§ 870.4430 Cardiopulmonary bypass intracardiac suction control.

(a) Identification. A cardiopulmonary bypass intracardiac suction control is a device which provides the vacuum and control for a cardiotomy return sucker.

(b) Classification. Class II (performance standards).

§ 870.4450 Vascular clamp.

(a) Identification. A vascular clamp is a surgical instrument used to occlude a blood vessel temporarily.

(b) Classification. Class II (performance standards).

§ 870.4475 Surgical vessel dilator.

(a) Identification. A surgical vessel dilator is a device used to enlarge or calibrate a vessel.

(b) Classification. Class II (performance standards).

§ 870.4500 Cardiovascular surgical instruments.

(a) Identification. Cardiovascular surgical instruments are surgical instruments that have special features for use in cardiovascular surgery. These devices include, e.g., forceps, retractors, and scissors.

(b) Classification. Class I (general controls). The device is exempt from the premarket notification procedures in subpart E of part 807 of this chapter subject to the limitations in § 870.9.


§ 870.4875 Intraluminal artery stripper.

(a) Identification. An intraluminal artery stripper is a device used to perform an endarterectomy (removal of plaque deposits from arteriosclerotic arteries.)

(b) Classification. Class II (performance standards).

§ 870.4885 External vein stripper.

(a) Identification. An external vein stripper is an extravascular device used to remove a section of a vein.

(b) Classification. Class II (performance standards).

§ 870.5050 Patient care suction apparatus.

(a) Identification. A patient care suction apparatus is a device used with an intrathoracic catheter to withdraw fluid from the chest during the recovery period following surgery.

(b) Classification. Class II (performance standards).

§ 870.5100 Percutaneous Transluminal Coronary Angioplasty (PTCA) Catheter.

(a) Standard PTCA Catheter—(1) Identification. A PTCA catheter is a device that operates on the principle of hydraulic pressurization applied through an inflatable balloon attached to the distal end. A PTCA balloon catheter has a single or double lumen shaft. The catheter features a balloon of appropriate compliance for the clinical application, constructed from a polymer. The balloon is designed to uniformly expand to a specified diameter and length at a specific pressure as labeled, with well characterized rates of inflation and deflation and a defined burst pressure. The device generally features a type of radiographic marker to facilitate fluoroscopic visualization of the balloon during use. A PTCA catheter is intended for balloon dilatation of a hemodynamically significant coronary artery or bypass graft stenosis in patients evidencing coronary ischemia for the purpose of improving myocardial perfusion. A PTCA catheter may also be intended for the treatment of acute myocardial infarction; treatment of in-stent restenosis (ISR) and/or post-deployment stent expansion.

(2) Classification. Class II (special controls). The special control for this device is “Class II Special Controls Guidance Document for Certain Percutaneous Transluminal Coronary Angioplasty (PTCA) Catheters.” See §870.1(e) for the availability of this guidance document.

(b) Cutting/scoring PTCA Catheter—(1) Identification. A cutting/scoring PTCA catheter is a balloon-tipped catheter
with cutting/scoring elements attached, which is used in those circumstances where a high pressure balloon resistant lesion is encountered. A cutting/scoring PTCA catheter is intended for the treatment of hemodynamically significant coronary artery stenosis for the purpose of improving myocardial perfusion. A cutting/scoring PTCA catheter may also be indicated for use in complex type C lesions or for the treatment of in-stent restenosis.

(2) Classification. Class III (premarket approval). As of May 28, 1976, an approval under section 515 of the act is required before this device may be commercially distributed. See §870.3.

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§870.5150 Embolectomy catheter.

(a) Identification. An embolectomy catheter is a balloon-tipped catheter that is used to remove thromboemboli, i.e., blood clots which have migrated in blood vessels from one site in the vascular tree to another.

(b) Classification. Class II (performance standards).

§870.5175 Septostomy catheter.

(a) Identification. A septostomy catheter is a special balloon catheter that is used to create or enlarge the atrial septal defect found in the heart of certain infants.

(b) Classification. Class II (performance standards).

§870.5200 External cardiac compressor.

(a) Identification. An external cardiac compressor is an external device that is electrically, pneumatically, or manually powered and is used to compress the chest periodically in the region of the heart to provide blood flow during cardiac arrest.

(b) Classification. Class III (premarket approval).

(c) Date PMA or notice of completion of a PDP is required. No effective date has been established of the requirement for premarket approval. See §870.3.


§870.5225 External counter-pulsating device.

(a) Identification. An external counter-pulsating device is a noninvasive device used to assist the heart by applying positive or negative pressure to one or more of the body’s limbs in synchrony with the heart cycle.

(b) Classification. Class III (premarket approval).

(c) Date PMA or notice of completion of a PDP is required. No effective date has been established of the requirement for premarket approval. See §870.3.


§870.5300 DC-defibrillator (including paddles).

(a) Low-energy DC-defibrillator—(1) Identification. A low-energy DC-defibrillator is a device that delivers into a 50 ohm test load an electrical shock of a maximum of 360 joules of energy used for defibrillating (restoring normal heart rhythm) the atria or ventricles of the heart or to terminate other cardiac arrhythmias. This generic type of device includes low energy defibrillators with a maximum electrical output of less than 360 joules of energy that are used in pediatric defibrillation or in cardiac surgery. The device may either synchronize the shock with the proper phase of the electrocardiogram or may operate asynchronously. The device delivers the electrical shock through paddles placed either directly across the heart or on the surface of the body.

(2) Classification. Class II (performance standards).

(b) High-energy DC-defibrillator—(1) Identification. A high-energy DC-defibrillator is a device that delivers into a 50 ohm test load an electrical shock of greater than 360 joules of energy used for defibrillating the atria or ventricles of the heart or to terminate other cardiac arrhythmias. The device may either synchronize the shock with the proper phase of the electrocardiogram or may operate asynchronously. The device delivers the electrical shock through paddles placed either directly across the heart or on the surface of the body.