CLAIMS

What is claimed is:

1. A method of increasing flow through a wall of a stent, comprising:

expanding the stent which defines a lumen therethrough from a delivery configuration into a deployed configuration;

introducing an expansion device into the lumen and through an open cell defined along the wall of the stent; and

enlarging the open cell from a first expanded configuration into a second enlarged configuration, wherein the stent is comprised of a bioresorbable polymer characterized by a molecular weight from 259,000 g/mol to 2,120,000 g/mol and a crystallinity from 20% to 40%.

2. The method of claim 1 further comprising intravascularly deploying the stent within a vessel lumen of a patient body.

3. The method of claim 2 further comprising intravascularly deploying the stent at a junction of the vessel lumen and a side branch extending from the vessel lumen.

4. The method of claim 3 wherein introducing an expansion device comprises positioning a balloon catheter within the lumen and open cell such that the balloon catheter extends at least partially into the side branch.

5. The method of claim 1 wherein expanding the stent comprises expanding the stent via a balloon catheter.

6. The method of claim 1 wherein expanding the stent comprises allowing the stent to self-expand.

7. The method of claim 1 wherein introducing an expansion device comprises positioning a balloon catheter into the lumen and within the open cell.

8. The method of claim 1 wherein enlarging the open cell comprises enlarging the open cell to a diameter of 2.0 mm to 4.5 mm.

9. The method of claim 1 wherein enlarging the open cell comprises expanding the open cell into a shape selected from the group consisting of a hole, flap, window, slot, cell structure, and combinations thereof.

10. The method of claim 1 wherein enlarging the open cell comprises elongating one or more struts of the stent from 2% to 120% without cracking, fracturing, or failing.

11. The method of claim 1 wherein enlarging the open cell comprises stretching a strain relief area defined along one or more struts of the stent.

12. The method of claim 1 wherein the bioresorbable polymer is further characterized by a crystallinity from 27% to 35%.

13. The method of claim 1 wherein the bioresorbable polymer is further characterized by crystalline regions and amorphous regions.

14. The method of claim 13 wherein the crystalline regions are isotropic.

15. The method of claim 13 wherein the crystalline regions are longitudinally oriented.

16. The method of claim 13 wherein the crystalline regions are circumferentially oriented.

17. The method of claim 1 wherein physical properties of the bioresorbable polymer are isotropic.

18. The method of claim 1 wherein the bioresorbable polymer is further characterized by a solvent content less than 100 ppm.

19. The method of claim 1 wherein the bioresorbable polymer is further characterized by an intrinsic viscosity from 4.3 dL/g to 8.4 dL/g.

20. The method of claim 1 wherein the bioresorbable polymer is further characterized by an elastic modulus from 1000 MPa to 3000 MPa.

21. The method of claim 1 wherein an applied load at failure of the stent is from 100 N to 300 N.

22. The method of claim 1 wherein the bioresorbable polymer is configured to curve up to 180° about a 1 cm curvature radius without fracture formation or failure.

23. The method of claim 1 wherein the stent is characterized by a radial strength of at least about 10 N per 1 cm length at about 20% compression.

24. The method of claim 23 wherein the stent is characterized by a radial strength of 0.1 N to 5 N per 1 cm at 20% compression.

25. The method of claim 23 wherein the stent is configured to withstand a strain of at least 150% without failure.

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What is claimed is:

1. A method of increasing flow through a wall of a stent, comprising:

expanding the stent which defines a lumen therethrough from a delivery configuration into a deployed configuration;

introducing an expansion device into the lumen and through an open cell defined along the wall of the stent; and

enlarging the open cell from a first expanded configuration into a second enlarged configuration, wherein the stent is comprised of a bioresorbable polymer characterized by a molecular weight from 259,000 g/mol to 2,120,000 g/mol and a crystallinity from 20% to 40%.

2. The method of claim 1 wherein expanding the stent comprises expanding the stent via a balloon catheter.

3. The method of claim 1 wherein expanding the stent comprises allowing the stent to self-expand.

4. The method of claim 1 wherein introducing an expansion device comprises positioning a balloon catheter into the lumen and within the open cell.

5. The method of claim 1 wherein enlarging the open cell comprises enlarging the open cell to a diameter of 2.0 mm to 4.5 mm.

6. The method of claim 1 wherein enlarging the open cell comprises expanding the open cell into a shape selected from the group consisting of a hole, flap, window, slot, cell structure, and combinations thereof.

7. The method of claim 1 wherein enlarging the open cell comprises elongating one or more struts of the stent from 2% to 120% without cracking, fracturing, or failing.

8. The method of claim 1 wherein enlarging the open cell comprises stretching a strain relief area defined along one or more struts of the stent.

9. The method of claim 1 wherein the bioresorbable polymer is further characterized by a crystallinity from 27% to 35%.

10. The method of claim 1 wherein the bioresorbable polymer is further characterized by crystalline regions and amorphous regions.

11. The method of claim 10 wherein the crystalline regions are isotropic.

12. The method of claim 10 wherein the crystalline regions are longitudinally oriented.

13. The method of claim 10 wherein the crystalline regions are circumferentially oriented.

14. The method of claim 1 wherein physical properties of the bioresorbable polymer are isotropic.

15. The method of claim 1 wherein the bioresorbable polymer is further characterized by a solvent content less than 100 ppm.

16. The method of claim 1 wherein the bioresorbable polymer is further characterized by an intrinsic viscosity from 4.3 dL/g to 8.4 dL/g.

17. The method of claim 1 wherein the bioresorbable polymer is further characterized by an elastic modulus from 1000 MPa to 3000 MPa.

18. The method of claim 1 wherein an applied load at failure of the stent is from 100 N to 300 N.

19. The method of claim 1 wherein the bioresorbable polymer is configured to curve up to 180° about a 1 cm curvature radius without fracture formation or failure.

20. The method of claim 1 wherein the stent is characterized by a radial strength of at least about 10 N per 1 cm length at about 20% compression.

21. The method of claim 20 wherein the stent is characterized by a radial strength of 0.1 N to 5 N per 1 cm at 20% compression.

22. The method of claim 20 wherein the stent is configured to withstand a strain of at least 150% without failure.