

CLAIMS

1. A catheter system, comprising:
 - a needle comprising:
 - a proximal end;
 - a distal end; and
 - an opening disposed along the needle between the proximal end and the distal end of the needle, wherein the opening is configured to facilitate flashback visualization;
 - a catheter adapter body formed of a compliant material;
 - ;
 - an inner chamber disposed within the catheter adapter body;
 - a compression resistant septum comprising a distal end formed in the compliant material of the catheter adapter body, the compression resistant septum further comprising a proximal end, wherein the distal end of the compression resistant septum and the catheter adapter body are integrally formed of the same compliant material, the compression resistant septum disposed toward the proximal end of the catheter adapter body;
 - a lumen formed through the compression resistant; and
 - a compression cap coupled to the compression resistant septum, the compression cap configured to impart a radial compression force to the compression resistant septum such that the lumen narrows and seals when the needle is removed from the lumen.
2. The catheter system of claim 1, wherein the catheter adapter body is integrally formed from a compression set resistant elastomeric material.
3. The catheter system of claim 2, wherein the compression set resistant elastomeric material comprises one of a thermoplastic elastomer material, a liquid silicone rubber material, and a polyisoprene material.
4. The catheter system of claim 1, wherein the compression cap is a separate piece that is coupled to the compression resistant septum.

5. The catheter system of claim 4, wherein the compression cap is coupled to the compression resistant septum through an over-molding manufacturing process.
6. The catheter system of claim 1, further comprising:
one or more stabilization members coupled to the catheter adapter body and configured to stabilize the catheter adapter body with respect to a patient;
a port in fluid communication with the inner chamber and configured to receive an extension tube, the port comprising one of a Y-shaped port, a T-shaped port, a V-shaped port and a parallel-shaped port;
a catheter lumen coupled to and extending from the distal end of the catheter adapter body;
and
a catheter wedge disposed toward the distal end of the catheter adapter body and configured to guide the needle into the catheter lumen as the needle is inserted through the catheter adapter body.
7. A catheter device, comprising:
a catheter adapter body, comprising a distal end, a proximal end, and a lumen extending therethrough;
a catheter lumen extending from the distal end of the catheter adapter body;
a first compression resistant septum;
a second compression resistant septum disposed within the catheter adapter body and distal to the first compression resistant septum; and
a compression cap configured to impart a radial compression force to the first compression resistant septum and the second compression resistant septum.
8. The catheter device of claim 7, wherein the first compression resistant septum abuts the proximal end of the catheter adapter.
9. The catheter device of claim 7, wherein the second compression resistant septum is disposed within an inner chamber of the catheter adapter body.

10. The catheter device of claim 7, wherein the second compression resistant septum abuts the first compression resistant septum.
11. The catheter device of claim 7, wherein the first compression resistant septum comprises a first lumen and the second compression resistant septum comprises a second lumen.
12. The catheter device of claim 11, further comprising a needle extending through the first lumen and the second lumen, wherein the compression cap is configured to impart the radial compression force to the first compression resistant septum and the second compression resistant septum such that the first lumen and the second lumen narrow when the needle is removed from the first lumen and the second lumen.
13. A catheter system, comprising:
 - a needle comprising:
 - a proximal end;
 - a distal end; and
 - an opening disposed along the needle between the proximal end and the distal end of the needle, wherein the opening is configured to facilitate flashback visualization;
 - a catheter adapter body formed of a compliant material;
 - an inner chamber disposed within the catheter adapter body;
 - a compression resistant septum comprising a distal end formed in the compliant material of the catheter adapter body, the compression resistant septum further comprising a proximal end, wherein the distal end of the compression resistant septum and the catheter adapter body are integrally formed of the same compliant material, the compression resistant septum disposed toward the proximal end of the catheter adapter body;
 - a slit formed through the compression resistant septum; and

a compression cap coupled to the compression resistant septum, the compression cap configured to impart a radial compression force to the compression resistant septum such that the slit narrows and seals when the needle is removed from the lumen.

14. The catheter system of claim 13, wherein the catheter adapter body is integrally formed from a compression set resistant elastomeric material.
15. The catheter system of claim 14, wherein the compression set resistant elastomeric material comprises one of a thermoplastic elastomer material, a liquid silicone rubber material, and a polyisoprene material.
16. The catheter system of claim 13, wherein the compression cap is a separate piece that is coupled to the compression resistant septum.
17. The catheter system of claim 16, wherein the compression cap is coupled to the compression resistant septum through an over-molding manufacturing process.