

WHAT IS CLAIMED IS:

1. A medical connector comprising:
 - a housing having a substantially cylindrical housing body having a radial protrusion
5 extending from the substantially cylindrical housing body and a cavity defined by a closed end, an open end, a partially cylindrical inner sidewall of the substantially cylindrical housing body and a radial sidewall of the radial protrusion;
 - a locking structure disposed on a lateral portion of the radial sidewall of the cavity, the locking structure including a sloped tab; and,
 - 10 an insert advanceable into the cavity of the housing, the insert comprising a discoid body having a distal surface, a proximal surface, a sidewall and a locking tab extending proximally from the sidewall, the insert including at least one thread on an inner wall of the locking tab and a recessed notch disposed on a distal portion of an outer wall of the locking tab.
- 15 2. The medical connector of claim 1, wherein the insert rotates from a first position to a locking position, the first position being defined by a medial portion of the radial sidewall and the locking position being defined by the lateral portion, the lateral portion including the locking structure.
3. The medical connector of claim 1, wherein the recessed notch of the insert engages a
20 ledge of the sloped tab of the locking structure when the recessed notch is advanced past the sloped tab.
4. The medical connector of claim 3, wherein an audible click or sound is created when the recessed notch is advanced past the ledge of the sloped tab.
5. The medical connector of claim 1, wherein the locking structure further includes an
25 outwardly sloped surface which slopes outwardly from a medial or leftward position to a lateral or rightward position.
6. The medical connector of claim 5, wherein the outwardly sloped surface causes deformation of the locking tab.

7. The medical connector of claim 1, wherein the locking structure further includes a proximally sloped surface, the proximally sloped surface located adjacent to a ledge of the proximally sloped surface, the proximally sloped surface slopes inwardly with respect to the radial sidewall from a distal position to a proximal position.
- 5 8. The medical connector of claim 1, wherein the distal surface of the insert abuts an inner top surface of the cavity of the housing when the insert is fully advanced into the cavity.
9. The medical connector of claim 1, wherein an absorbent material is disposed between the distal surface of the insert and an inner top surface of the cavity of the housing when the insert is fully advanced into the cavity, the absorbent material containing a disinfectant.
- 10 10. The medical connector of claim 9, wherein fully advancing the insert into the cavity in a distal direction causes the distal surface of the insert and the inner top surface of the cavity of the housing to compress the absorbent material, the absorbent material releasing the disinfectant.
11. The medical connector of claim 10, wherein the disinfectant evacuates into the cavity
15 by a gap defined by the partially cylindrical inner sidewall of the housing and the sidewall of the insert.
12. The medical connector of claim 1, wherein a diameter of the partially cylindrical inner sidewall of the housing has a larger diameter than the sidewall of the insert.
13. The medical connector of claim 1, wherein a retention tab is disposed on an inner top
20 surface of the housing, the inner top surface non-removably securing an aperture disposed on the distal surface of the insert, the aperture extending therethrough.
14. A medical connector comprising:
- a housing having a substantially cylindrical housing body having a radial protrusion extending from the substantially cylindrical housing body and a cavity defined by a closed end,
25 an open end, a partially cylindrical inner sidewall of the substantially cylindrical housing body and a radial sidewall of the radial protrusion;
- a locking structure disposed on a lateral portion of the radial sidewall of the cavity, the locking structure including a sloped tab; and

an insert advanceable into the cavity of the housing, the insert comprising a discoid body having a distal surface, a proximal surface, a sidewall and a locking tab extending proximally from the sidewall, the insert including at least one thread on an inner wall of the locking tab and a recessed notch disposed on a distal portion of an outer wall of the locking tab, wherein threading a corresponding medical connector into the cavity causes the insert to be advanced into the cavity, the corresponding medical connector having at least one thread to engage the at least one thread of the insert.

15. The medical connector of claim 14, wherein the corresponding medical connector is removably threaded into the cavity.

10 16. A syringe comprising:

a housing protruding in a distal direction from a distal wall of a syringe barrel of the syringe, the housing including a cavity defined by the distal wall of the syringe barrel, an open end opposite the distal wall and a partially cylindrical sidewall extending from the distal wall to the open end, the housing further including a radial sidewall defined by a radial protrusion extending laterally from the housing, the radial protrusion and the radial sidewall being in a shape of a laterally protruding arc;

a tapered hub disposed within the cavity of the housing, the tapered hub extending in a distal direction from the distal wall of the syringe barrel, the tapered hub configured to interdigitate with a corresponding cavity of a housing of a vascular access device;

20 a locking structure disposed on the radial sidewall including an outwardly sloped surface, and a sloped tab, the outwardly sloped surface slopes outwardly from a medial or leftward position to a lateral or rightward position, the outwardly sloped surface extending at least partially a length of the laterally protruding arc of the radial sidewall, the sloped tab slopes outwardly from a lateral or rightward position to a medial or leftward position, the sloped tab including a ledge formed by a wall at a substantially right angle with respect to the radial sidewall; and

an insert having a generally discoid body, the generally discoid body having a proximal surface, a distal surface a sidewall, a locking tab and an aperture, the locking tab extending from the distal surface, the aperture is disposed on the proximal surface of the discoid body and extends therethrough, the insert further includes at least one thread is disposed on the wall

of the locking tab, wherein a first position is defined by the medial or leftward portion of the radial sidewall and a locking position is defined by the sloped tab and the ledge, wherein the housing is configured as a needleless connector able to receive a corresponding needleless fitting of a vascular access device, and wherein when the insert is advanced proximally into the
5 cavity of the housing, the locking tab is disposed in the first position causing the locking tab insert to elastically deform outwardly with respect to the radial sidewall.

17. The syringe of claim 16, wherein the partially cylindrical sidewall has a substantially constant diameter.

18. The syringe of claim 16, wherein the partially cylindrical sidewall includes an outward
10 taper, wherein the taper increases distally towards the open end.

19. The syringe of claim 16, wherein the locking tab is configured as a cantilevered prong having a proximal portion and a distal portion and is configured to deflect.

20. The syringe of claim 19, wherein the locking tab further comprises an outer wall and an inner wall, the outer wall including a recessed notch adjacent to a distal edge of the distal
15 portion and extends in a proximal direction at least partially a length of the distal portion.