CLAIMS

1. A system, for use with an anchor driver, the system comprising an annuloplasty structure that comprises:

a wire;

a plurality of tissue anchors, each of the tissue anchors comprising

a tissue-engaging element defining a central longitudinal axis of the tissue anchor, having a sharpened distal tip, and configured to be driven into tissue of a subject;

a neck; and

a head, coupled to the tissue-engaging element via the neck, and comprising a driver interface configured to be reversibly engaged by the anchor driver in a manner that facilitates the anchor driver driving the tissue-engaging element into the tissue; and

a plurality of flexible connectors, each of the connectors formed from a flexible polymer that is shaped to define:

a circumferential portion that has a hole therethrough, and that connects the connector to a respective one of the tissue anchors, and the neck of the respective tissue anchors extends through the hole, such that (i) the head of the respective tissue anchor is disposed on a first side of the hole, (ii) the tissue-engaging element of the respective tissue anchor is on a second, opposite, side of the hole, and (iii) the respective tissue anchor is rotatable, around the central longitudinal axis, with respect to the connector; and

an eyelet through which the wire is threaded, thereby slidably coupling the connector to the wire.

2. The system according to claim 1, wherein, for each of the tissue anchors, the tissue-engaging element is configured to be screwed into the tissue by the anchor driver rotating the driver interface.

3. The system according to any one of claims 1-2, wherein, for each of the connectors, the connector is connected to the respective tissue anchor such that the eyelet is disposed laterally from the head.

4. The system according to any one of claims 1-3, wherein the circumferential portion circumscribes the head of the respective tissue anchor.

5. The system according to any one of claims 1-4, wherein the circumferential portion connects the connector to the respective tissue anchor such that the driver interface is exposed from the circumferential portion.

6. The system according to any one of claims 1-5, wherein the flexible polymer is a flexible fabric of the polymer.

7. The system according to claim 6, wherein the eyelet is defined by a hem stitched in the flexible fabric of the polymer.

8. The system according to any one of claims 1-7, wherein the wire is a first wire and the eyelet is a first eyelet, and the annuloplasty structure comprises a second wire; and

wherein the polymer is shaped to define a second eyelet, and each of the connectors slidably coupling the respective one of the tissue anchors to the first wire being threaded through the first eyelet and to the second wire being threaded through the second eyelet.

9. The system according to claim 8, wherein the first wire and the second wire are generally parallel with each other.

10. The system according to claim 8, wherein, for each connector: the flexible polymer is shaped, such that the first eyelet and the second eyelet are disposed on either side of the hole, and the respective tissue anchor is disposed between the first wire and the second wire.

11. The system according to any one of claims 1-10, further comprising the anchor driver.

12. The system according to claim 11, wherein:

the system comprises a delivery tool that comprises a flexible tube and the anchor driver,

the anchor driver comprises a flexible shaft, and a driver head at a distal end of the shaft, the driver head being configured to reversibly engage the driver interface of each of the tissue anchors, and

each of the connectors is sufficiently flexible to facilitate the anchor driver sliding the respective tissue anchor over and along the wire while the central longitudinal axis of the respective tissue anchor is generally parallel to the wire.

13. The system according to claim 1, wherein, for each of the connectors, the head of the respective tissue anchor is wider than the hole.

14. A system, for use with an anchor driver, the system comprising an annuloplasty structure that comprises:

a wire;

a plurality of tissue anchors, each of the tissue anchors comprising:

a tissue-engaging element defining a central longitudinal axis of the tissue anchor, having a sharpened distal tip, and configured to be driven into tissue of a subject;

a neck; and

a head, coupled to the tissue-engaging element via the neck, and comprising a driver interface configured to be reversibly engaged by the anchor driver, and a head circumferential surface defined around the central longitudinal axis; and

a plurality of flexible fabric portions, each of the fabric portions:

slidably coupling, to the wire, a respective tissue anchor of the plurality of tissue anchors;

and comprising:

a distal opening through which the neck extends, wherein the tissue anchor is rotatable, around the central longitudinal axis, with respect to the fabric portion; and

an eyelet through which the wire is threaded, thereby slidably coupling the fabric portion to the wire.

15. The system according to claim 14, wherein the eyelet is defined by a patch coupled to the fabric portion at upper and lower portions of the patch.

16. The system according to any one of claims 14-15, wherein the wire is a first wire and the eyelet is a first eyelet, and the annuloplasty structure comprises a second wire; and

wherein the fabric portion comprises a second eyelet, and each of the fabric portions slidably coupling the respective one of the tissue anchors to the first wire being threaded through the first eyelet and to the second wire being threaded through the second eyelet.

17. The system according to claim 16, wherein the first wire and the second wire are generally parallel with each other.