

## Chiropractic Ultrasound Device Patented

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John D. Reid, D.C., of Hayfield, Minnesota was recently granted federal patent 5,078,147 for an ultrasound system he invented, Ultrasound Spine Scan.

Basically, an ultrasound machine measures the speed at which high-frequency sound waves travel through the body, and then it processes that information to create images of what is happening internally. Ultrasound is often used to see the progress of a fetus in the mother's womb.

Dr. Reid said the idea for the ultrasound system resulted from his desire to discover how to find hard-to-detect injuries. After testing numerous diagnostic tools, he came up with the concept of applying ultrasound technology to uncover specific clues about nerve root inflammation which causes muscles to swell. When muscle tissue becomes inflamed, water retention increases, and the inflamed area stands in sharp contrast to the surrounding tissue. According to Dr. Reid, this is important because as the muscle gets more inflamed, the boundary between the effected tissue and normal tissue becomes whiter on the ultrasound screen.

In his Ultrasound Spine Scan system, Dr. Reid was able to incorporate some specific imaging features that would allow it to "see through" the ligaments surrounding the spine.

Dr. Reid, a 1977 graduate of the Northwestern College of Chiropractic (NWCC), began researching the system in 1978 and worked for 12 years to refine the images. When he applied for a patent he found the use of ultrasound in soft tissue imagery had been explored in almost all areas -- with the exception of inflamed nerve roots along the spine.

Unable to interest any of the larger manufacturers in the ultrasound system, Dr. Reid formed his own corporation, which now has about 30 stockholders and is located in Hayfield. Dr. Reid's corporation is currently experimenting with a division that employs technicians to go into the field and do exams for doctors. He said that presently about a dozen DCs are using this mobile service and another four of the systems are in use in the Twin Cities. Dr. Reid reports that bookings for the mobile service are up and that he expects that element to expand even further.

One of the exciting claims of Ultrasound Spine Scan is that it is able to detect the more subtle injuries that can cause back pain, which normally do not show up on standard tests such as MRI or CT scan. Dr. Reid said that practitioners can also use the system to determine whether a patient's pain is caused by a recent injury or an older problem, and thus has potential to expose fraudulent whiplash complaints.

The New York Times ran a story about the new patent on Dr. Reid's ultrasound system in its March 14th issue, and the story was picked up by a number of newspapers: the Rochester Post-Bulletin (Minnesota) and the Orange County Register (Southern California). Dr. Reid, who has been in practice for 15 years (14 of those in Hayfield), said that he has been "swamped" with calls generated by all of

the publicity. He said that he plans to continue devoting all or most his time to his practice.

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APRIL 1992

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