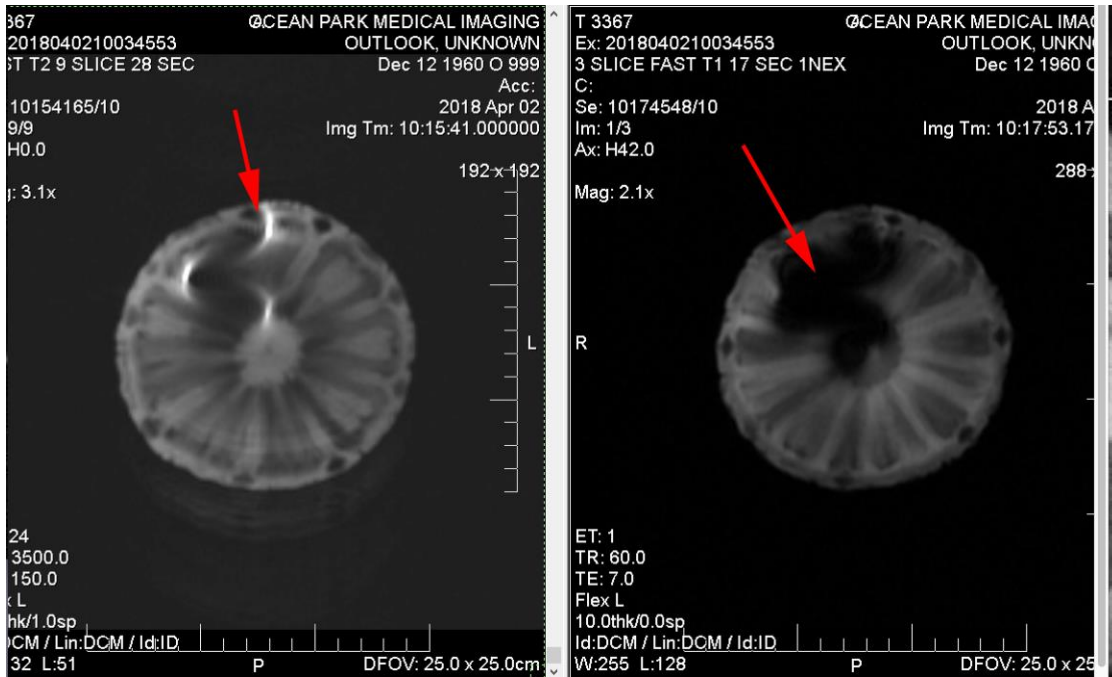


Here, in a demonstration with a pineapple, a very thin steel needle (medical standard 22 guage Chiba Needle) has been entered into the fruit and it is imaged – the result is a large complex distortion blacking out the image near the needle (see red arrows):



This interference and image destruction occurs because MRI scanning (Magnetic Resonance Imaging) depends on very subtle interactions of the magnetic field with the tissues in order to make an image.

However, if an MRI compatible needle from ITP/MSI is used, fabricated from a special alloy, then no artifact or image distortion occurs:



Here, in an image of the pelvis of a person needing treatment of an injury in the obturator internus muscle, the red arrow points out where a KIM MRT 22 gauge needle from ITP has been introduced. There is no distortion or damage to the image, so that the doctor can see exactly the shape and position of the needle in the image. This image was obtained in 12 seconds using an “FFE” sequence (Fast Field Echo), so that a series of images are obtained as the physician gradually advances the needle to the precise location needed.