

Multiple diagnostic procedures assist accuracy

Question: What is an MRI and CAT Scan and why would I get one done instead of X-rays?

Answer: Diagnostic testing utilizing modern technology is expanding at a fast pace. The original static X-ray discovered by German physicist Dr. Wilhelm Roentgen in 1895, revolutionized the health-care field by allowing practitioners to identify pathology in bone tissues. As the “X-ray” evolved it became clearer and well defined in its assistance to health-care providers. The soft tissues such as ligaments and muscles could be differentiated in some cases and along with cross diagnostics in examination, became very helpful in differentially diagnosing conditions.

Radiographic images (X-ray) take a single moment in time and expose that structure onto a permanent imprint. The original X-ray was only productive for a one-dimensional view at a time. Most X-rays require a series of films taken to be considered a successful study.

X-rays next evolutionary step involved multiple single picture X-rays in series. This is called video fluroscopy. Motion of a joint or bone can be observed using this method. The downfall of X-ray is the exposure to radiographic isotopes which can be harmful to the body when excess exposure occurs. Video fluroscopy involves large doses of exposure.

The next invention to utilize picture of the internal body was computerized tomography (CT or CAT) scan. CTs allow the health-care practitioner to view

various slices and angles with multi-dimensional views of the tissues in concern. Many times what was missed on an X-ray could be observed on CT scan. Once again, this diagnostic tool had the health consideration of radiation exposure.

The most modern technology, magnetic radiographic imaging (MRI) has no radiation exposure. The images are very clear and also allow multiple dimensions of the bone tissue and surfaces to be observed. No one diagnostic tool serves as a pure means for finalizing the cause of a condition. Careful physical examination, associated testing, bone scans, and other testing are the most accurate means of differentially diagnosing a condition.

In chiropractic practices we primarily utilize static X-ray views. When any condition, especially a musculo-skeletal one, has any potential for severe disease that is outside of our practice it is proper protocol to refer out for an MRI, CT, bone scan or a combination of these diagnostic tests. A common condition we see in chiropractic offices that requires the assistance of an MRI or CT of the spine are the conditions of a herniated or bulging vertebral disc. Static X-rays give us a good idea if these conditions exist, but MRI and CT are much more accurate to differential diagnose them. Once again, the best results occur from multiple diagnostic procedures.

Quote of the week: “How things look on the outside of us depends on how things are on the inside of us. Remember, there is nothing wrong with nature, the trouble is in ourselves.” – Parks Cousins