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(54) **MEDICAL MODESTY GARMENT**

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(57) **ABSTRACT**

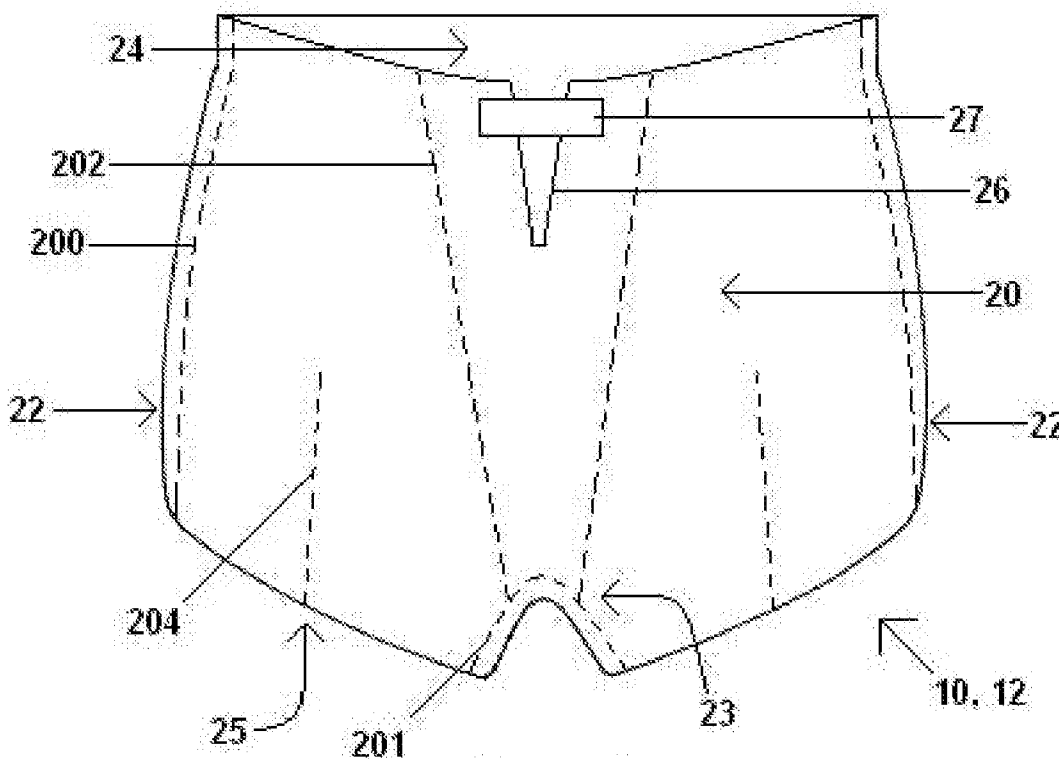
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A medical modesty garment is disclosed which allows easy access to and removal from a patient's body while providing improved patient modesty and privacy. The medical modesty garment may comprise a lower garment shaped like shorts, and/or an upper garment shaped like a tee shirt. The medical modesty garment of the invention may comprise perforations that may be torn to provide selective access to a patient's body or that may be torn to easily remove the garment from the patient.

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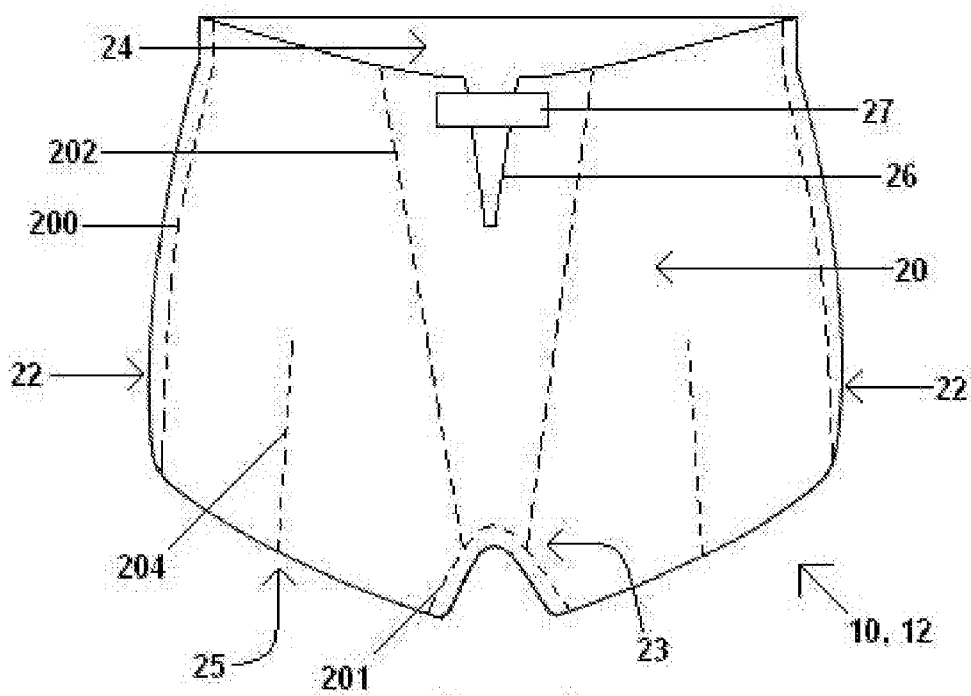


