

WHAT IS CLAIMED IS:

1. A shunt comprising a central flow portion configured to:
fit at least partially within an opening in a tissue wall, wherein the tissue wall is situated between a first anatomical chamber and a second anatomical chamber, and the opening represents a blood flow path between the first anatomical chamber to the second anatomical chamber;
maintain the blood flow path from the first anatomical chamber to the second anatomical chamber;
prevent in-growth of tissue within the opening; and
expand in response to expansion of the tissue wall.
2. The shunt of claim 1, further comprising one or more anchoring arms extending from the central flow portion, the one or more anchoring arms configured to anchor to the tissue wall.
3. The shunt of claim 2, wherein each of the one or more anchoring arms includes an anchoring mechanism at an end portion.
4. The shunt of claim 3, wherein the anchoring mechanism comprises one or more of a group including a barb, a hook, a nail, and a screw.
5. The shunt of any of claims 1-4, wherein the central flow portion comprises a network of one or more lines, and each of the one or more lines is configured to interweave with itself or at least one other line of the one or more lines.
6. The shunt of any of claims 1-5, wherein the central flow portion comprises a network of chains, and each chain of the network of chains is configured to interlock with at least one other chain of the network of chains.
7. The shunt of any of claims 1-6, wherein the central flow portion comprises a coiled line.
8. The shunt of claim 7, wherein the central flow portion has a fixed diameter approximately equal to a diameter of the opening.

9. The shunt of claim 7 or claim 8, wherein:
a first portion of the central flow portion is configured to be situated within the opening;
a second portion of the central flow portion is configured to extend into the first anatomical chamber;
the first portion has a first diameter and the second portion has a second diameter; and
the second diameter is greater than the first diameter.
10. The shunt of claim 9, wherein the second portion is configured to prevent dislodging of the central flow portion.
11. The shunt of any of claims 1-10, wherein the central flow portion comprises one or more rings, each of the one or more rings having an elliptical shape to approximate a shape of the opening.
12. The shunt of claim 11, wherein at least one of the one or more rings is coated in a polymer configured to prevent tissue growth.
13. The shunt of claim 11 or claim 12, wherein:
each of the one or more rings is composed of a shape-memory material;
each of the one or more rings is configured to naturally assume a first diameter;
each of the one or more rings is configured to be compressed to a second diameter that is lesser than the first diameter to fit into the opening; and
each of the one or more rings is configured to press against the tissue wall to hold itself in place.
14. The shunt of any of claims 11-13, wherein each of the one or more rings comprises an anchoring mechanism configured to anchor to the tissue wall.
15. The shunt of claim 14, wherein the anchoring mechanism is at least one of a group comprising a spike, a screw, a nail, a barb, and a hook.
16. The shunt of any of claims 11-15, wherein each of the one or more rings is connected by a cloth.
17. The shunt of any of claims 1-16, wherein:
the central flow portion comprises two or more telescoping members;

a first telescoping member of the two or more telescoping members has a first diameter;

a second telescoping member of the two or more telescoping members has a second diameter that is lesser than the first diameter; and

the second telescoping member is configured to fit at least partially within a central opening of the first telescoping member.

18. The shunt of claim 17, wherein the second telescoping member is configured to move with respect to the first telescoping member to adjust an amount of overlap between the first telescoping member and the second telescoping member.

19. The shunt of claim 18, wherein the second telescoping member is configured to decrease the amount of overlap between the first telescoping member and the second telescoping member in response to expansion of the tissue wall.

20. The shunt of claim 19, wherein the first telescoping member and the second telescoping member comprise one or more connection mechanisms configured to allow one-way movement of the second telescoping member.

21. The shunt of any of claims 1-20, wherein the central flow portion comprises a sheet of cloth configured to extend from the first anatomical chamber to the second anatomical chamber, and stretch in response to expansion of the tissue wall.

22. The shunt of claim 21, wherein the sheet of cloth is configured to form a cylindrical shape in the opening.

23. The shunt of claim 21 or claim 22, further comprising one or more anchoring mechanisms configured to anchor the sheet of cloth to a first side of the tissue wall.

24. The shunt of claim 23, wherein the sheet of cloth forms a sac, is configured to at least partially cover the opening, and has one or more holes to allow blood flow through the sheet of cloth.

25. A method comprising:

creating an opening in a tissue wall, wherein:

the tissue wall is situated between a first anatomical chamber
and a second anatomical chamber; and

the opening represents a blood flow path between the first anatomical chamber to the second anatomical chamber; and placing a shunt at the opening, the shunt comprising a central flow portion configured to:

fit at least partially within the opening in the tissue wall;
maintain the blood flow path from the first anatomical chamber to the second anatomical chamber;
prevent in-growth of tissue within the opening; and
expand in response to expansion of the tissue wall.

26. The method of claim 25, wherein the shunt further comprises one or more anchoring arms extending from the central flow portion, the one or more anchoring arms configured to anchor to the tissue wall.

27. The method of claim 25 or claim 26, wherein the central flow portion comprises a network of one or more lines, and each of the one or more lines is configured to interweave with itself or at least one other line of the one or more lines.

28. The method of any of claims 25-27, wherein the central flow portion comprises a network of chains, and each chain of the network of chains is configured to interlock with at least one other chain of the network of chains.

29. The method of any of claims 25-28, wherein the central flow portion comprises a coiled line.

30. The method of any of claims 25-29, wherein the central flow portion comprises one or more rings, each of the one or more rings having an elliptical shape to approximate a shape of the opening.

31. The method of any of claims 25-30, wherein:
the central flow portion comprises two or more telescoping members;
a first telescoping member of the two or more telescoping members has a first diameter;
a second telescoping member of the two or more telescoping members has a second diameter that is lesser than the first diameter; and

the second telescoping member is configured to fit at least partially within a central opening of the first telescoping member.

32. The method of any of claims 25-31, wherein the central flow portion comprises a sheet of cloth configured to extend from the first anatomical chamber to the second anatomical chamber, and stretch in response to expansion of the tissue wall.