CLAIMS

1. A medical device for use with a filler material for occupying a space within a patient's body, the medical device comprising:

a device assembly comprising an enclosed reservoir, a fluid transfer member, and a release section comprising an elongated structure extending into the reservoir, where a lumen of the elongated structure provides a fluid path out of the enclosed reservoir;

where the enclosed reservoir is fluid impermeable;

the fluid transfer member is configured to permit delivery of the filler material into the enclosed reservoir to expand the device assembly towards an active profile;

where a release material is located within the reservoir and compresses an exterior of the elongated structure to prevent fluid flow through the fluid path; and

where the elongated structure separates the release material from the fluid path such that the release material remains entirely exterior to the fluid path and is physically separated from an environment within the patient's body until reduction of the structural integrity of the release material opens the elongated structure to open the fluid.

2. The device of claim 1, further comprising a swellable filler material in the enclosed reservoir.

3. The device of claim 2, where the swellable filler material comprises a hydrogel.

4. A medical device for occupying a gastric space within a patient's body, the medical device comprising:

a device assembly comprising a skin, and a fluid transfer member, the skin forming a perimeter of the device assembly defining a reservoir therein, where the skin is liquid impermeable and where the fluid transfer member comprises a flexible elongate fluid path that permits delivery of fluids into the reservoir;

where the skin forms an invaginated section having a passage extending within the reservoir;

a release material located within the reservoir and disposed entirely exterior to the passage of the invaginated section where the release material compresses a portion of the invaginated section to seal the passage such that the release material is physically separated from the gastric space until a reduction in the structural integrity of the release material causes the passage to open to an exterior of the device assembly;

the device assembly having a deployment profile and an active profile, where the deployment profile is smaller than the active profile and permits positioning of the device assembly within the patient's body;

where the fluid transfer member is configured to deliver a filler into the reservoir to cause the device assembly to expand from the deployment profile to the active profile such that the device assembly occupies at least a portion of the gastric space within the patient's body; and

an elongate conduit having a proximal end and a device end, where the device end is flexible to accommodate swallowing by the patient, the elongate conduit configured to deliver fluid through the fluid transfer member, where the device end of the conduit is removably located within the flexible elongate fluid path, such that upon removal of the conduit a flow resistance of the flexible elongate fluid path is sufficient to prevent the filler material from escaping.

5. The device of claim 4, where the conduit comprises a slidable fit with the sealable path.

6. The device of claim 4, where the portion of the invaginated section forming the passage is mechanically bound by the release material.

7. The device of claim 6, where the device assembly can be reduced to at least 5ml volume when in the deployment profile.

8. The device of claim 6, where the release material is mechanically coupled to the portion of the invaginated section forming the passage.

9. The device of claim 1, where the fluid transfer member comprises both a sealable fluid path and a removable conduit located therein, the conduit having a proximal end and a device end, where a length of the conduit permits delivery of the filler material into the reservoir when the device assembly is located within the patient's body and the proximal end is positioned outside of the patient's body, where the conduit permits delivery of the filler material into the reservoir; and

wherein the sealable fluid path is configured to seal to prevent flow of the filler material therethrough upon removal of the conduit.

10. The device of claim 9, where the sealable fluid path is configured to seal when the device assembly assumes the active profile and the conduit disengages from the sealable fluid path.

11. The device of claim 9, where the conduit comprises a slidable fit with the sealable fluid path.

12. A medical device for occupying a space within a patient's body, the medical device comprising:

a device assembly having a deployment profile and an active profile, where the deployment profile is smaller than the active profile and permits deployment of the device assembly within the space in the patient's body;

the device assembly comprising:

an enclosed reservoir configured to be fluid impermeable;

a fluid transfer member configured to permit delivery of a filler material into the enclosed reservoir;

a release section that provides a fluid path out of the enclosed reservoir; and

a release material that is located entirely exterior to a fluid path of the release section and compresses a portion of the release section to prevent fluid flow through the fluid path, such that the release material is physically separated from an environment within the patient's body by the enclosed reservoir and remains physically separated from the environment within the patient's body until a reduction of a structural integrity of the release material allows opening of the fluid path allowing release of the filler material from the enclosed reservoir.

13. The device of claim 12, where the fluid transfer member comprises a sealable fluid path and a removable conduit located therein, the removable conduit having a proximal end and a device end, where a length of the removable conduit permits delivery of the filler material into the enclosed reservoir when the device assembly is located within the patient's body and the proximal end is positioned outside of the patient's body, where the removable conduit permits delivery of the filler material into the reservoir to cause the device assembly to expand from the deployment profile to the active profile such that the device assembly occupies at least a portion of the space within the patient's body; and

wherein the sealable fluid path is configured to seal to prevent flow of the filler material therethrough upon removal of the removable conduit.