Figure 1

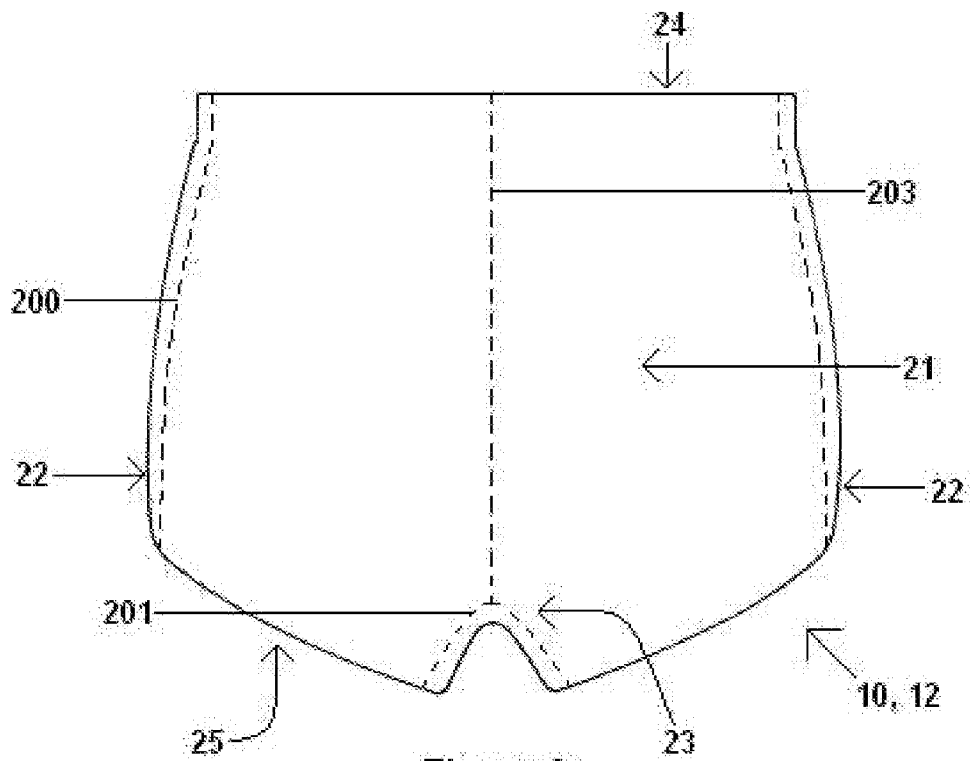


Figure 2

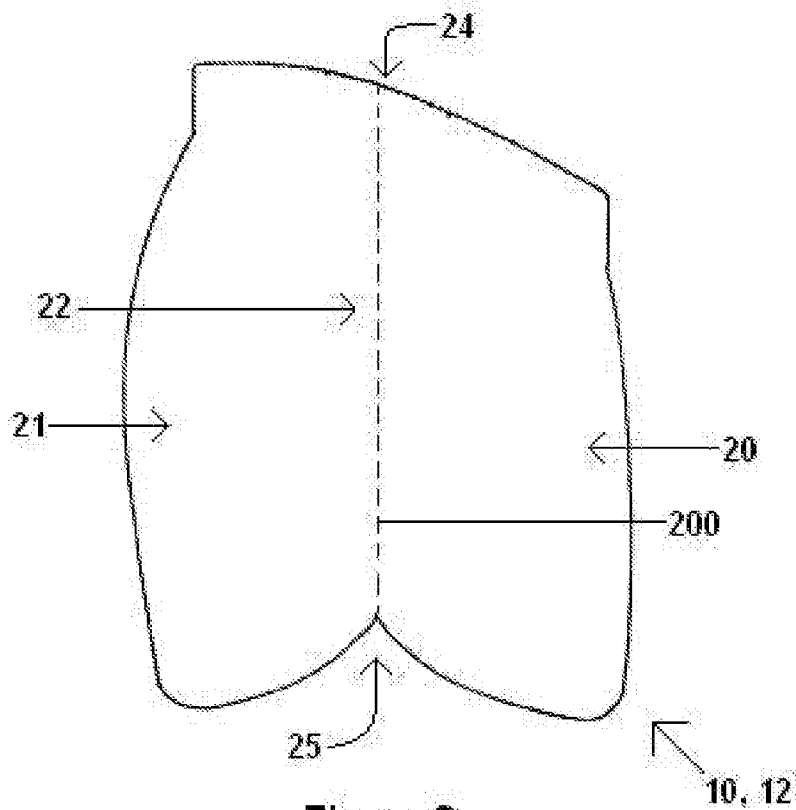


Figure 3

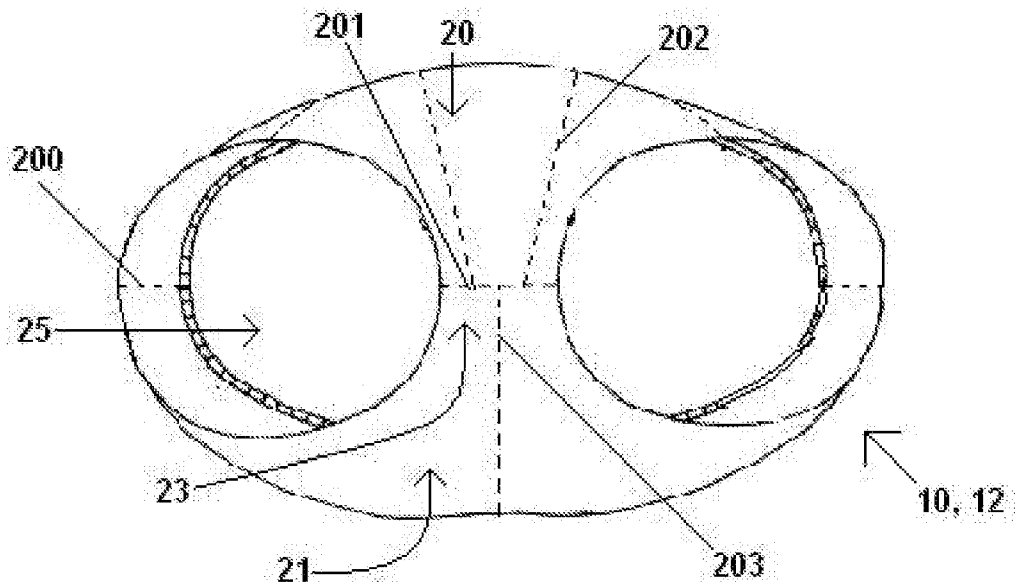


Figure 4

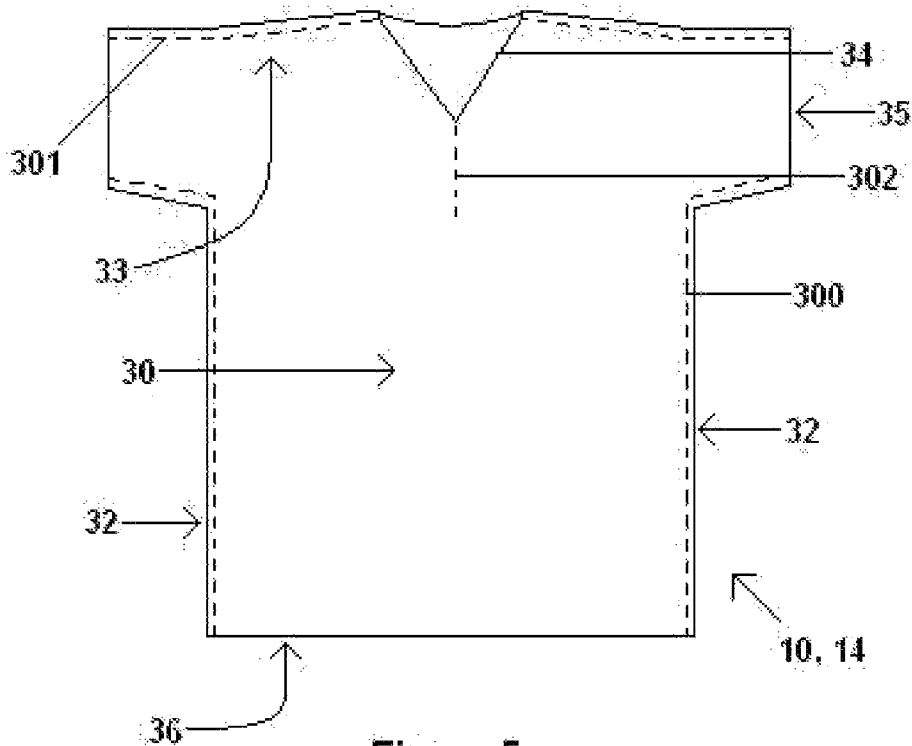


Figure 5

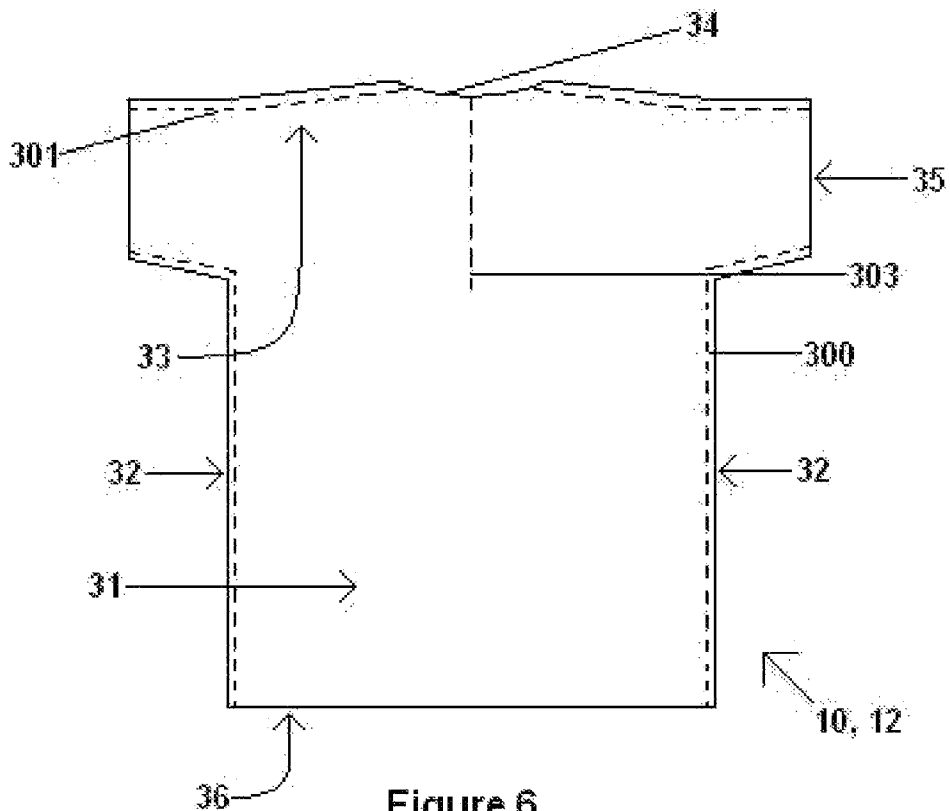


Figure 6

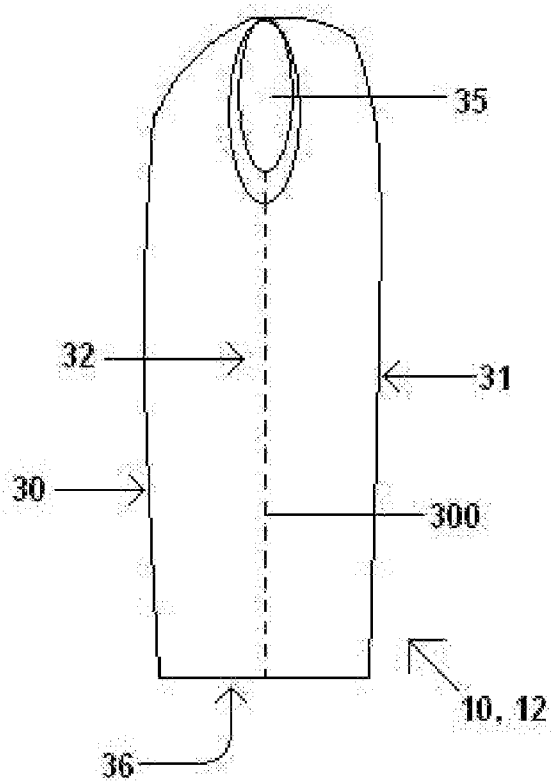


Figure 7

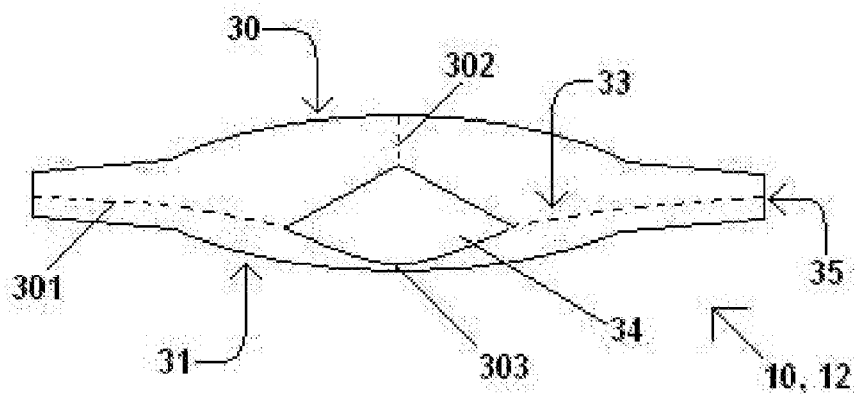


Figure 8

MEDICAL MODESTY GARMENT

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority under 35 U.S.C. §119(e) to U.S. provisional application No. 60/816,476 filed Jun. 26, 2006, which is incorporated by reference herein in its entirety.

TECHNOLOGY FIELD

[0002] The invention relates generally to medical garments. More particularly, the invention relates to a medical modesty garment that provides easy access to and easy removal from a patient's body.

BACKGROUND

[0003] Patients in hospitals, clinics, and physicians' offices are often asked to undress to improve surgical and medical access. In an effort to improve patient modesty and privacy, nonsurgical and some surgical patients are provided with medical gowns. Conventional medical gowns are designed as simple gowns which loosely cover the anterior part of the body, require ties posteriorly, and significantly compromise patient privacy. Further, when conventional gowns are worn by a patient, they do not allow nurses, anesthesiologists and surgeons the necessary access they need to all or part of a patient's body before, during, and immediately after surgical procedures. As a result, conventional gowns must be removed prior to surgical procedures and surgical patients are usually asked to undress completely.

[0004] There is a need for a medical modesty garment that is safely, rapidly, and easily removed, regardless of patient positioning, and provides a medically sound balance between the needs of nurses/physicians and a patient's desire for modesty/privacy.

SUMMARY

[0005] This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description of Illustrative Embodiments. This Summary is not intended to identify key features or essential features of the invention, nor is it intended to be used to limit the scope of the invention.

