CLAIMS

I/We claim:

1. A system comprising:

a pressure-mitigation apparatus that includes a geometric arrangement of inflatable chambers formed by interconnections between a top layer and a bottom layer,

wherein an outer surface of the bottom layer is comprised of silicone rubber, and

wherein the inflatable chambers are configured to mitigate contact pressure applied to a human body by a support surface when pressure in the inflatable chambers is varied; and

an attachment apparatus for securing the pressure-mitigation apparatus to the support surface;~~.~~

wherein the attachment apparatus has a longitudinal body comprised of a non-slip material, and is configured to be positioned between the pressure-mitigation apparatus and the support surface such that the longitudinal body contacts the outer surface of the bottom layer of the pressure-mitigation apparatus and the support surface; thereby providing sufficient tackiness to naturally limit movement of the pressure-mitigation apparatus in relation to the support surface, but allowing the pressure-mitigation apparatus to be readily detached from the attachment apparatus.

2. The system of claim 1

wherein the top layer of the pressure-mitigation apparatus is comprised of a ~~first~~ second material that is configured for direct contact with the human body.~~, and~~

~~wherein the bottom layer is comprised of a second material configured for direct contact with the attachment apparatus.~~

~~3. The system of claim 1 wherein the attachment apparatus is comprised of a material that provides sufficient tackiness to naturally limit movement of the pressure-mitigation apparatus in relation to the support surface.~~

34. The system of claim 13 wherein the non-slip material is polyurethane, polypropylene, silicone, or a rubber compound.

45. The system of claim 1 wherein the attachment apparatus includes a first adhesive film disposed along a top surface that contacts the bottom layer of the pressure-mitigation apparatus.

56. The system of claim 45 wherein the attachment apparatus includes a second adhesive film disposed along a bottom surface that contacts the support surface.

67. The system of claim 1 wherein the attachment apparatus includes

a top layer that contacts the bottom layer of the pressure-mitigation apparatus, and

a bottom layer that contacts the support surface.

78. The system of claim 67 wherein the attachment apparatus further includes a pliable core disposed between the top and bottom layers.

89. The system of claim 78 wherein the pliable core is comprised of polyurethane foam, polyethylene foam, latex, wool, cotton, a woven fabric, a non-woven fabric, natural fibers, or synthetic fibers.

910. A method for manufacturing a pressure-mitigation apparatus designed to mitigate pressure applied to a human body by a support surface, the method comprising:

acquiring a first sheet comprised of a first material;

acquiring a second sheet comprised of a second material;

creating a cavity by forming an interconnection along a periphery of the first and second sheets without any intervening sheets therebetween; and

creating a geometric pattern of chambers by forming at least one additional interconnection between the first and second sheets,

wherein the chambers are formed such that each chamber can be independently pressurized; and

applying a silicon rubber coating to an outer surface of the second sheet.

1011. The method of claim 910 wherein the first material is a liquid-impervious material configured for direct contact with a human body.

1112. The method of claim 910 further comprising:

forming perforations in the first sheet to allow the passage of fluids through the first sheet into the cavity.

1213. The method of claim 1112 further comprising:

securing a liquid-impervious lining to an interior surface of the first sheet to inhibit the fluids from entering the chambers.

1314. The method of claim 910 wherein the second material is a liquid-impervious material configured for direct contact with a support surface or an attachment apparatus.

1415. The method of claim 910 further comprising:

applying an antimicrobial coating to an exterior surface of the first sheet, the second sheet, or any combination thereof.

1516. The method of claim 910 further comprising:

applying a non-slip coating to an exterior surface of the first sheet, the second sheet, or any combination thereof.

~~17. A method for manufacturing an attachment apparatus designed to secure a pressure-mitigation apparatus to a support surface, the method comprising:~~

~~acquire a roll of pliable material that provides sufficient tackiness to naturally limit movement of the pressure-mitigation apparatus in relation to the support surface;~~

~~cutting the pliable material into a first segment and a second segment;~~

~~creating a cavity by forming an interconnection along a periphery of the first and second segments; and~~

~~inserting a pliable core into the cavity.~~

~~18. The method of claim 17 further comprising:~~

~~applying an adhesive coating to an exterior surface of the first segment, the second segment, or any combination thereof~~

~~19. The method of claim 17 further comprising:~~

~~forming perforations in the first segment to allow the passage of fluids into the cavity.~~

~~20. The method of claim 17 wherein the pliable core is comprised of polyurethane foam, polyethylene foam, latex, wool, cotton, a woven fabric, a non-woven fabric, natural fibers, or synthetic fibers.~~