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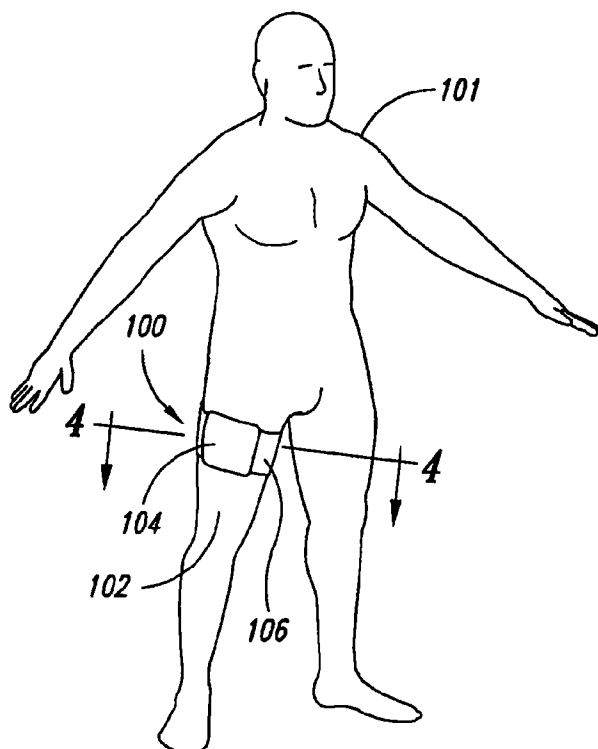
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(54) Title: METHOD AND APPARATUS FOR NON-INVASIVELY REMOVING HEAT FROM SUBCUTANEOUS LIPID-RICH CELLS INCLUDING A COOLANT HAVING A PHASE TRANSITION TEMPERATURE



(57) Abstract: Cooling devices, such as a thermally conductive device, systems, and methods for removing heat from subcutaneous lipid-rich cells, and more particularly to a coolant in a flexible membrane wherein the coolant preferably has a phase transition temperature less than or approximately equal to about 0°C. The thermally conductive device may have compartments with varying phase transition temperatures to provide differential cooling to a treatment region. Alternatively, the thermally conductive device has a stratification of layers with varying phase transition temperatures to provide an increasing or decreasing temperature profile. The thermally conductive device may further have an anatomically conformal shape. The thermally conductive device, for example, can be triangular shaped for an abdomen region, oval shaped for a hip region, figure eight shaped for a buttocks region, or rectangular shaped for a thigh region.