[0006] Provided herein is a medical modesty garment that enhances patient privacy and comfort, while allowing a multitude of medical procedures to proceed safely and effectively by providing selective access to covered portions of the patient's body and rapid removal regardless of the patient's position. The garment allows selective access to particular regions of a patient's body for medical examination and/or treatment, such as, for example, placement of EKG leads, positioning of IV lines, insertion of catheters, access to rectal and/or groin area, and endoscopic and/or urologic procedures. Further, the garment allows rapid removal regardless of patient position (e.g. sitting, standing, supine, prone, and left or right lateral decubitus), allowing very rapid removal in an emergency situation.

[0007] The garment comprises a material having tear lines that can be torn to expose a patient's body. The tear lines may comprise perforations or an otherwise weakened portion of the material, such as, for example, a score. The tear lines may be selectively placed throughout the garment to provide access to particular regions of the body for medical examina-

tion and/or treatment. Also, the tear lines may be selectively positioned throughout the garment to provide easy removal regardless of the position of the patient wearing the garment.

[0008] According to one embodiment, the garment may comprise a lower garment shaped like shorts. The lower garment preferably has a one-piece construction, but may have any other conventional construction, such as, for example, a seamed two-panel construction. The lower garment may comprise a posterior portion, an anterior portion, two lateral (that is, generally on the sides) portions, a crotch portion, a waist opening (which may be a band, but which encompasses other structure), and two leg openings. The posterior and anterior portions may be disposed opposite each other, connected on the sides by the lateral portions, and partially connected on the bottom by the crotch portion, thereby creating a waist opening around the top and two leg openings on the bottom. The anterior portion preferably includes a slit that extends partially down the anterior portion from the waist opening, and a fastening means for maintaining the slit closed and for adjusting the size of the waist opening. The fastening means may include, for example, a hook and loop closure (for example, Velcro®).

[0009] The lower garment may further comprise tear lines. These tear lines may include lateral tear lines, a crotch tear line, anterior tear lines, a posterior tear line (such as in the center-rear), leg tear lines, or any combination thereof. The lateral tear lines may extend down the lateral portions of the lower garment from the waist opening to a leg opening. The crotch tear line may extend across the crotch portion of the lower garment from one leg opening to the other. The anterior tear lines may extend down the anterior portion of the lower garment from the waist opening to the crotch tear line. The posterior tear line may extend down substantially the center of the posterior portion of the lower garment from the waist opening to the crotch tear line. The leg tear lines may extend from a leg opening, partially up the anterior portion of the lower garment. When both the lateral and crotch tear lines are torn, the anterior and posterior portions of the lower garment may be completely separated, thereby allowing easy removal of the garment. When the lateral tear lines, crotch tear line, anterior tear lines, posterior tear line, leg tear lines, or any combination thereof are torn or partially torn, the lower garment may provide access to the patient's body for medical examination and/or treatment (e.g. rectal exams, colonoscopy, gynecological exams, urologic procedures). Also, the lower garment may minimize injury when placed on individuals who are too large, by automatically tearing along the perforations adjacent the waist opening and/or leg openings.

[0010] According to another embodiment, the garment may comprise an upper garment shaped like a tee shirt. The upper garment preferably has a one-piece construction, but may have any other conventional construction, such as, for example, a seamed two-panel construction. The upper garment may comprise an anterior portion, a posterior portion, two lateral portions, two upper portions, a neck opening, two arm openings, and a torso opening. The anterior and posterior portions may be disposed opposite each other, partially connected on the sides by the lateral portions, and partially connected on the top by the two upper portions, thereby creating a neck opening, two arm openings, and a torso opening. Preferably, the neck opening is a V-neck opening.

[0011] The upper garment may further comprise tear lines. These tear lines may include lateral tear lines, upper tear lines, an anterior tear line, a posterior tear line, or any combination

thereof. The lateral tear lines may extend down the lateral portions of the upper garment from an arm opening to the torso opening. The upper tear lines may extend across the upper portions of the upper garment from the neck opening to an arm opening. The anterior tear line may extend partially down the anterior portion of the upper garment from the neck opening. Alternatively, the anterior tear line may extend from the neck opening down to the torso opening. The posterior tear line may extend partially down the posterior portion of the upper garment from the neck opening. Alternatively, the posterior tear line may extend from the neck opening down to the torso opening. When both the lateral and upper tear lines are torn, the anterior and posterior portions of the upper garment may be completely separated, thereby allowing easy removal of the garment. When the lateral tear lines, upper tear lines, anterior tear line, posterior tear line, or any combination thereof are torn or partially torn, the upper garment provides access to the patient's body for medical examination and/or treatment (e.g. placement of EKG leads, breast exams). Also, the upper garment may minimize injury when placed on individuals who are too large, by automatically tearing along the perforations adjacent the neck opening, arm openings, and/or torso opening.

[0012] In another embodiment, the garment comprises both a lower garment and an upper garment as described above. The combination of the upper and lower garment provides the ability to access most or all parts of a patient's body, as described herein, while maintaining privacy until access is needed.

