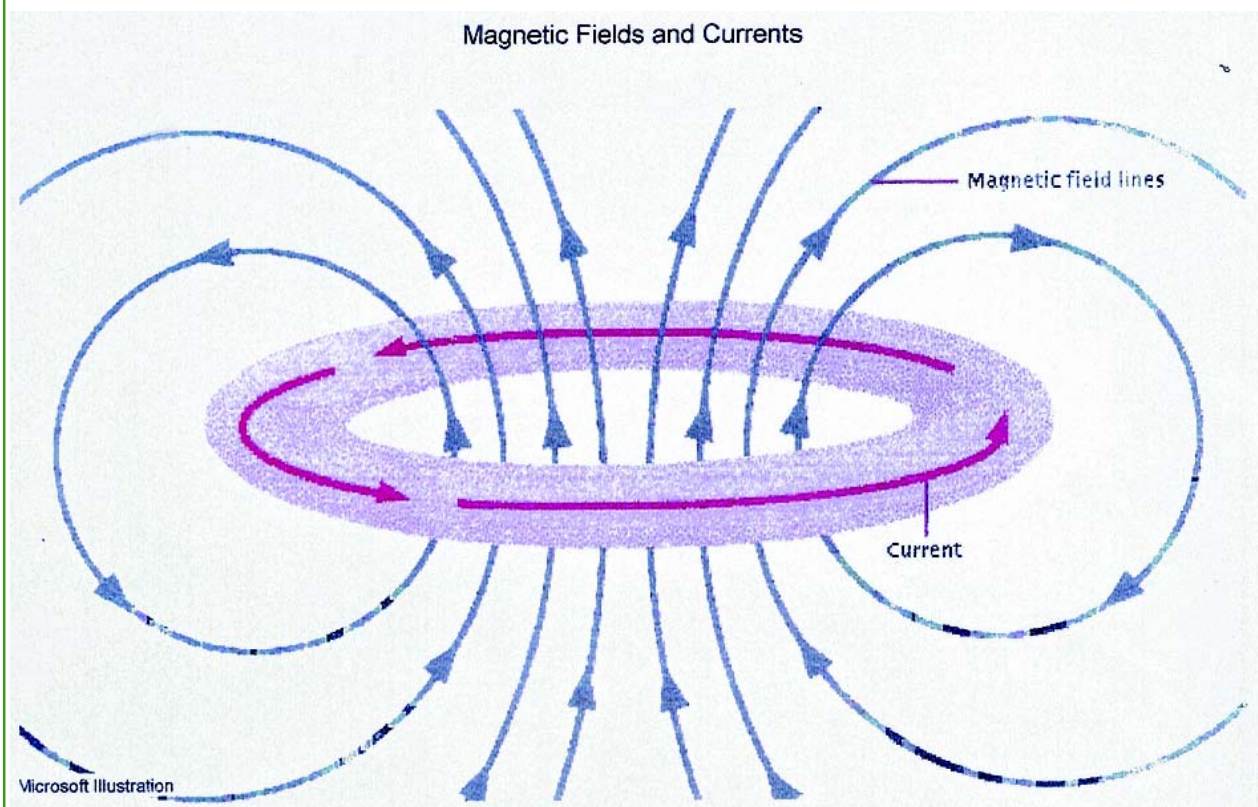


DEAR INTERESTED FRIEND OF PST[®]:

The question of why we CANNOT treat two different joint systems during the same 9-hour course of treatment has been often posed and I will now attempt a response.