14. The device of claim 13, where the sealable fluid path is configured to seal when the device assembly assumes the active profile and the removable conduit disengages from the sealable fluid path.

15. The device of claim 13, where the removable conduit comprises a slidable fit with the sealable fluid path.

16. The device of claim 13, further comprising a swellable filler material in the enclosed reservoir.

17. The device of claim 16, where the swellable filler material comprises a hydrogel.

1. A medical device for occupying a gastric space within a patient's body, the medical device comprising:

a device assembly comprising a skin, a fluid transfer member, and a release material, the skin forming a perimeter of the device assembly defining a reservoir therein, where the release material is coupled to at least a portion of the skin such that the skin and release material are coupled to create a physical barrier about the reservoir, where the skin is liquid impermeable and where the fluid transfer member permits delivery of fluids into the reservoir through the physical barrier;

the device assembly having a deployment profile and an active profile, where the deployment profile is smaller than the active profile and permits deployment of the device assembly within a gastric space in the patient's body;

a filler material retained within the reservoir by the physical barrier and configured to expand as fluid is delivered through the fluid transfer member to cause the device assembly to expand from the deployment profile to the active profile such that the device assembly occupies at least a portion of the gastric space within the patient's body; and

wherein exposure of the release material to an exogenous substance opens at least one path in the physical barrier such that the filler material can interact with fluids of the patient's body and/or pass into the patient's body resulting in reduction of a size of the deployment profile.

2. The device of claim 1, where the fluid transfer member further comprises a sealable fluid path.

3. The device of claim 2, where the fluid transfer member further comprises a conduit having a proximal end and a device end, where the device end of the conduit is flexible to accommodate swallowing by the patient and the conduit is coupled to the sealable fluid path, where a length of the conduit permits delivery of fluid into the reservoir when the device assembly is located within the patient's body and the proximal end is positioned outside of the patient's body

4. The device of claim 3, where the conduit is detachable from the sealable fluid path when pulled away from the sealable path, wherein the sealable path is configured to form an effective seal upon removal of the conduit.

5. The device of claim 3, where the sealable fluid path is configured to collapse to be substantially sealed when the device assembly assumes the active profile and the conduit is detached from the sealable fluid path.

6. The device of claim 3, where the conduit comprises a slidable fit with the sealable fluid path.

7. The device of claim 3, where the filler material comprises a semi-solid consistency when expanded to mimic natural substances within a gastric space.

8. The device of claim 1, further comprising an elongate conduit having a proximal end and a device end, where the device end is flexible to accommodate swallowing by the patient, where the sealable fluid path comprises a flexible elongate tunnel extending from the reservoir to an exterior of the skin, where the device end of the conduit is removably located within the flexible elongate tunnel structure, such that upon removal of the conduit the flexible elongate tunnel structure increases a resistance to movement of substances therethrough to form a seal.

9. The device of claim 1, where the fluid transfer member further comprises a wick element where a first end of the wick element is in fluid communication with the reservoir and a second end of the wick element extends out of the sealable fluid path such that when positioned within the stomach of the patient, the wick drawing fluid from the stomach of the patient into the reservoir.

10. The device of claim 9, where the sealable fluid path is configured to compress the wick element to seal the sealable fluid path as the device assembly assumes the active profile.

11. The device of claim 9, where the wick element remains within the reservoir as the device assembly assumes the active profile such that the sealable fluid path seals as the filler material expands within the reservoir.

12. The device of claim 1, where the skin comprises at least one opening and where each of the at least one openings are covered by the release material.

13. The device of claim 12, where the release material comprises a plurality of discrete portions covering a plurality of openings in the skin

14. The device of claim 12, where at least a portion of the release material comprises a shape that approximates a shape of the deployment profile, reducing the amount of deformation of the release material.

15. The device of claim 1, where a portion of the skin defining an opening is mechanically bound together by a portion of the release material to close the physical barrier.

16. The device of claim 15, where the at least two edges of the skin are located on an interior of the device assembly.

17. The device of claim 1, where the release material is located on an interior of the reservoir such that the release material is physically separated from bodily fluids.

18. The device of claim 1, where the device assembly when in the active profile as a result of the expanded filler material comprises a semi-solid consistency similar to natural substances within the body.