[0013] The medical garment is preferably made of a non see-through material to preserve the privacy and modesty of the patient wearing the garment. Preferably, the garment is also made of a thin material—allowing standard physical examination (i.e. auscultation of the lungs, heart, and abdomen, abdominal palpation, and examination of head, neck, and upper and lower extremities) to proceed without significant interference. Also, the garment is preferably made of a material that is radiolucent so that the patient does not have to disrobe for radiologic procedures (e.g. x-rays). Further, the garment may be made of a tearable fabric so that even portions of the garment not having tear lines may be torn.

[0014] The garment may be worn by a patient as an undergarment under a conventional hospital gown to provide improved privacy and modesty. Also, the garment can be worn before, during, and after medical/surgical procedures and does not need to be removed during the performance of surgery in many cases (e.g. surgery involving upper and lower extremities, head, eyes, etc.)

[0015] Additional features and advantages of the invention will be made apparent from the following detailed description of illustrative embodiments that proceeds with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] The foregoing summary, as well as the following detailed description, is better understood when read in conjunction with the appended drawings. For the purpose of illustrating the medical modesty garment, there is shown in the drawings exemplary embodiments; however, the medical modesty garment is not limited to the specific embodiments disclosed.

[0017] FIG. 1 shows an anterior view of an exemplary lower garment.

[0018] FIG. 2 shows a back view of the lower garment shown in FIG. 1.

[0019] FIG. 3 shows a lateral view of the lower garment shown in FIG. 1.

[0020] FIG. 4 shows a bottom view of the lower garment shown in FIG. 1.

[0021] FIG. 5 shows an anterior view of an exemplary upper garment.

[0022] FIG. 6 shows a back view of the upper garment shown in FIG. 5.

[0023] FIG. 7 shows a lateral view of the upper garment shown in FIG. 5.

[0024] FIG. 8 shows a top view of the upper garment shown in FIG. 5.

DETAILED DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

[0025] According to one embodiment, as shown in FIG. 1-4, the medical modesty garment 10 may comprise a lower garment 12 shaped like shorts. As shown in FIGS. 1-4, the lower garment 12 comprises an anterior portion 20, a posterior portion 21, two lateral portions 22, a crotch portion 23, a waist opening 24, and two leg openings 25. The posterior 20 and anterior 21 portions are disposed opposite each other, connected on the sides by the lateral portions 22, and partially connected on the bottom by the crotch portion 23, thereby creating a waist opening 24 around the top and two leg openings 25 on the bottom. The lower garment 12 preferably has a one-piece construction, but may have any other conventional construction, such as, for example, a seamed two-panel construction. The anterior portion 20 preferably includes a closure comprising a slit 26 that extends partially down the anterior portion 20 from the waist opening 24, and a fastening means or tab 27 for maintaining the slit 26 closed and for adjusting the size of the waist opening 24. It is not necessary for the closure to span the longitudinal perforations. Alternatively, the closure may be disposed on the posterior portion 21. Also, in lieu of the slit 26, the closure may comprise a plurality of pleats that can be drawn together or spread apart to adjust the size of the waist opening 24. The fastening means 27 may include, for example, a hook and loop closure (Velcro®) or elastic.

[0026] In accordance with this embodiment, as shown in FIG. 1-4, the lower garment 12 further comprises tear lines. These tear lines include lateral tear lines 200, a crotch tear line 201, anterior tear lines 202, a posterior tear line 203, leg tear lines 204, or any combination thereof. The lateral tear lines 200 extends down the lateral portions 22 from the waist opening 24 to a leg opening 25. The crotch tear line 201 may extend across the crotch portion 23 from one leg opening 25 to the other. The anterior tear lines 202 may extend down the anterior portion 20 from the waist opening 24 to the crotch tear line 201. The posterior tear line 203 may extend down substantially the center of the posterior portion 21 from the waist opening 24 to the crotch tear line 201. The leg tear lines 204 may extend from a leg opening 25, partially up the anterior portion 20.

[0027] When both the lateral 200 and crotch 201 tear lines are torn, the anterior 20 and posterior 21 portions may be completely separated, thereby allowing easy removal of the lower garment 12. When the lateral tear lines 200, crotch tear line 201, anterior tear lines 202, posterior tear line 203, leg tear lines 204, or any combination thereof are torn or partially torn, the lower garment 12 may provide access to the patient's

body for medical examination and/or treatment (e.g. rectal exams, colonoscopy, gynecological exams, urologic procedures). Also, the lower garment **12** may minimize injury when placed on individuals who are too large, by automatically tearing along the tear lines adjacent the waist opening **24** and/or leg openings **25**.

[0028] According to another embodiment, as shown in FIG. 5-8, the medical modesty garment **10** may comprise an upper garment **14** shaped like a tee shirt. As shown in FIGS. 5-8, the upper garment **14** comprises an anterior portion **30**, a posterior portion **31**, two lateral portions **32**, two upper portions **33**, a neck opening **34**, two arm openings **35**, and a torso opening **36**. The anterior **30** and posterior **31** portions are disposed opposite each other, partially connected on the sides by the lateral portions **32**, and partially connected on the top by the two upper portions **33**, thereby creating a neck opening **34**, two arm openings **35**, and a torso opening **36**. The upper garment **14** preferably has a one-piece construction, but may have any other conventional construction, such as, for example, a seamed two-panel construction. Also, the upper garment preferably has a V-neck opening, but may have any other suitable opening, such as, for example, a crewneck opening.

