CLAIMS

1. A covering unit to assist in maintaining a user's optimal body temperature, the covering unit comprising:

an insulative element that closely fits a portion of the user's head and ears to maintain a euthermic state of the user during a surgical procedure;

a shell component having an inner surface, an outer surface and a lower edge, the inner surface being attached to the insulative element;

a first side panel;

a second side panel;

a top center panel that forms a front, a center and a rear connected to the first side panel and the second side panel;

an information display formed within or attached to the shell component and located at a position that corresponds generally along the centerline of a wearer's head from front to back and positioned about the front upper crown or forehead area of the user's head;

a GPS sensor incorporated within the shell component;

a plurality of vital signs sensors to monitor a plurality of vital body sign parameters, the vital signs sensors being in operational communication with the information display; and

means to grip formed of a medial and a lateral side panel adapted to cover in close proximity a mid point of the external auditory meatus bilaterally, the means contains the head from shifting and moving when the covering unit is laid on the posterior, the medial or the lateral side of the body,

wherein the covering unit is a surgical cap adapted to extend in close proximity to the head over much of the user's forehead, over the user's ears, across the rear to a base of the user's head, and along a line where the head and neck meet, wherein the surgical cap is adapted to lie against the user's head in contact with the forehead, the ears and the base of the user's head, wherein the surgical cap is adapted to additionally insulate at least a portion of the user's head covered by the surgical cap, wherein the surgical cap is adapted to cover a substantial portion of the user's head, and wherein the surgical cap is adapted to insulate a greater portion on the anterior of the user's head with insulation as compared to the rest of the head.

2. A covering unit according to Claim 1, in which

the information display comprises a user interface in wireless operative communication with the vital signs sensors; and

the vital signs sensors are selected from the group consisting of: body temperature; electrocardiogram (ECG); respiratory rate (RR) and End Tidal Carbon Dioxide (ETCO2); heart rate (HR); oxygen saturation (SpO2); photoplethysmography (PPG); blood glucose (BG); carbon monoxide level (SpCO); blood pressure (BP); and hydration levels (HL).

3. A covering unit according to Claim 2, in which the insulative element comprises material having a thickness greater than 2 mm on the areas adapted to cover the posterior, the anterior and the top portions of the head.

4. A covering unit according to Claim 2, further comprising a material having a thickness less than 2-mm at the areas adapted to cover both lateral side portions of the head.

5. A covering unit according to Claim 1, in which the insulative component is selected from the group comprising a ceramic fiber material, a phase change material and a synthetic microfiber.

6. A covering unit according to Claim 1, in which the insulative element covers a rear portion of the covering unit such as to cover the head and the upper neck region of the user.

7. A covering unit according to Claim 1, in which the shell component is made from a flexible material that can expand to fit different sized heads.

8. A covering unit according to Claim 6, in which the shell component is made of an anti-static material.

9. A covering unit according to Claim 1, in which the covering unit is made from an asymmetric pattern cut from a section of the covering unit adapted to cover the front of the head and a section of the covering unit adapted to cover the rear of the head such that the pattern is concave so as to emulate the shape of the front and the rear of the head and to prohibit the covering unit from falling off.