

SLRHC Physics Worksheet

_____ Acoustic output	A. Stiffness or resistance of the tissue to molecular movement; proportional to tissue density
_____ Frequency	B. Amount of energy leaving the transducer; power
_____ Attenuation	C. The amplitude display of the returning echoes; structures of higher amplitude are brighter; structures of lower amplitude are darker
_____ Reflection	D. Frequency shift that exists between transmitted and received signal
_____ Refraction	E. The number of times per second the wave is repeated; typically 2-15 MHz
_____ Scattering	F. Speed of ultrasound wave propagation in human tissue
_____ Absorption	G. Redirection of the sound wave back to its source
_____ Acoustic impedance	H. The energy contained within a tissue; acoustic energy is converted to thermal energy thereby dissipating as heat
_____ Doppler	I. Axial and lateral; minimum reflector separation required to produce separate reflections in a pulse-echo system
_____ Echogenicity	J. Progressive weakening of sound as it travels; depends upon medium through which sound travels, wavelength of emitted sound, and number of interfaces encountered
_____ Resolution	K. Ultrasound beam encounters an interface that is smaller than the sound beam or irregularly shaped
_____ 1540 meters/sec	L. Redirection of part of the sound wave as it crosses into a medium of different propagation speed
_____ Piezoelectric effect	M. Materials that result in the production of a pressure when deformed by an applied voltage