

# CG FUTURE<sup>®</sup>

## COMPOSITE Annuloplasty Ring



A Unique Composite Design for Dynamic Mitral Repair

Considering that mitral valve repairs are performed predominantly for degenerative disease,<sup>1,2</sup> Drs. Colvin and Galloway\* believed a device was needed that combined both posterior remodeling and anterior flexibility. They also wanted a device that would be easy to implant. The result is the CG Future® Ring, which predictably remodels the posterior annulus while offering the confidence of a ring.

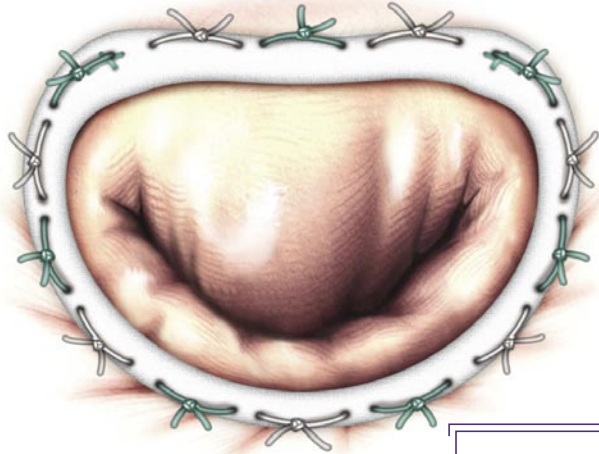


# Semi-rigid Posterior Remodeling with Anterior Flexibility



# Unique Composite Design Considers Both Cardiac Cycles

The CG Future® Ring is the first composite ring to offer posterior remodeling while maintaining anterior flexibility.

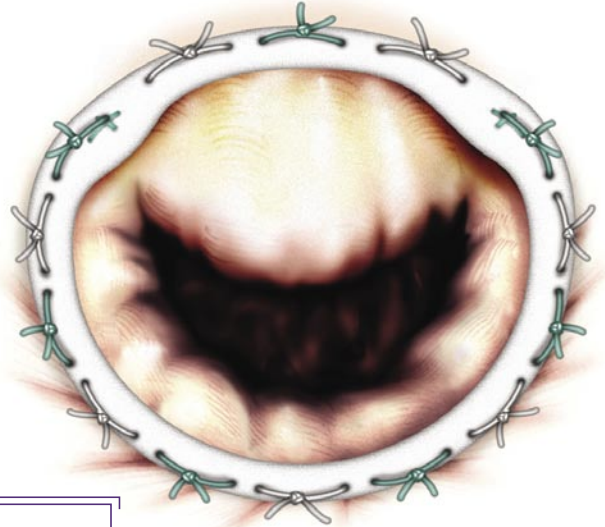


## 3:4

In cardiac systole, the ring remodels the mitral valve orifice to a normal 3:4 ratio between the anteroposterior and transverse diameters.

REDUCED RISK FOR ANTERIOR DILATATION

A flexible anterior segment seamlessly connects to the ring's semi-rigid posterior, providing the support needed to dynamically remodel the annulus, thereby allowing physiologic movement throughout the cardiac cycle.



## 4:4

In cardiac diastole, the ring's dynamic characteristics allow physiologic motion and movement to maintain the normal 4:4 ratio between anteroposterior and transverse diameters.

The orifice of a normal mitral valve is kidney-shaped, and its transverse diameter is 33 percent greater than its anteroposterior (A/P) diameter. In some diseased mitral valves, the annulus may be deformed so that the anteroposterior diameter becomes equal to or greater than the transverse diameter, altering the natural 3:4 ratio and resulting in mitral valve insufficiency.<sup>3</sup> Semi-rigid annuloplasty remodels the annulus, restoring its physiologic annular ratio,<sup>4</sup> while providing flexibility at the posterior annulus.<sup>1</sup>

Considered a benefit by surgeons with degenerative, ischemic and dilated cardiomyopathic patients, the CG Future® Ring is available in eight sizes ranging from 24 mm to 38 mm and offers:



EASY AND SECURE ANCHORING TO THE TRIGONES

SEMI-RIGID REMODELING

EASE OF IMPLANT WITH 20% LOWER PROFILE<sup>5</sup>

## SYSTEM COMPONENTS

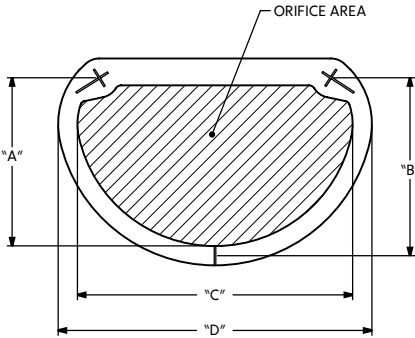
The CG Future® Ring encompasses both performance and practicality. Each of the system components is packaged and ordered separately.

