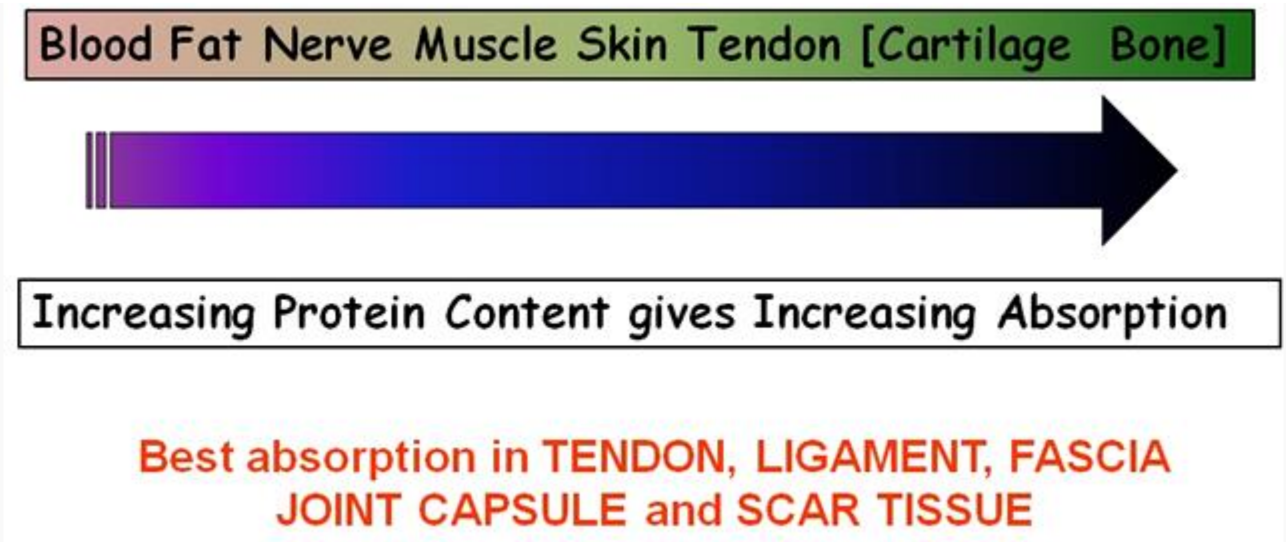
The motor effects of high frequency mechanical muscle vibration (about 150 Hz) was studied… the technique seem to have diagnostic as well as therapeutic applications… It is now well documented that high frequency mechanical vibratio applied to any skeletal muscle in man tends to induce the following reflex response: sustained contraction of the muscle vibrate and simultaneous relaxation of its prime antagonists.  This response has been named **TVR (tonic vibration reflex**, - Eklund ar Hagbarth, 1966).

There is strong evidence to suggest that acute indirect vibration acts on muscle to enhance force, power, flexibility, balance and proprioception suggesting neural enhancement. One proposal suggests that spinal reflexes enhance muscle contraction through a reflex activity known as **tonic vibration stretch reflex (TVR).** J Sports Sci Med. 2011 Mar; Cochrane

Scar Tissue has a resonant frequency of 147Hz -Dr Paul Nogier, MD in *Treatise of Auriculotherapy*. Maisonneuve. (1972)

From Physiopedia: http://www.physio-pedia.com/Ultrasound_therapy...

As the penetration (or transmission) of US is not the same in each tissue type, it is clear that some tissues are capable of greater absorption of US than others. Generally, the tissues with the higher protein content will absorb US to a greater extent, thus tissues with high water content and low protein content absorb little of the US energy (e.g. blood and fat) whilst those with a lower water content and a higher protein content will absorb US far more efficiently. Tissues can be ranked according to their relative tissue absorption and this is critical in terms of clinical decision making[6].




Relative tissue absorption relates to protein content

Although cartilage and bone are at the upper end of this scale, the problems associated with wave reflection mean that the majority of US energy striking the surface of either of these tissues is likely to be reflected. The best absorbing tissues in terms of clinical practice are those with high collagen content – LIGAMENT, TENDON, FASCIA, JOINT CAPSULE, SCAR TISSUE[5][6][16][3][18][19].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