Types of Wave Motion

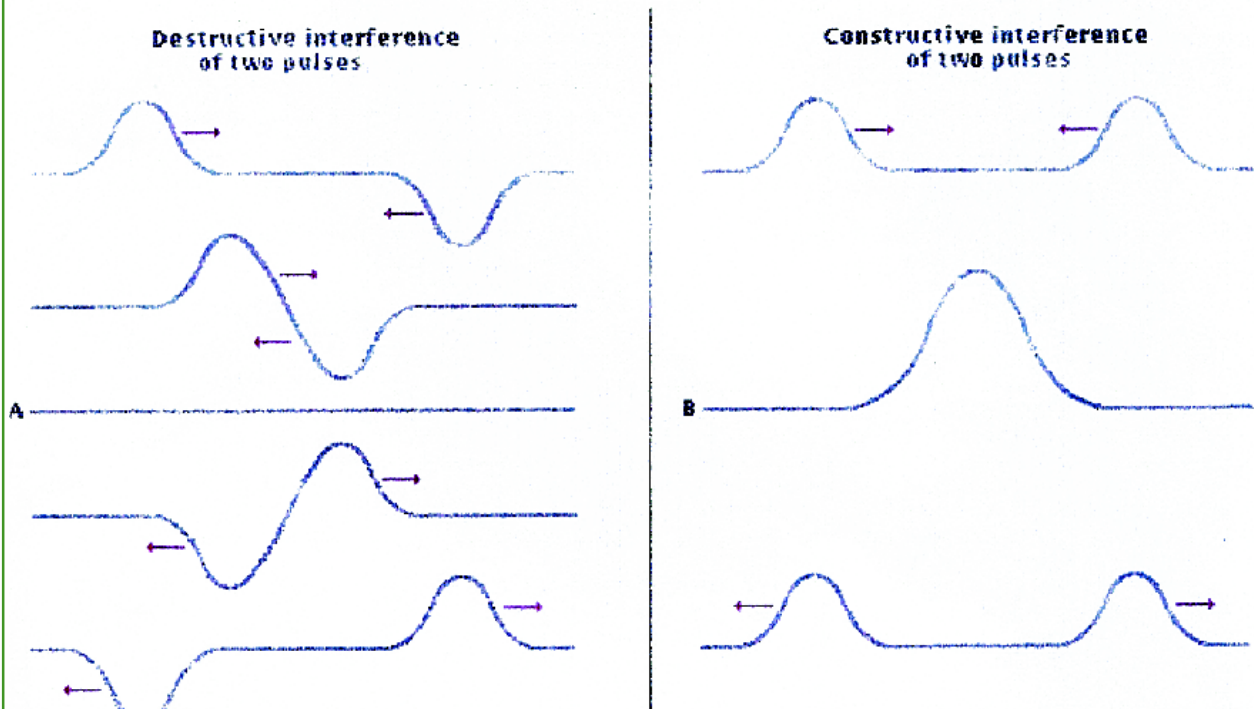
Waves, such as water or sound wave, are a periodic disturbance of the medium through which they travel. For longitudinal waves, the medium is displaced in the direction of travel. For example, air is compressed and expanded in the same direction that a sound wave travels. For transverse waves, the medium is displaced perpendicular to the direction of travel. Ripples on the surface of a pond are an example of a transverse wave: the water is displaced vertically while the wave itself travels horizontally. Earthquakes generate both P (compression, or longitudinal) and S (shear, or transverse) waves, which travel at different speeds and follow different paths. These differences allow seismologists to estimate where the earthquake occurred. Atomic particles and light can be described by probability waves that, while fundamentally different, behave much like the ripples on a pond.



Wave Interference:

When two pulses traveling on a string meet each other, the amplitudes of the pulses are added together to produce the shape of the resulting pulse. If the pulses are identical but travel on opposite sides of the string, then the sum of the amplitudes is zero and the string will appear flat for one instant (A). This is called destructive interference. When the two identical pulses travel on the same side of the string, then the sum of the amplitudes is double the amplitude of a single pulse when the pulses are together (B). This is called constructive interference.

Wave Interference



Interference pattern formed by two point sources involves an interference pattern formed by two rods moving rhythmically up and down in a ripple tank is the subject of an observation of a similar pattern that superimposes itself to form a low trough.

This ends a short discourse before the scope extends beyond the question response.

Sincerely,
Richard Markoll, MD, Ph.D.