

CLAIMS

What is claimed:

1. An intravenous catheter device comprising:
a catheter adapter;
a catheter that extends distally from the catheter adapter; and
a probe assembly that couples to the catheter adapter, the probe assembly including a probe that selectively extends into the catheter, the probe having a shaped portion for causing a distal end of the catheter to be repositioned as the probe is selectively extended into the catheter.
2. The intravenous catheter device of claim 1, wherein the probe assembly includes a probe actuator by which the probe is selectively extended into the catheter.
3. The intravenous catheter device of claim 2, wherein the probe actuator is configured to advance axially, rotate or both advance axially and rotate to thereby cause the probe to advance axially, rotate or both advance axially and rotate within the catheter.
4. The intravenous catheter device of claim 1, wherein the probe assembly is one of integrated into or selectively coupled to the catheter adapter.
5. The intravenous catheter device of claim 1, wherein the probe has a proximal portion and a distal portion, and wherein the shaped portion is positioned between the proximal portion and the distal portion.

6. The intravenous catheter device of claim 5, wherein the shaped portion encompasses the distal portion of the probe.

7. The intravenous catheter device of claim 5, wherein the distal portion forms a coil or an expanded cross-sectional area.

8. The intravenous catheter device of claim 1, wherein the shaped portion has a v shape or a w shape.

9. The intravenous catheter device of claim 1, wherein the shaped portion is configured to cause the distal end of the catheter to be repositioned when a distal end of the probe is positioned proximal to, at or distal to the distal end of the catheter.

10. The intravenous catheter device of claim 1, wherein the shaped portion comprises a spiral.

11. The intravenous catheter device of claim 1, wherein the probe includes a proximal portion and the shaped portion is distal to the proximal portion, and wherein the shaped portion includes a first length that deviates from a longitudinal axis of the proximal portion by a first angle and a second length that deviates from the longitudinal axis of the proximal portion by a second angle different from the first angle.

12. The intravenous catheter device of claim 1, wherein the probe is one of a wire or a tube.

13. The intravenous catheter device of claim 1, wherein the probe assembly includes a probe housing within which the probe is housed and a probe actuator positioned at least partially outside of the probe housing, the probe actuator interfacing with the probe to cause the probe to be selectively advanced out from the probe housing and into the catheter.

14. The intravenous catheter device of claim 13, wherein the probe actuator also interfaces with the probe to cause the probe to rotate within the catheter.

15. A probe assembly for use with a catheter of an intravenous catheter device, the probe comprising:

a probe housing;

a probe actuator coupled to the probe housing; and

a probe that is housed within the probe housing, the probe actuator being configured to selectively advance the probe from the probe housing and into the catheter of the intravenous catheter device, wherein the probe comprises:

a proximal portion;

a distal end; and

a shaped portion positioned between the proximal portion and the distal end, the shaped portion being configured to reposition a distal end of the catheter as the probe is selectively advanced within the catheter.

16. The probe assembly of claim 15, wherein the shaped portion includes a first length that deviates from a longitudinal axis of the proximal portion by a first angle and a second length that deviates from the longitudinal axis of the proximal portion by a second angle different from the first angle.

17. The probe assembly of claim 15, wherein the probe actuator is configured to selectively rotate the probe within the catheter.

18. The probe assembly of claim 15, wherein the shaped portion of the probe encompasses the distal end of the probe.

19. A method of repositioning a distal end of a catheter within a patient's vasculature, the method comprising:

providing an intravenous catheter device having a catheter adapter, a catheter that extends distally from the catheter adapter and a probe assembly that couples to the catheter adapter, the probe assembly including a probe that selectively extends into the catheter, the probe having a shaped portion.

inserting the catheter into a patient's vasculature; and

while the catheter is inserted into the patient's vasculature, advancing the probe within the catheter to cause the shaped portion of the probe to be positioned proximate to a distal end of the catheter, the shaped portion causing the distal end of the catheter to be repositioned.

20. The method of claim 19, further comprising:

advancing the probe to cause a distal end of the probe to extend distally beyond the distal end of the catheter, the distal end of the probe being configured to cause an occlusion or obstruction to be removed from the distal end of the catheter.