

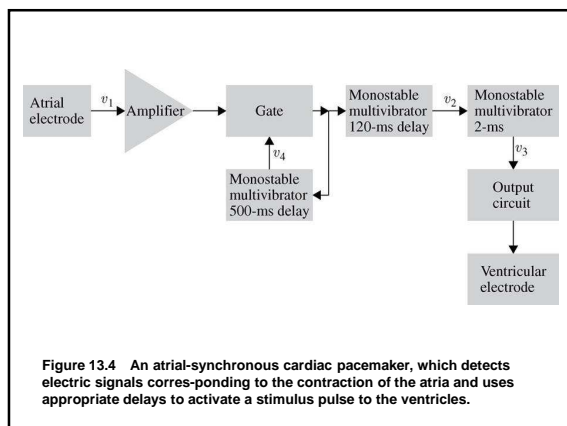
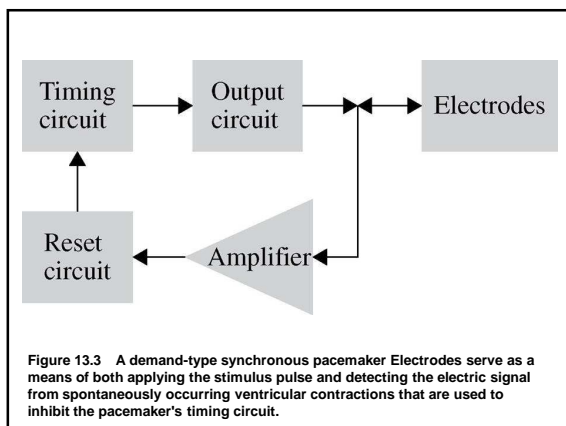
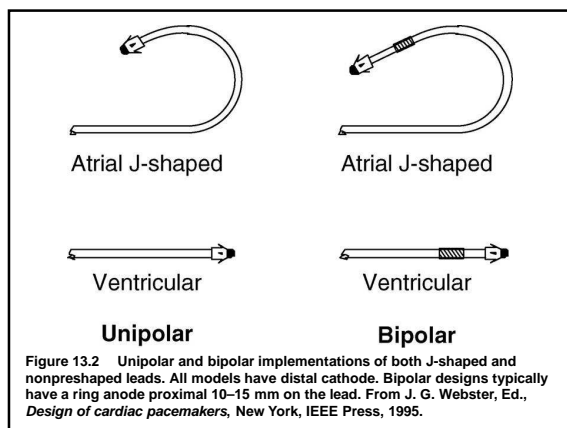
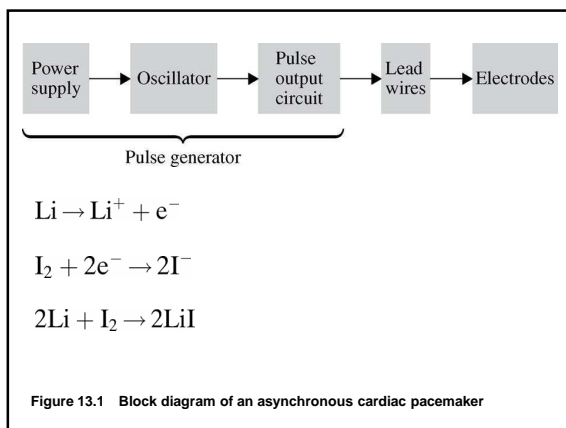
Biomedical Instrumentation

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Therapeutic and Prosthetic Devices



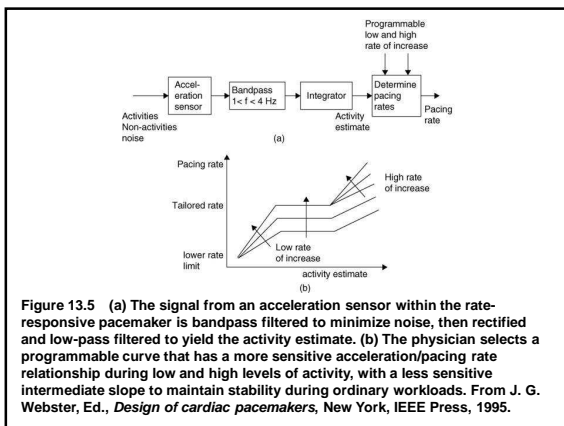


Table 13.1 Physiological Variables That Have Been Sensed by Rate-Responsive Pacemakers

Physiological Variable	Sensor
Right-ventricle blood temperature	Thermistor
ECG stimulus-to-T-wave interval	ECG electrodes
ECG R-wave area	ECG electrodes
Blood pH*	Electrochemical pH electrode
Rate of change of right ventricular pressure*	Semiconductor strain-gage pressure sensor
$\left(\frac{dp}{dt}\right)$	
Venous blood oxygen saturation*	Optical oximeter
Intracardiac volume changes	Electric-impedance plethysmography (intracardiac)
Respiratory rate and/or volume	Thoracic electric-impedance plethysmography
Body vibration	Accelerometer

*Not commercially available.

Table 13.1

