Subject: Re: Body Resonance Posted by Wayne Parham on Thu, 27 Jun 2019 15:50:55 GMT View Forum Message <> Reply to Message

The acoustic pulses are directional and are focused on the area of the kidneys. So bones do not receive much energy.

Also, I don't know if the density of the bones is similar to kidney stones or not. While I think common sense says bones are more similar to stones than to soft tissue, I'm not sure that is actually the case because of the marrow and total structure. I just don't know.

I do know this though: While lithotripsy makes acoustic pulses that are optimized to create stress fractures in the stones, the soft tissue isn't totally unaffected. Even if an object doesn't resonate from acoustic energy, it will still vibrate from that energy. Resonance is a condition that magnifies the energy's effects, so things that become resonant are much more affected than things that aren't.

An example is the famous Tacoma Narrows bridge in Washington State. It collapsed on November 7, 1940 from a form of resonance called aeroelastic flutter. The excitation energy was a 40-MPH wind acting upon its surface. This 40-MPH wind obviously affected other structures too, but the Tacoma bridge was most affected because its support structures allowed it to develop a resonant condition.

So objects that aren't resonant by a particular energy because of their size or shape may still be affected by the energy. It's just that resonance is a condition that tends to magnify the effects of the energy.

