

# 3T MAGNET

## UNLOCKS THE SECRETS OF HUMAN BRAIN DEVELOPMENT

The versatile and innovative 3T magnet, designed by the Lawson Research Institute and IMRIS, a Canadian company, enables clinicians to witness and monitor brain development on three different levels: it looks at physical structures, monitors changes

in blood flow when certain regions are active, and determines the metabolism of brain cells by analysis of normal and abnormal patterns.

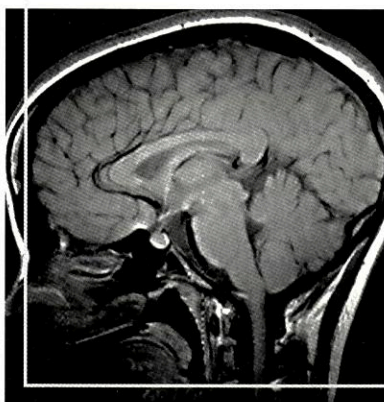
In the premature infant's underdeveloped brain, some blood vessels are not fully formed. As a result, there is a real danger of internal bleeding

which can kill or affect the development of brain cells. Using the new magnet, clinicians will be able to detect the chemistry of brain and blood vessel cells to predict potential hemorrhage and initiate appropriate treatment with early detection. Improved early diagnosis and treatment will minimize or prevent brain damage, such as cerebral palsy, in these fragile infants.

Until now, it simply has not been possible to image the premature infant's brain. The power and nature of the new magnet allows us to safely acquire images at a very early developmental stage, where the information can make a critical difference to the outcome. The new magnet may improve newborn survival rates as well as provide us with answers needed to maintain the quality of a person's health during the cycle of life.

"THE 3 TESLA IMAGING PROJECT CAPITALIZES ON THE PHYSICS AND CLINICAL STRENGTHS OF THE HOSPITAL AND WILL PLACE THE INSTITUTE IN A LEADING POSITION INTERNATIONALLY."

1999 External Scientific Review



MRI image of the brain.