CLAIMS

1. A vascular access device comprising:

a catheter having a proximal end and a distal end;

a catheter adapter having a distal end, a proximal end, an overall length extending from the distal end to the proximal end, an internal cavity, an upper portion, a lower portion and a tip region having a distal opening having a circumference through which the catheter extends, the catheter adapter being connected to the proximal end of the catheter;

an introducer needle extending through the catheter;

a needle hub connected to the proximal end of the introducer needle, wherein at least a portion of the catheter adapter is made from a first material and at least a portion of the tip is made from a second material that is more flexible than the first material;

a wing element; and

at least one connecting channel formed between the wing element and the tip of the catheter adapter.

2. The vascular access device of claim 1, wherein the wing element is attached to the catheter adapter and extending radially outward from the catheter adapter, wherein the wing element is made from the second material.

3. The vascular access device of claim 2, wherein the at least one connecting channel formed between the wing element and the portion of the tip made from the second material.

4. The vascular access device of claim 1, wherein the first material is a rigid polymeric material selected from one or more of a polyester, co-polyester, polycarbonate, polyethylene, polystyrene or polypropylene, and the second material is a flexible polymeric material selected from one or more of a thermoplastic elastomer, thermoplastic polyurethane, thermoplastic vulcanizate elastomer, olefin block copolymers, polyisoprene, or silicone.

5. The vascular access device of claim 3, wherein the at least one connecting channel is formed on an outside surface or inside surface of the catheter adapter.

6. The vascular access device of claim 1, wherein the overall length of the catheter adapter is substantially equivalent at the upper portion and the lower portion, and the distal opening has an internal curvature defining a tapered region, and wherein the internal curvature of the lower portion of the distal opening defines a chamfer.

7. The vascular access device of claim 3, wherein the wing element comprises a first wing member extending from one side of the catheter adapter.

8. The vascular access device of claim 7, wherein the wing element comprises a second wing member extending opposite the one side of the catheter adapter, and the first wing member, the second wing member and the portion of the tip made from the second material are integrally molded.

9. The vascular access device of claim 1, wherein the tip includes a flexible, kink resistant extension extending from the distal opening to provide support for the catheter.

10. The vascular access device of claim 1, wherein the distal opening has an internal curvature defining a tapered region wherein the tapered region supports the catheter at the distal opening.

11. The vascular access device of claim 1, wherein at least a majority portion of the catheter adapter is made from a first material and at least a portion of the tip is made from a second material that is more flexible than the first material.

12. A vascular access device comprising:

a catheter having a proximal end and a distal end;

a catheter adapter having a distal end, a proximal end, an overall length extending from the distal end to the proximal end, an internal cavity, an upper portion, a lower portion and a tip

having a distal opening having a circumference through which the catheter extends, the catheter adapter being connected to the proximal end of the catheter;

an introducer needle having a distal end and a proximal end;

a needle hub connected to the proximal end of the introducer needle;

a flexible, kink resistant extension extending from the distal opening of the tip to support the catheter adjacent the distal opening;

a wing element; and

at least one connecting channel formed between the wing element and the tip of the catheter adapter.

13. The vascular access device of claim 12, wherein the catheter adapter is made from a first material and the flexible, kink resistant extension is made from a second material that is softer than the first material.

14. The vascular access device of claim 12, wherein the wing element attached to the catheter adapter and extending radially outward from the catheter adapter, wherein the catheter adapter is made from a first material and the wing element and the flexible, kink resistant extension are made from a second material, wherein the first material is more rigid than the second material.

15. The vascular access device of claim 13, wherein the first material is a rigid polymeric material selected from one or more of a polyester, co-polyester, polycarbonate, polyethylene, polystyrene or polypropylene, and the second material is a flexible polymeric material.

16. The vascular access device of claim 15, wherein the flexible polymeric material is selected from one or more of a thermoplastic elastomer (TPE), thermoplastic polyurethane (TPU), thermoplastic vulcanizate elastomer (TPV), olefin block copolymers (OBC), polyisoprene, or silicone.

17. The vascular access device of claim 14, wherein the wing element comprises a first wing member extending from one side the catheter adapter.

18. The vascular access device of claim 17, further comprising a second wing member extending opposite the one side of the catheter adapter.

19. The vascular access device of claim 12, wherein the distal opening has an internal curvature defining a tapered region wherein the tapered region supports the catheter at the distal opening.