19. The device of claim 1, where the skin comprises a low a moisture vapor transmission rate.

20. The device of claim 1, where the filler material comprises a hydrodgel.

21. A method for temporarily occupying a gastric space in a body of a patient, the method comprising

providing a device assembly having a conduit comprising a flexible end portion free of rigid and/or semi-rigid materials to enable swallowing of the device assembly and the flexible end portion, where the flexible end portion has an end that extends within a reservoir of the device assembly;

deploying the device assembly within the gastric space;

delivering a fluid through the supply tube such that the device assembly expands to

an active profile that occupies a sufficient volume within the gastric space to provide a therapeutic effect; and

withdrawing the supply tube from the device assembly allowing the device assembly to self seal and permit the device assembly to remain within the gastric space for a period of time.

22. The method of claim 21, where the device assembly further comprises a liquid impermeable skin material that is coupled to a release material to form a physical barrier, the method further comprising delivering an exogenous substance to the gastric space that causes disruption of the release material and allows the device assembly to reduce in size.

23. The method of claim 22, where the exogenous substance comprises a fluid having a temperature greater than body temperature.

24. The method of claim 22, where the exogenous substance comprises a material that raises a temperature within the gastric space, which causes disruption of the release material.

25. The method of claim 21, where the device assembly further comprises a filler material within the reservoir that expands when combined with the fluid, where delivering the fluid comprises delivering the fluid until the filler material expands the device assembly to the active profile.

26. The method of claim 21, where the filler material comprises a substance selected from the group consisting of a hydrogel, a liquid or a gas.

27. The method of claim 21, where deploying the device assembly comprises deploying a plurality of device assemblies such that the plurality of device assemblies occupy the sufficient volume to provide the therapeutic effect.

28. A medical device for occupying a gastric space within a patient's body, the medical device comprising:

a device assembly comprising a skin, a fluid transfer member, the skin forming a perimeter of the device assembly defining a reservoir therein, where the skin is liquid impermeable and where the fluid transfer member comprises a flexible elongate fluid path

that permits delivery of fluids into the reservoir;

the device assembly having a deployment profile and an active profile, where the deployment profile is smaller than the active profile and permits positioning of the device assembly within the patient's body via swallowing of the device assembly;

a filler material retained within the reservoir and configured to expand as fluid is delivered through the fluid transfer member to cause the device assembly to expand from the deployment profile to the active profile such that the device assembly occupies at least a portion of the gastric space within the patient's body; and

an elongate conduit having a proximal end and a device end, where the device end is flexible to accommodate swallowing by the patient, the elongate conduit configured to deliver fluid through the fluid transfer member, where the device end of the conduit is removably located within the flexible elongate fluid path, such that upon removal of the conduit a flow resistance of the flexible elongate fluid path is sufficient to prevent filler material from escaping.

29. The device of claim 28, where the conduit comprises a slidable fit with the sealable path.

30. The device of claim 28, where the filler material comprises a semi-solid consistency when expanded to mimic natural substances within a gastric space.

31. The device of claim 28, where the skin comprises at least one opening and where each of the at least one openings are covered by the release material.

32. The device of claim 31, where the release material comprises a plurality of discrete portions covering a plurality of openings in the skin

33. The device of claim 31, where the device assembly can be reduce to at least 5ml volume when in the deployment profile and where at least a portion of the release material comprises a shape that approximates a shape of the deployment profile reducing the amount of deformation of the release material.

34. The device of claim 28, where the skin comprises at least two edges that are mechanically bound together by a portion of the release material to close the physical barrier.

35. The device of claim 34, where the at least two edges of the skin are located on an interior of the device assembly.

36. The device of claim 28, where the release material is located on an interior of the skin such that the release material is physically separated from bodily fluids.

37. The device of claim 28, where the device assembly when in the active profile as a result of the expanded filler material comprises a semi-solid consistency similar to natural substances within the body.

