

CLAIMS

We claim:

1. A catheter system, comprising:
 - a catheter adapter, comprising a distal end, a proximal end, and a wall forming a lumen, wherein the wall comprises a slot;
 - a catheter extending distally from the distal end of the catheter adapter;
 - a needle assembly coupled to the catheter adapter, the needle assembly comprising:
 - an introducer needle, comprising a distal tip and a bump feature, wherein the distal tip is disposed distal to the catheter in a first position;
 - a housing, comprising:
 - a distal opening;
 - a proximal opening, wherein a diameter of the proximal opening is less than an outer diameter of the bump feature; and
 - a side opening, wherein a proximal end of the side opening is distal to a proximal end of the slot; and
 - a spring clip disposed within the housing, wherein the spring clip comprises a first end and a second end, wherein the first end comprises a U-shaped portion partially disposed within the slot, wherein the proximal end of the side opening is disposed within the U-shaped portion to bias the U-shaped portion outwardly, wherein the U-shaped portion does not contact the introducer needle, wherein in response to withdrawal of the distal tip proximally from the first position to a second position, the bump feature contacts the proximal opening, wherein in response to withdrawal of the distal tip proximally from the second position to a third position, the housing and the proximal end of the side opening

move proximally, the U-shaped portion is released and moves inwardly, and the spring clip blocks the distal opening.

2. The catheter system of claim 1, wherein the first end of the spring clip abuts the proximal end of the side opening.
3. The catheter system of claim 1, wherein the first end of the spring clip comprises a shield portion, wherein the shield portion is generally L-shaped and extends from the U-shaped portion, wherein in response to withdrawal of the distal tip proximally from the second position to a third position, the shield portion blocks the distal opening.
4. The catheter system of claim 3, wherein the first end of the spring clip further comprises a lip extending proximally from the shield portion, wherein the shield portion is disposed in between the lip and the U-shaped portion, wherein in response to withdrawal of the distal tip proximally from the second position to the third position, the distal tip is disposed between the lip and the U-shaped portion.
5. The catheter system of claim 1, wherein the spring clip does not contact the introducer needle.
6. The catheter system of claim 1, wherein the spring clip comprises an opening, wherein the introducer needle extends through the opening, wherein the spring clip is spaced apart from opening.
7. The catheter system of claim 1, wherein the spring clip is generally U-shaped between the first end and the second end.
8. The catheter system of claim 1, wherein the housing comprises a groove, wherein the second end of the spring clip is disposed within the groove, wherein in

response to withdrawal of the distal tip proximally from the second position to the third position, the housing and the proximal end of the side opening move proximally and the second end moves closer to a distal end of the groove.