**WHAT IS CLAIMED IS:**

1. A disinfection cap having a housing comprising:

a top wall,

a cylindrical sidewall having an inner surface defining a cavity,

an open bottom formed by the cylindrical sidewall with an opening to the cavity within said housing for receiving a hub of a luer connector;

a blockage feature disposed within the cavity, the blockage feature configured as a cylindrical protrusion, the cylindrical protrusion being disposed on the top wall of the housing; and,

a fluid releasably retained within a depressible open cell foam structure disposed within the cavity,

characterized in that

the cylindrical protrusion further includes an upper portion and a lower portion, the upper portion having a diameter equal to the top wall, the lower portion having a diameter smaller than the upper portion, the lower portion configured to fluidly block the hub of the luer connector, wherein the depressible open cell foam structure is disposed against a bottom surface of the upper portion of the cylindrical protrusion, the depressible open cell foam structure having a hollow cylindrical shape configured to fit around the lower portion of the cylindrical protrusion, wherein a second depressible open cell foam is disposed between the upper portion of the cylindrical protrusion and the top wall of the cavity, the second depressible open cell foam structure releasably retaining a fluid.

2. The disinfection cap of claim 1, wherein said cavity extends essentially from an inner surface of said top wall toward said open bottom of said housing.

3. The disinfection cap of claim 1, wherein the cylindrical protrusion is non-removably disposed on the top wall of the housing.

4. The disinfection cap of claim 1, wherein the depressible open cell foam structure is disposed against the top wall, the depressible open cell foam structure having a hollow cylindrical shape configured to fit around the cylindrical protrusion.

5. The disinfection cap of claim 1, further including an at least one thread on an outer surface of the housing, said at least one thread being sufficient to interlock with a mating feature of said luer connector.

6. The disinfection cap of claim 5, wherein said hub is secured within said inner surface of said cavity by interlocking at least a portion of said at least one thread with a mating feature on said hub of said luer connector.

7. The disinfection cap of claim 1, wherein the inner surface of the cavity is secured by an interference fit with the hub of the luer connector.

8. The disinfection cap of claim 1, wherein the fluid is selected from a group consisting essentially of isopropyl alcohol, ethanol, 2-propanol, butanol, methylparaben, ethylparaben, propylparaben, propyl gallate, butylated hydroxyanisole (BHA), butylated hydroxytoluene, t-butyl-hydroquinone, chloroxylenol, chlorohexidine, chlorhexidine diacetate, chlorohexidine gluconate, povidone iodine, alcohol, dichlorobenzyl alcohol, dehydroacetic acid, hexetidine, triclosan, hydrogen peroxide, colloidal silver, benzethonium chloride, benzalkonium chloride, octenidine, antibiotic, and mixtures thereof.