



New MRI Technology



The Mayo Clinic has developed a series of magnetic resonance imaging (MRI) devices that will make it easier to diagnose injuries and diseases that affect the wrist, forearm, elbow, hand and fingers. The Mayo Clinic has obtained FDA approval to market these devices, making them available to medical centers nationwide. These devices or MRI Coils are highly sophisticated units used in taking detailed pictures of particular body parts. These produce high resolution images at 1.5 and 3 tesla. Tesla indicates the strength of the main magnetic field used in MRI imaging. High resolution images improve a physician's ability to see small structures such as tiny ligaments and nerves in the hand.

This means more accurate diagnosis of injuries and diseases and in some cases may eliminate the need for diagnostic procedures such as arthroscopy, the visual examination of the interior part of a joint with a special surgical instrument.

This is the first of a series of MRI Coils Mayo is developing to improve the accuracy and thoroughness of imaging diagnoses. The Mayo Clinic has worked with IBM Industrial Design Engineers to optimize the functionality for the benefit of both the medical technician and the patient.

The effort represents years of medical research and a great collaboration between a team of Mayo clinicians and IBM engineers and further collaboration is expected to develop more designs with the goal of improving patient care.

Mayo has been using these Coils clinically for three years to diagnose cartilage degeneration, nerve compression, ligament injuries, tendon abnormalities, tumor detection, bone injuries and scarring within the wrist.

The Coils are being manufactured by IBM in Rochester, Minnesota and will be available to other medical centers in 2004. The revenue Mayo receives from the devices will be used to support Mayo Clinic's Clinical Practice, Medical Research and Educational activities.

As an orthopaedic surgeon using MRI technology on a daily basis in my



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practice, I am looking forward with great anticipation to the increased ability to definitely diagnose conditions that we were only able to guess at in the past.



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Please consult Dr. Haverbush or a physician for specific treatment recommendations.

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