**RING** The CG Future® Ring package contains a single annuloplasty ring assembly consisting of a ring and holder packaged in sterile, double-aseptic transfer pouches. The packaging system is designed to ease placement of the device into the sterile field.

**SIZER SET** The CG Future® Ring sizers are designed to snap-fit one way with the malleable surgical stainless steel handle. The eight polysulfone sizers and handle can be resterilized and reused.

**HANDLE** The malleable, surgical stainless steel handle snap-fits on to both the band holder and the sizers. The handle comes in three lengths, 216 mm, 251 mm, and 373 mm, to accommodate various surgical techniques.

### CG FUTURE® RING DIMENSIONS

	Size	A	B	C	D	Orifice Area
	24	15.27 mm	16.53 mm	24.0 mm	28.9 mm	269.3 mm <sup>2</sup>
	26	16.38 mm	17.64 mm	26.0 mm	30.9 mm	314.9 mm <sup>2</sup>
	28	17.48 mm	18.73 mm	28.0 mm	32.9 mm	364.3 mm <sup>2</sup>
	30	18.59 mm	19.85 mm	30.0 mm	34.9 mm	417.3 mm <sup>2</sup>
	32	19.71 mm	20.97 mm	32.0 mm	36.9 mm	474.7 mm <sup>2</sup>
	34	20.83 mm	22.09 mm	34.0 mm	38.9 mm	536.0 mm <sup>2</sup>
	36	21.92 mm	23.18 mm	36.0 mm	40.9 mm	600.9 mm <sup>2</sup>
	38	23.04 mm	24.29 mm	38.0 mm	42.9 mm	669.4 mm <sup>2</sup>

### ORDERING INFORMATION: CG FUTURE® ANNULOPLASTY RING

Order #	Description
638RL24	CG Future® Annuloplasty Ring Model 638R, 24 mm
638RL26	CG Future® Annuloplasty Ring Model 638R, 26 mm
638RL28	CG Future® Annuloplasty Ring Model 638R, 28 mm
638RL30	CG Future® Annuloplasty Ring Model 638R, 30 mm
638RL32	CG Future® Annuloplasty Ring Model 638R, 32 mm
638RL34	CG Future® Annuloplasty Ring Model 638R, 34 mm
638RL36	CG Future® Annuloplasty Ring Model 638R, 36 mm
638RL38	CG Future® Annuloplasty Ring Model 638R, 38 mm

### ORDERING INFORMATION: CG FUTURE® ANNULOPLASTY SYSTEM COMPONENTS

Order #	Description
7638S	CG Future® Sizer Set (eight sizers)
7615	Annuloplasty Handle (216 mm length)
7615L	Annuloplasty Handle (251 mm length)
7615XL	Annuloplasty Handle (373 mm length)
T7630	CG Future® Accessory Tray

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### REFERENCES

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- Carpentier AF, Lessana A, Relland JYM, et. al. Physio-Ring: An Advanced Concept in Mitral Valve Annuloplasty. *Ann Thorac Surg* 60:1177-86, 1995.
- Data on file. Medtronic, Inc

\*Drs. Stephen B. Colvin and Aubrey C. Galloway have a financial interest through royalties from Medtronic Inc., on sales of the CG Future® Annuloplasty System.

### CG Future® Annuloplasty System

**Indications:** This device is indicated for the reconstruction and/or remodeling of pathological mitral valves. Valvular insufficiency and/or stenosis may be corrected by appropriate repair and annular remodeling. **Contraindications:** Heavily calcified valves, valvular retraction with severely reduced mobility, active bacterial endocarditis. **Warnings/Precautions/Adverse Events:** Only physicians who have received proper training in valve repair should use this device. Adverse events can include: thromboembolic events, dehiscence, hemolysis, stenosis, residual incompetence, heart block, endocarditis, systolic anterior motion, left ventricular outflow tract obstruction, anticoagulant-related bleeding or hemorrhage.

For additional information please refer to the Instructions for Use provided with the product or contact your local Medtronic representative.

**CAUTION:** Federal law (USA) restricts this device to sale by or on the order of a physician.