer (TPE).

11. The exercise mat of claim 1, wherein the padded portion and the body portion are formed of different materials.

12. The exercise mat of claim 1, wherein the body portion is formed of thermoplastic elastomer (TPE) and the padded portion is formed of ethylene-vinyl acetate (EVA) foam.

13. An exercise mat comprising:
   a body portion;
   a bladder disposed within a section of the body portion adapted to be filled with fluid to provide a padded portion of the exercise mat.

14. The exercise mat of claim 13, wherein the bladder is filled with a gel.

15. The exercise mat of claim 13, wherein the bladder is filled with air.

16. The exercise mat of claim 13, wherein the bladder is filled with water.

17. The exercise mat of claim 13, wherein the bladder is defined as a cavity within the body portion.

18. The exercise mat of claim 13, wherein the bladder is filled with the fluid and is hermetically sealed.

19. The exercise mat of claim 13, further comprising:
   a fluid conduit in fluid communication with the hollow bladder and extending outside of the body portion; and
   a sealing member that selectively seals the fluid conduit.

20. A method of manufacturing an exercise mat comprising:
   forming a first planar mat layer;
   forming a second planar mat layer;
   forming a padded portion;
   placing the padded portion at a desired location upon a first surface of the first planar mat layer;
   placing the second planar mat layer immediately over the first planar mat layer with the padded portion in between the first and second planar mat layers; and
   laminating the first and second planar mat layers of the exercise mat together with the padded portion between the first and second planar mat layers at the desired location.

21. The exercise mat of claim 20, wherein the padded portion is enveloped on all sides by the first and second planar mat layers of the exercise mat.

22. The exercise mat of claim 20, wherein the padded portion and the first and second planar mat layers are formed of thermoplastic elastomer (TPE).

23. The exercise mat of claim 20, wherein the padded portion and the first and second planar mat layers are formed of different materials.

24. The exercise mat of claim 23, wherein the first and second planar mat layers are formed of thermoplastic elastomer (TPE) and the padded portion is formed of ethylene-vinyl acetate (EVA) foam.

25. A method of using an exercise mat having a padded portion integrated with a body portion comprising:
   placing the exercise mat on a floor with a padded portion of the exercise mat extending upwardly;
   placing a portion of a user’s body in contact with the padded portion of the exercise mat; and
   transferring a substantial portion of the user’s body weight onto the portion of the user’s body in contact with the padded portion of the exercise mat.

26. The method of claim 25, wherein a portion of the user’s body is selected from a group comprising: a knee, elbow, hand, shoulder, buttocks, hip, pelvis, foot, and head.

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