[0029] The upper garment **14** further comprises tear lines. These tear lines include lateral tear lines **300**, upper tear lines **301**, an anterior tear line **302**, a posterior tear line **303**, or any combination thereof. The lateral tear lines **300** may extend down the lateral portions **32** from an arm opening **35** to the torso opening **36**. The upper tear lines **301** may extend across the upper portions **33** from the neck opening **34** to an arm opening **35**. The anterior tear line **302** may extend partially down the anterior portion **30** from the neck opening **34**. Alternatively, the anterior tear line **302** may extend down the anterior portion **30** from the neck opening **34** to the torso opening **36**. The posterior tear line **303** may extend partially down the posterior portion **31** from the neck opening **34**. Alternatively, the posterior tear line **303** may extend down the posterior portion **31** from the neck opening **34** down to the torso opening **36**. When both the lateral **300** and upper **301** tear lines are torn, the anterior **30** and posterior **31** portions may be completely separated, thereby allowing easy removal of the upper garment **14**. When the lateral tear lines **300**, upper tear lines **301**, anterior tear line **302**, posterior tear line **303**, or any combination thereof are torn or partially torn, the upper garment **14** provides access to the patient's body for medical examination and/or treatment (e.g. placement of EKG leads, breast exams). Also, the upper garment **14** may minimize injury when placed on individuals who are too large, by automatically tearing along the tear lines adjacent the neck opening **34**, arm openings **35**, and/or torso opening **36**.

[0030] In another embodiment, not shown, the medical modesty garment **10** may comprise both a lower garment **12** and an upper garment **14** as described above.

[0031] The functionality of the lower garment **12** may be illustrated by describing how garment **12**, as shown in FIGS. 1-4, may be used. Lower garment **12** can be removed from a patient that is sitting or supine by, for example, grasping the anterior portion **20** at waist opening **24** and pulling downwardly or outwardly to tear the lateral tear lines **200** and, optionally, the crotch tear line **201**. Tearing the garment in such a fashion allows the anterior region of a patient that is sitting or supine to be exposed. Similarly, the lower garment **12** may be removed to expose the posterior region of a patient that is prone by, for example, grasping the posterior portion

21 at waist opening **24** and pulling downwardly or outwardly to tear the lateral tear lines **200** and, optionally, crotch tear line **201**. The lower garment **12** may also be removed from a patient in a lateral decubitus position by, for example, grasping a lateral portion **22** on either side of the lateral tear line **200** and tearing the lateral tear line **200** and the crotch tear line **201**.

[0032] Alternatively, lower garment **12** can also be used to only partially expose a patient's lower body. For example, garment **12** can be partially removed to expose the crotch area of a patient that is sitting or supine by grasping the center of the anterior portion **20** at the waist opening **24** and tearing the anterior tear lines **202** and, optionally, the crotch tear line **201**. A patient's rectal area may be exposed by, for example, grasping the posterior portion **21** on either side of the posterior tear line **203** and tearing the posterior tear line **203** and, optionally, crotch tear line **201**. The anterior portion of a patient's legs may be exposed by grasping the anterior portion **20** at the leg openings **25** on either side of the leg tear lines **204** and tearing the leg tear lines **204**. Also, the lateral tear lines **200** may be partially torn to expose a lateral portion of a patient's leg.

[0033] The functionality of the upper garment **14** may be illustrated by describing how garment **14**, as shown in FIGS. 5-8, may be used. Upper garment **14** may be removed from a patient that is supine by, for example, grasping the upper portions **33** at the neck opening **34** and pulling downwardly or outwardly to tear the upper tear lines **301** and lateral tear lines **300**. Tearing the garment in such a fashion allows the anterior region of a patient that is supine to be exposed. Similarly, the upper garment **14** may be removed to expose the posterior region of a patient that is prone by, for example, grasping the posterior portion **31** at neck opening **34** and pulling downwardly or outwardly to tear the upper tear lines **301** and lateral tear lines **300**. The upper garment **14** may also be removed from a patient in a lateral decubitus position by, for example, grasping the anterior and posterior portions of an arm opening **35** and tearing a lateral tear line **300** and an upper tear line **301**.

[0034] Alternatively, upper garment **12** can also be used to only partially expose a patient's upper body. Lateral tear lines **300** and upper tear lines **301** may be partially torn to only partially expose a portion of a patient's body. A patient's neck and chest area may be exposed by, for example, grasping the anterior portion **30** at the neck opening **34** on either side of the anterior tear line **302** and tearing the anterior tear line **302**. Also, a patient's back and neck area may be exposed by, for example, grasping the posterior portion **31** at the neck opening **34** on either side of the posterior tear line **303** and tearing the posterior tear line **303**.

[0035] While systems and methods have been described and illustrated with reference to specific embodiments, those skilled in the art will recognize that modification and variations may be made without departing from the principles described above.

