CLAIMS:

1. An implantable device for monitoring vascular lumen diameter, comprising:
   a sensing element for measuring changes in inferior vena cava dimension or volume at a monitoring location inside the vascular lumen of an inferior vena cava;
   an anchor element configured to securely anchor the device to the vascular lumen at an anchoring location inside the vascular lumen with the sensing element positioned at the monitoring location; and
   wherein the sensing element is isolated from the anchor element such that the IVC can naturally expand and contract at the monitoring location without significant constraint.
2. The implantable device of claim 1, wherein said sensing element comprises at least one active marker element.
3. The implantable device of claim 2, wherein said at least one active marker element is powered by an externally delivered magnetic, electrical or ultrasonic field.
4. The implantable device of claim 2 or claim 3, wherein said at least one active marker element comprises a coil.
5. The implantable device of claim 1, wherein said sensing element comprises at least two passive marker elements.
6. The implantable device of claim 5, wherein said at least two passive marker elements comprise at least two passive coils.
7. The implantable device of claim 1, wherein said anchor element comprises an expandable and collapsible stent-like structure.
8. The implantable device of claim 7, wherein said stent-like structure is self-expanding.
9. The implantable device of claim 7, wherein said stent-like structure includes outer anchoring hooks configured to engage the lumen wall.
10. The implantable device of claim 1, wherein said anchor element comprises plural

flexible, resilient struts with distal tips configured to engage the lumen wall extending outward the device.

11. The implantable device of claim 2, wherein said at least one active marker element comprises a single ultrasound transducer.

12. The implantable device of claim 2, wherein said at least one active marker element comprises at least two electrodes.

13. The implantable device of claim 2, wherein said at least one active marker element comprises at least two coils.

14. A cardiac therapy system comprising the implantable monitoring device of claim 1 and further comprising:

an implantable cardiac therapy device including an implantable housing containing at least power and control modules;

at least one lead connecting said sensing element with the implantable housing and modules contained therein;

at least one cardiac therapy delivery element; and

at least one lead connecting said at least one therapy delivery element to the implantable housing and modules contained therein;

wherein said control module executes instructions for

generating a signal with said sensing element,

receiving a signal responsive to the generated signal with said sensing element, the received signal being indicative of vessel diameter at the monitoring location;

determining vena cava diameter at the monitoring location based on said signal;

comparing the determined diameter to a reference diameter to determine a change in vena cava diameter,

evaluating heart condition based on the determined change in vena cava diameter; and

modulating cardiac therapy delivered by said at least one therapeutic device passed on the evaluated heart condition.

15. The cardiac therapy system of claim 14, wherein said cardiac therapy device

comprises a pacemaker and said at least one cardiac therapy delivery element comprises at least one pacing lead.