38. The device of claim 28, where the skin is configured to have a low a moisture vapor transmission rate

39. The device of claim 28, where the filler material comprises a fluid.

40. The device of claim 28, where the filler material comprises a hydrodgel.

41. A medical device for occupying a gastric space within a patient's body, the medical device comprising:

a device assembly comprising a skin, a fluid transfer member, and a release material, the surface layer forming a perimeter of the device assembly defining a reservoir therein, where the release material is coupled to at least a portion of the skin such that the skin and release material form a physical barrier about the reservoir and where the fluid transfer member comprises a flexible elongate valve extending within the reservoir;

a conduit having a proximal end extending from outside of the perimeter of the device assembly and a flexible device end extending through flexible elongate valve, the flexible device end having a compliance to permit swallowing of the device end and device assembly;

a filler material retained within the reservoir by the physical barrier and configured to expand as fluid is delivered through the fluid transfer member to cause the device assembly to expand from a deployment profile to an active profile such that the device assembly occupies at least a portion of the gastric space within the patient's body in the active profile;

wherein the conduit device end is removable from the flexible elongate valve upon assuming the active profile, wherein upon removal of the device end from the flexible elongate valve, a flow resistance of the flexible elongate valve prevents filler material from

escaping therethrough; and

wherein exposure of the release material to a substance not naturally produced in the body disrupts the release material and opens at least one path in the physical barrier.

42. The device of claim 41, where the conduit comprises a slidable fit with the sealable path.

43. The device of claim 42, where the filler material comprises a semi-solid consistency when expanded to mimic natural substances within a gastric space.

44. The device of claim 42, where the skin comprises at least one opening and where each of the at least one openings are covered by the release material.

45. The device of claim 41, where the release material comprises a plurality of discrete portions covering a plurality of openings in the skin

46. The device of claim 41, where the device assembly can be reduce to at least 5ml volume when in the deployment profile and where at least a portion of the release material comprises a shape that approximates a shape of the deployment profile reducing the amount of deformation of the release material.

47. The device of claim 41, where the skin comprises at least two edges that are mechanically bound together by a portion of the release material to close the physical barrier.

48. The device of claim 47, where the at least two edges of the skin are located on an interior of the device assembly.

49. The device of claim 41, where the release material is located on an interior of the skin such that the release material is physically separated from bodily fluids.

50. The device of claim 41, where the device assembly when in the active profile as a result of the expanded filler material comprises a semi-solid consistency similar to mimic natural substances within the body.

51. The device of claim 41, where the skin comprises a low a moisture vapor transmission rate

52. The device of claim 41, where the filler material comprises a fluid or gas.

53. The device of claim 41, where the filler material comprises a hydrodgel.

54. A medical device for occupying a gastric space within a patient's body, the medical device comprising:

a device assembly comprising a skin and a fluid transfer member, the surface layer forming a perimeter of the device assembly defining a reservoir therein;

a conduit having a proximal end extending outside of the perimeter of the device assembly and a device end extending through the fluid transfer member such that the conduit is in fluid communication with the reservoir, wherein the conduit comprises a hydroscopic material that pulls fluid from the gastric space into the reservoir; and

a filler material retained within the reservoir by the physical barrier and configured to expand as fluid is delivered through the fluid transfer member to cause the device assembly to expand from a deployment profile to an active profile such that the device assembly occupies at least a portion of the gastric space within the patient's body in the active profile, wherein in the active profile the expanded filler material causes closure of the fluid transfer member to prevent the conduit from pulling fluid into the reservoir.

55. A method for temporarily occupying a gastric space in a body of a patient, the method comprising

providing a device assembly having a hydroscopic member extending from an exterior of the device assembly into a reservoir of the device assembly, a filler material located within the reservoir and where the device assembly and hydroscopic member are capable of being swallowed by the patient;

wherein after positioned within the gastric space, the hydroscopic member absorbs fluids within the gastric space and delivers the fluids into the reservoir such that the fluids combine with the filler material to expand the device assembly into an active profile until the device assembly self-seals; and

delivering a substance to the gastric space to cause a portion of the device assembly to degrade and allow the expanded filler material to escape from the reservoir and pass within the body of the patient.

56. A medical device for occupying a gastric space within a patient's body, the medical device comprising:

a device assembly comprising a skin, a fluid transfer member, and a release material, the skin forming a perimeter of the device assembly defining a reservoir therein, where the release material is coupled to at least a portion of the skin such that the skin and release material are coupled to create a physical barrier about the reservoir, where the skin is liquid impermeable and where the fluid transfer member permits delivery of fluids into the reservoir through the physical barrier;

the device assembly having a deployment profile and an active profile, where the deployment profile is smaller than the active profile and permits deployment of the device assembly within a gastric space in the patient's body;

whereupon fluid entering the reservoir causes the device assembly to expand from the deployment profile to the active profile such that the device assembly occupies at least a portion of the gastric space within the patient's body; and

wherein application of an exogenous substance opens at least one path in the physical barrier such the fluids exit the reservoir resulting in reduction of a size of the deployment profile.