We claim:

1. A lower garment for a person's lower torso for use in a health-care setting, the lower garment comprising:
 - a body having a waist opening forming an upper margin, a first leg opening, and a second leg opening;
 - a crotch perforation extending between the first and second leg openings, the leg openings and the crotch perforation defining a lower margin;

a first lateral perforation extending between the upper margin and the first leg opening and a second lateral perforation extending between the upper margin and the second leg opening and located approximately opposite the first lateral perforation, the lateral perforations at least partly define an anterior portion and a posterior portion of the garment, the lateral perforations and the crotch perforation enable (i) removal of the anterior portion of the garment if a wearer is supine and (ii) removal of the posterior portion of the garment if the wearer is prone;

a closure located either in the anterior portion or the posterior portion and capable of drawing together portions of the garment near the waist opening to change the waist opening dimension;

a pair of front perforations formed in the anterior portion of the garment and extending upward from the lower margin, the front perforations at least partly defining a front panel, the front perforations enable at least partial opening of the front panel relative to a remainder of the garment to enable access to the groin area of the person; and

at least one rear perforation extending between the upper margin and the lower margin.

2. The lower garment of claim 1 wherein the body comprises a pair of short pant legs.

3. The lower garment of claim 2 further comprising at least one leg perforation in each one of the legs, the leg perforation is capable of rupturing to accommodate leg sizes.

4. The lower garment of claim 2 further comprising a closure located in each one of the pant legs, the closure is capable of drawing together portions of the garment of or near the leg to change the leg opening dimension.

5. The lower garment of claim 1 wherein the closure includes a first closure portion located on a first body portion and at least one second closure portion located on a second body portion, the first closure portion and the at least one second closure portion are capable of being brought together to reduce the waist opening dimension.

6. The lower garment of claim 5 wherein the first closure portion is one of a hoop portion or a loop portion, and at least one second closure portion is the other one of the hoop portion or the loop portion.

7. The lower garment of claim 6 wherein the at least one second closure portion is a plural number of the hook portions or the loop portions, thereby enabling the closure to be adjustable as to waist opening dimension.

8. The lower garment of claim 1 wherein the closure includes elastic.

9. The lower garment of claim 1 wherein the closure includes a frangible pleat that is ruptured to expand the waist opening.

10. The lower garment of claim 1 wherein each one of the perforations is a series of holes formed in the body.

11. The lower garment of claim 1 wherein the body is formed of a radiolucent material.

12. The lower garment of claim 1 wherein the first lateral perforation and the second lateral perforation are longitudinal.

13. The lower garment of claim 2 wherein the first lateral perforation and the second lateral perforation are disposed at midpoints of the sides of the garment.

14. The lower garment of claim 1 wherein the front perforations extend to the upper margin.

15. The lower garment of claim 1 wherein the rear perforation is centrally located.

16. The lower garment of claim 1 wherein the crotch perforation has a lower tear strength than each one of the tear strengths of the lateral perforations.

17. An upper garment for a person's upper torso for use in a health-care setting, the upper garment comprising:

a body having a waist opening, a neck opening, a first arm opening, and a second arm opening;

a first upper perforation extending between the neck opening and the first arm opening and a second upper perforation extending between the neck opening and the second arm opening, the neck opening and first and second upper perforations defining an upper margin,

a first lateral perforation extending from the waist opening to the first arm opening and a second lateral perforation extending from the waist opening to the second arm opening, the first and second upper perforations and the first and second lateral perforations enable (i) removal of an anterior portion of the garment if a wearer is supine and (ii) removal of a posterior portion of the garment if the wearer is prone;

at least one front perforation extending downwardly from the upper margin, whereby rupturing of the front perforation enables or enhances access to the chest of the wearer.

18. The upper garment of claim 17 wherein the front perforation extends downwardly from the neck opening and has an end that is spaced apart from the waist opening.

19. The upper garment of claim 17 further comprising at least one rear perforation extending downwardly from the upper margin.

20. The upper garment of claim 19 wherein the rear perforation extends downwardly from the neck opening and has an end spaced apart from the waist opening.

21. The upper garment of claim 17 further comprising a pair of short arms located on opposing sides of the neck opening and terminating in the arm openings, the upper perforations extending along an upper portion of the arms.

22. The upper garment of claim 17 further at least one of a perforation in the body, the perforation is capable of rupturing to accommodate torso sizes.

23. The upper garment of claim 17 further comprising a closure located either in an anterior portion or a posterior portion of the upper garment and capable of drawing together portions of the garment to change a dimension thereof.

24. The upper garment of claim 23 wherein the closure is located near the waist opening and is capable of changing the waist opening dimension.

25. The upper garment of claim 23 wherein the closure includes a first closure portion located on a first body portion and at least one second closure portion located on a second body portion, the first closure portion and the at least one second closure portion are capable of being brought together to reduce the waist opening dimension.

26. The upper garment of claim 25 wherein the first closure portion is one of a hoop portion or a loop portion, and at least one second closure portion is the other one of the hoop portion or the loop portion.

27. The upper garment of claim 26 wherein the at least one second closure portion is a plural number of the hook portions or the loop portions, thereby enabling the closure to be adjustable as to garment dimension.

28. The lower garment of claim 23 wherein the closure includes elastic.

29. The lower garment of claim 23 wherein the closure includes a frangible pleat that is ruptured to expand the waist opening.

30. The lower garment of claim 17 wherein each one of the perforations is a series of holes formed in the body.

* * * * *