CLAIMS

1. A gastric residence structure comprising:

a loadable polymeric component;

an elastic polymeric component; and

a separate linker component, said linker connecting the loadable polymeric component with the elastic polymeric component;

wherein the gastric residence structure is configured to be folded and physically constrained during administration and is configured to assume an open retention shape upon removal of a constraint,

wherein change between the folded shape and the open retention shape is mediated by the elastic polymeric component that undergoes elastic deformation when the residence structure is in the folded shape and recoils when the gastric residence structure assumes the open retention shape, and

wherein said linker degrades, dissolves, disassociates, or mechanically weakens in a gastric environment which results in loss of retention shape integrity and passage out of a gastric cavity.

2. The gastric residence structure of claim 1, wherein the loadable polymeric component comprises at least about 60 wt% of the total structure weight.

3. The gastric residence structure of claim 1, wherein the gastric residence structure has a folding force of at least about 0.2 N.

4. The gastric residence structure of claim 1, wherein the residence structure has an open cross-sectional dimension of at least about 2 cm.

5. The gastric residence structure of claim 1, wherein the residence structure is configured such that it is retained in the gastric cavity for at least about 24 hours.

6. The gastric residence structure of claim 1, wherein the loadable polymeric component comprises an active substance.

7. The gastric residence structure of claim 6, wherein the gastric residence structure is configured such that the active substance is released from the loadable polymeric component at a particular initial average rate as determined over the first 24 hours of release, and wherein the active substance is released at an average rate of at least about 1% of the initial average rate over a 24 hour period after the first 24 hours of release.

8. The gastric residence structure of claim 1, wherein the open retention shape is a multi-armed star shape.

9. The gastric residence structure of claim 1, wherein the elastic polymeric component comprises a polymer selected from the group consisting of polyesters, polyethers, polysiloxanes, polyamides, polyacrylates, polymethacrylates, polyanhydrides, and polyurethanes.

10. The gastric residence structure of claim 1, wherein the loadable polymeric component comprises polycaprolactone (PCL), poly(ethylene-co-vinyl acetate), or polyethylene glycol (PEG).

11. The gastric residence structure of claim 1, wherein the folded shape has a convex hull at least about 10% less than a convex hull of the open retention shape.

12. The gastric residence structure of claim 1, wherein the folded shape has a largest cross-sectional dimension at least about 10% less than a largest cross-sectional dimension of the open retention shape.

13. A method for delivering a residence structure, comprising: administering to a subject a containing structure containing a gastric residence structure as in claim 6.

14. The method of claim 13, wherein the subject is a human.

15. A gastric residence structure comprising:

a plurality of loadable polymeric components; and

a central elastic polymeric component;

wherein the plurality of polymeric components are each connected to the central elastic polymeric component via a separate linker component,

wherein the gastric residence structure is configured to be folded and physically constrained during administration and is configured to assume an open retention shape upon removal of a constraint,

wherein change between the folded shape and the open retention shape is mediated by the elastic polymeric component that undergoes elastic deformation when the residence structure is in the folded shape and recoils when the gastric residence structure assumes the open retention shape, and

wherein said linker degrades, dissolves, disassociates, or mechanically weakens in a gastric environment which results in loss of retention shape integrity and passage out of a gastric cavity.

16. The gastric residence structure of claim 15, wherein the plurality of loadable polymeric components comprise at least about 60 wt% of the total structure weight.

17. The gastric residence structure of claim 15, wherein the gastric residence structure has a folding force of at least about 0.2 N.

18. The gastric residence structure of claim 15, wherein the residence structure has an open cross-sectional dimension of at least about 2 cm.

19. The gastric residence structure of claim 15, wherein the residence structure is configured such that it is retained in the gastric cavity for at least about 24 hours.

20. The gastric residence structure of claim 15, wherein one or more of the plurality of loadable polymeric components comprise an active substance.

