

CLAIMS

1. An autoinjection device comprising:
 - an injection unit; and
 - an activator unit, the activator unit comprising:
 - an activation housing;
 - an activation engine positioned within an interior area of the activation housing, the activation engine including a spring, a piston, a locking mechanism, and a retaining element;
 - an activation guard at least partially surrounding the activation housing such that a portion of the activation housing is positioned within an interior area of the activation guard, the activation guard extending beyond a proximal end of the activation housing; and
 - an activation shell at least partially surrounding the activation guard such that a portion of the activation guard is positioned within an interior area of the activation shell and a portion of the activation guard is extended beyond a proximal end of the activation shell.
2. The autoinjection device of claim 1, wherein at least one of the activation housing, the activation guard, and the activation shell is substantially cylindrical in shape, wherein the activation guard includes a guard member, and wherein the guard member extends beyond a proximal end of the activation housing.
3. The autoinjection device of claim 1, wherein the activation housing includes a radial protrusion, and
 - wherein the activation guard includes a groove at least partially surrounding the activation housing protrusion such that the activation guard is prevented from linearly translating about the activation housing.
4. The autoinjection device of claim 3, wherein the activation guard includes a radial protrusion, and

wherein the activation shell includes a linear groove surrounding the activation guard protrusion such that a distal end of the linear groove abuts the activation guard protrusion.

5. The autoinjection device of claim 4, wherein the activation shell groove includes an axial length such that the activation shell is configured to linearly translate about the activation guard toward a distal end of the autoinjection device to activate the autoinjection device.
6. The autoinjection device of claim 5, wherein the axial length ranges from approximately 2mm to approximately 16mm.
7. The autoinjection device of claim 5, wherein the activation shell and the activation guard are configured such that there is a relative axial rotation between them.
8. The autoinjection device of claim 5, wherein the activation shell and the activation guard are configured such that relative axial rotation between them is prevented.
9. The autoinjection device of claim 1, further comprising a device lock that is configured to be positioned adjacent a proximal end of the activation shell.
10. The autoinjection device of claim 9, wherein the device lock includes at least one radial ridge along an axial portion.
11. The autoinjection device of claim 1, wherein the activation shell includes a ridge on its outer surface to provide a user with a visual indication as to the end of the autoinjector that includes a needle.
12. The autoinjection device of claim 1, wherein a proximal surface of the activation shell includes a camouflage to obscure a device lock protrusion opening.

13. The autoinjection device of claim 12, wherein the camouflage is a camouflage structure.
14. The autoinjection device of claim 1, wherein a distal surface of the activation guard abuts a shoulder of the activation housing.
15. An activator unit for an autoinjector, the activator unit comprising:
 - an activation housing having an activation engine;
 - an activation guard configured about an exterior surface of the activation housing, the activation guard extending beyond a proximal end of the activation housing; and
 - an activation shell configured about at least a portion of an exterior surface of the activation guard and the activation guard extending beyond a proximal end of the activation shell.
16. The autoinjection device of claim 15, wherein the activation housing includes at least one protrusion, and
 - wherein the activation guard includes a groove surrounding the at least one activation housing protrusion such that the activation guard is configured to rotate about the activation housing.
17. The autoinjection device of claim 15, wherein the activation guard includes at least one protrusion, and
 - wherein the activation shell includes at least one groove surrounding the at least one activation guard protrusion such that the activation shell is configured to translate about the activation guard.
18. The autoinjection device of claim 15, wherein a proximal surface of the activation shell includes a camouflage structure to camouflage a device lock protrusion opening.
19. The autoinjection device of claim 15, wherein a distal surface of the activation guard abuts a shoulder of the activation housing.

20. The autoinjection device of claim 15, wherein the activation shell and activation guard are configured such that relative axial rotation between them is prevented.
21. The autoinjection device of claim 15, wherein the activation shell and activation guard are configured such that they rotate together.
22. An activation guard for an autoinjection device to prevent a user from activating the autoinjection device in an incorrect direction, the activation guard comprising:
 - a guard member to extend proximally beyond an activation housing and an activation shell;
 - a groove configured on a portion of the guard member to engage an activation housing projection; and
 - a projection configured on a portion of the guard member to engage an activation shell groove.
23. The activation guard of claim 22, wherein a portion of the activation housing is positioned within an interior area of the activation guard, and
 - wherein a portion of the activation guard is positioned within an interior area of the activation shell.
24. The activation guard of claim 22, wherein the guard member abuts a user in the incorrect direction, and
 - wherein an injection unit abuts a user in a correct direction.
25. An autoinjector comprising:
 - an activation shell; and
 - a device lock having a protrusion and configured to be positioned about a proximal end of the activation shell;
 - wherein a proximal surface of the activation shell includes a camouflage structure to camouflage a device lock protrusion opening.

26. An activator unit for an autoinjector, the activator unit comprising:

- an activation housing including an activation guard at a proximal end of the activation housing, the activation guard being integrally formed with the activation housing; and

- an activation shell configured about at least a portion of an exterior surface of the activation housing,

- wherein the activation guard extends beyond a proximal end of the activation shell.

27. An activator unit for an autoinjection device, the activator unit comprising:

- an activation housing having a proximal end and a distal end;

- an activation engine positioned within an interior area of the activation housing, the activation engine including a spring, a piston, a locking mechanism, and a retaining element;

- an activation shell to activate the activation engine, the activation shell at least partially surrounding the activation housing; and

- an activation guard extending beyond the proximal end of the activation housing and the activation shell.

28. An activator unit for an autoinjection device, the activator unit comprising:

- an activation housing including a radial protrusion;

- an activation engine positioned within an interior area of the activation housing, the activation engine including a spring, a piston, a locking mechanism, and a retaining element;

- an activation shell to activate the activation engine, the activation shell at least partially surrounding the activation housing such that a portion of the activation housing is positioned within an interior area of the activation shell, the activation shell including a linear groove surrounding an activation guard radial protrusion such that a distal end of the linear groove abuts the activation guard radial protrusion.

29. The activator unit of claim 28, wherein a proximal end of the activation housing extends beyond a proximal end of the activation shell.
30. The activator unit of claim 29, wherein the activation shell linear groove includes an axial length such that the activation shell is configured to linearly translate about the activation housing toward a distal end of the autoinjection device to activate the autoinjection device.
31. The activator unit of claim 30, wherein the axial length ranges from approximately 2mm to approximately 16mm.
32. The activator unit claim 30, further comprising a device lock that is configured to be positioned adjacent a proximal end of the activation shell.
33. The activator unit claim 32, wherein a proximal surface at the proximal end of the activation shell includes a camouflage to obscure a device lock protrusion opening.
34. The activator unit of claim 33, wherein the camouflage is a camouflage structure.
35. The activator unit of claim 34, wherein the camouflage structure includes one or more apertures that extend through the proximal surface of the activation shell.
36. The activator unit of claim 34, wherein the camouflage structure includes one or more indentations that extend distally into the proximal surface of the activation shell.
37. The activator unit of claim 34, wherein the camouflage structure includes one or more protrusions that extend proximally from the proximal surface of the activation shell.