## CLAIMS

1. An injector for delivering a therapeutic product comprising a flexible base having a surface that conforms to various body contours of a patient, the surface defining an injection chamber therein, wherein the surface comprises a flexible layer for forming a vacuum between the flexible layer and a skin of the patient, and wherein the base has a vent aperture and wherein movement of a cover relative to the base causes air to move through the vent aperture for releasing the vacuum generated between the flexible layer of the base and the skin.

2. The injector of claim 1 wherein the cover is disposed over the base.

3. The injector of claim 1 or claim 2, wherein the flexible layer stretches or pinches the skin.

4. The injector of claim 1 or 2, further comprising a flexible isolator disposed over the injection chamber, the isolator for drawing a portion of the skin up into the injection chamber defined in the surface.

5. The injector of claim 4, wherein the isolator has a concave surface for drawing the portion of the skin up into the injection chamber defined in the surface.

6. The injector of claim 1 or 2, further comprising:

a syringe disposed within the injector containing a therapeutic product;

a needle shield removably attached to the syringe; and

a peelable substrate disposed over the surface for removing the needle shield from the syringe.

7. The injector of claim 6, wherein the peelable substrate has a structure which can be folded into a pull-tab to facilitate removal of the peelable substrate from the surface of the base.

8. The injector of claim 6, wherein the peelable substrate has a structure with opposing portions that can be folded down against one another to facilitate removal of the peelable substrate from the surface of the base.

9. The injector of claim 6, wherein the peelable substrate has a projection extending from an attachment surface thereof for attaching the peelable substrate to the needle shield.

10. The injector of claim 2, wherein the cover has a palm-button for pressing the cover toward the base to start an injection cycle of the injector.

11. The injector of claim 2, wherein the cover has at least one finger-pad for gripping the injector.

12. The injector of claim 11, wherein the at least one finger-pad is located on the cover to meet a gripping requirement of a certain patient population.

13. The injector of claim 2, wherein the cover is coated with a layer of material for hand or finger gripping of the injector.

14. The injector of claim 6, wherein the cover has a window for viewing the syringe during an injection cycle of the injector.

15. The injector of claim 1 or 2, wherein the injector has a low profile.

16. The injector of claim 6, wherein the syringe has a needle for injecting the therapeutic product contained within the syringe into the patient and further comprising a carrier provided on the base, the carrier for moving the syringe between first and second positions during an injection cycle of the injector, the needle disposed within the injector in the first position, the needle extending from the base in the second position.

17. The injector of claim 16, wherein the syringe has a plunger for dispensing the therapeutic product from the syringe and through the needle and further comprising a plunger drive for driving the plunger through the syringe to dispense the therapeutic product from the syringe and through the needle, the plunger drive comprising one of a motor, a spring, a hydraulic actuator, or any combination thereof.

18. The injector of claim 17, wherein the plunger drive is activated by pressing the cover toward the base.

19. The injector of claim 16, further comprising a carrier drive for moving the carrier between the first and second positions, the carrier drive having one of a motor drive element, a spring drive element, a hydraulic drive element, or any combination thereof.

20. The injector of claim 19, wherein the carrier drive is activated by pressing the cover toward the base.

21. The injector of claim 19, wherein the carrier drive is disposed at an acute angle relative to the base.

22. The injector of claim 21, further comprising a needle guide for bending the needle into the injection chamber.

23. The injector of claim 16, further comprising a heating element disposed adjacent to the carrier for heating the therapeutic product contained in the syringe.

24. The injector of claim 23, wherein the heating element comprises an exothermic heating element.

25. The injector of claim 16, wherein the syringe has a plunger for dispensing the therapeutic product from the syringe and through the needle and further comprising a plunger drive for driving the plunger through the syringe to dispense the therapeutic product from the syringe and through the needle and a carrier drive for moving the carrier between the first and second positions, each of the plunger and carrier drives having one of a motor drive element, a spring drive element, a hydraulic drive element, or any combination thereof.

26. The injector of claim 25, wherein at least one of the plunger and carrier drives is activated by pressing the cover toward the base.

27. The injector of claim 16, wherein the syringe comprises at least two barrels coupled to the needle, each barrel containing a therapeutic product.

28. The injector of claim 16, further comprising at least a second carrier.

29. The injector of claim 28, further comprising at least a second syringe, the second carrier for moving the second syringe between the first and second positions.

30. The injector of claim 1, further comprising a container or syringe containing a therapeutic product.