21. The gastric residence structure of claim 20, wherein the gastric residence structure is configured such that the active substance is released from the plurality of loadable polymeric components at a particular initial average rate as determined over the first 24 hours of release; and

wherein the active substance is released at an average rate of at least about 1% of the initial average rate over a 24 hour period after the first 24 hours of release.

22. The gastric residence structure of claim 15, wherein the open retention shape is a multi-armed star shape.

23. The gastric residence structure of claim 15, wherein the central elastic polymeric component comprises a polymer selected from the group consisting of polyesters, polyethers, polysiloxanes, polyamides, polyacrylates, polymethacrylates, polyanhydrides, and polyurethanes.

24. The gastric residence structure of claim 15, wherein the plurality of loadable polymeric components comprise polycaprolactone (PCL), poly(ethylene-co-vinyl acetate), or polyethylene glycol (PEG).

25. The gastric residence structure of claim 15, wherein the folded shape has a convex hull at least about 10% less than a convex hull of the open retention shape.

26. The gastric residence structure of claim 15, wherein the folded shape has a largest cross-sectional dimension at least about 10% less than a largest cross-sectional dimension of the open retention shape.

27. A method for delivering a residence structure, comprising: administering, to a subject, a containing structure containing a gastric residence structure as in claim 147.

28. The method of claim 27, wherein the subject is a human.

29. A gastric residence structure comprising:

at least three loadable polymeric components; and

a central elastic polymeric component;

wherein the at least three loadable polymeric components are connected to the central elastic polymeric component via separate linker components,

wherein the gastric residence structure is configured to be folded and physically constrained during administration and is configured to assume an open retention shape upon removal of a constraint,

wherein change between the folded shape and the open retention shape is mediated by the elastic polymeric component that undergoes elastic deformation when the residence structure is in the folded shape and recoils when the gastric residence structure assumes the open retention shape, and

wherein one or more of said separate linker components degrades, dissolves, disassociates, or mechanically weakens in a gastric environment which results in loss of retention shape and passage out of a gastric cavity.

30. The gastric residence structure of claim 29, wherein the at least three loadable polymeric components comprise at least about 60 wt% of the total structure weight.

31. The gastric residence structure of claim 29, wherein the gastric residence structure has a folding force of at least about 0.2 N.

32. The gastric residence structure of claim 29, wherein the residence structure has an open cross-sectional dimension of at least about 2 cm.

33. The gastric residence structure of claim 29, wherein the residence structure is configured such that it is retained in the gastric cavity for at least about 24 hours.

34. The gastric residence structure of claim 29, wherein one or more of the at least three loadable polymeric components comprise an active substance.

35. The gastric residence structure of claim 34, wherein the gastric residence structure is configured such that the active substance is released from the at least three loadable polymeric components at a particular initial average rate as determined over the first 24 hours of release, and

wherein the active substance is released at an average rate of at least about 1% of the initial average rate over a 24 hour period after the first 24 hours of release.

36. The gastric residence structure of claim 29, wherein the open retention shape is a multi-armed star shape.

37. The gastric residence structure of claim 29, wherein the central elastic polymeric component comprises a polymer selected from the group consisting of polyesters, polyethers, polysiloxanes, polyamides, polyacrylates, polymethacrylates, polyanhydrides, and polyurethanes.

38. The gastric residence structure of claim 29, wherein the at least three loadable polymeric components comprise polycaprolactone (PCL), poly(ethylene-co-vinyl acetate), or polyethylene glycol (PEG).

39. The gastric residence structure of claim 29, wherein the folded shape has a convex hull at least about 10% less than a convex hull of the open retention shape.

40. The gastric residence structure of claim 29, wherein the folded shape has a largest cross-sectional dimension at least about 10% less than a largest cross-sectional dimension of the open retention shape.

41. A method for delivering a residence structure, comprising: administering, to a subject, a containing structure containing a gastric residence structure as in claim 34.

42. The method of claim 41, wherein the subject is a human.