

We claim:

1. A prosthetic heart valve, comprising:
a frame including a first end with a plurality of apices spaced apart from one another around a circumference of the first end; and
a plurality of discrete cushioning elements covering the plurality of apices, wherein each cushioning element of the plurality of cushioning elements is coupled to and covers a different apex of the plurality of apices.
2. The prosthetic heart valve of claim 1, wherein each cushioning element comprises a flexible material folded over a corresponding apex of the plurality of apices.
3. The prosthetic heart valve of claim 2, wherein the flexible material comprises a fabric.
4. The prosthetic heart valve of any of the preceding claims, wherein each cushioning element comprises a plurality of folds arranged over and across a distal edge of a corresponding apex of the plurality of apices.
5. The prosthetic heart valve of claim 4, wherein, for each cushioning element, the plurality of folds extends between an inner layer and an outer layer of the cushioning element, the inner layer covering an inner surface of the corresponding apex and the outer layer covering an outer surface of the corresponding apex, the inner and outer surfaces relative to a central longitudinal axis of the prosthetic heart valve.
6. The prosthetic heart valve of claim 5, wherein the inner layer and the outer layer are secured together around both sides of the corresponding apex.
7. The prosthetic heart valve of any of claims 5 and 6, wherein each of the inner layer and the outer layer extend from a distal surface of the cushioning element, the distal surface formed by the plurality of folds, to a base of the corresponding apex.

8. The prosthetic heart valve of any of claims 1-3, wherein each cushioning element comprises an inner layer covering an inner surface of a corresponding apex of the plurality of apices, an outer layer covering an outer surface of the corresponding apex, and a distal layer defining a distal surface of the cushioning element and extending radially between the inner layer and the outer layer and across a distal edge of the corresponding apex.

9. The prosthetic heart valve of claim 8, wherein each cushioning element further comprises a plurality of folds arranged between the inner layer and the outer layer, and wherein each fold of the plurality of folds extends from the distal layer to a base of the corresponding apex.

10. The prosthetic heart valve of claim 1, wherein each cushioning element comprises one or more sutures repeatedly looped over a corresponding apex of the plurality of apices.

11. The prosthetic heart valve of claim 1, wherein each cushioning element comprises a pocket surrounding a corresponding apex of the plurality of apices and including a padding element disposed within the pocket, the padding element arranged distally to a distal edge of the corresponding apex.

12. The prosthetic heart valve of claim 11, wherein the pocket comprises a flexible material including one of a fabric and flexible polymer.

13. The prosthetic heart valve of any of claims 11 and 12, wherein overlapping folds of the pocket are secured to one another, along at least a portion of a periphery of the pocket.

14. The prosthetic heart valve of any of claims 11-13, wherein the pocket is fastened directly to the corresponding apex.

15. The prosthetic heart valve of any of claims 11-14, wherein the padding element is fixed to the pocket.

16. The prosthetic heart valve of any of the preceding claims, further comprising an outer skirt arranged around a circumference of the frame, at the first end, and wherein the cushioning element is attached to the outer skirt.

17. The prosthetic heart valve of any of the preceding claims, wherein the prosthetic heart valve is adapted to be crimped on a delivery device with the first end arranged at a distal end of the delivery device, proximate to a nosecone of the delivery device.