DynaSuite 3.0
Neuro

better images mean better results

Optimized Workflow
DynaSuite Neuro 3.0 from Invivo is a high performance, advanced MR Neuro solution designed for optimal workflow and repeatable analysis for pediatrics and adults. Applications include: perfusion for tumor analysis and stroke, diffusion and diffusion tensor imaging with fiber tracking for stroke and surgical planning, and functional MRI (fMRI) for analysis and surgical planning. In addition, the NeuroQuant option provides volumetrics of key neuro structures to aid in the assessment of dementia, epilepsy and other neurological disorders.

DynaSuite Neuro 3.0 is compatible with major MRI systems. Data sets from the study are processed in the background and registered to a high resolution 3DT1 scan. In each review screen, images are synchronized for easy viewing and correlation. Any anatomical image can be used as an underlay with multiple overlays to easily visualize the fiber tracks, activation areas, vessels, color maps, and the results of other analyses. A region of interest (ROI) can be drawn in any review screen for analytical results of the selected display layer. The preconfigured review screens simplify analysis and enhance workflow.

Smart Fusion Review
The Smart Fusion Review provides the standard multi-planer views plus a 3D reconstruction. The 3D display provides rotation, as well as cut planes, adjustable thresholds and transparency levels. The transparency of the skin layer and cortex in the 3D rendering can be adjusted independently as well for optimal visualization and surgical planning.

Access Anywhere
DynaSuite Neuro 3.0 features a client-server architecture that allows you to access the application anywhere you have a workstation that meets the minimum specification and has adequate bandwidth to the server. Staff members in the MRI control room and radiologists in the reading room or in their offices can access any study on the system, and results created at each location stay with the study. Existing DynaSuite customers can easily upgrade to the new system, preserving their investment and expanding their capabilities.

PACS
MRI
Images are sent to DynaSuite Neuro 3.0 server for image post-processing.
Images reviewed at DynaSuite Neuro 3.0
Clients (unlimited)
DynaSuite Neuro 3.0 result images are sent to PACS for archival and/or a surgical planning system.

Surgical Planning System
Images are sent from the MRI to PAC for archival.

DynaSuite Neuro 3.0 Access Anywhere
A better way for YOU and YOUR patient

brought to you by Invivo

Advanced Neuro analysis with access to studies wherever you need it

Advanced Neuro from Invivo

Advancements in MRI technology and analysis are revolutionizing the way neuro radiologists interpret MRI studies.

Invivo is leading the way with DynaSuite Neuro 3.0; providing analysis of MRI studies for perfusion, diffusion, functional imaging and volumetrics. These applications are integrated and automated in a single easy-to-use package designed for the radiologist.

DynaSuite Neuro 3.0 quickly processes these advanced applications in the background and presents results in a “ready-to-interpret” form in customizable, preconfigured formats. A unique user interface allows clinicians to combine anatomical images and results, such as DTI or perfusion color maps, fiber tracks, and fMRI activations in a single 2D and 3D display. Results can be exported directly to all the major neuro surgical planning systems on the market.

In addition, DynaSuite Neuro 3.0 is available in a client-server configuration, allowing access to study analysis wherever you need it.

It is also the perfect complement to ESys fMRI by Invivo for paradigm delivery.

Michael S. Rafii, MD, PhD
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Associate Medical Director, Alzheimer’s Disease Cooperative Study
Attending Neurologist, Shiley-Marcos Alzheimer’s Disease Research Center, University of California, San Diego

NeuroQuant

The NeuroQuant option for DynaSuite Neuro 3.0 provides automatic computation of volumes of key neurological structures. NeuroQuant provides two reports from its volumetric analysis, an Age Related Atrophy Report and a General Morphometry report. DynaSuite Neuro 3.0 provides special hangings for viewing each report with multi-planar images of the user’s choice.

The Age-Related Atrophy Report contains the absolute and relative volumes of the hippocampus and inferior lateral ventricles, structures that typically show significant atrophy in dementia patients. The resulting values are automatically compared to age-appropriate reference distributions.

The General Morphometry Report provides the absolute and relative volumes for the right and left side of 11 key neuro structures. It also provides an Asymmetry Index (defined as the difference between left and right volumes divided by their mean), which can be useful in assessing epilepsy and traumatic brain injury.
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**fMRI Review**

The fMRI review displays the paradigm time course graph for any selected activation as well as threshold settings for the paradigm for easy adjustment.

The Diffusion Tensor review provides FA and ADC maps as well as the directional color map. All of these maps can be displayed as a layer in other hangings as well.

**Perfusion Review**

The Perfusion Review screens include a four-color map displaying relative Cerebral Blood Volume (rCBV), relative Cerebral Blood Flow (rCBF), Mean Transit Time (MTT), and relative Time To Peak (rTTP). A second Perfusion Review provides the dynamic susceptibility curve on a voxel by voxel and ROI basis. Leakage correction is provided and a unique leakage color map is provided.

DynaSuite Neuro 3.0 is designed to streamline your workflow through automated processes. Its algorithms optimize settings that have been proven in the clinical environment. Comprehensive quality checks are available, however, to provide you with that extra measure of confidence. QC applications allow you to make a visual inspection of the results and make adjustments to positioning or thresholds.

DynaSuite Neuro 3.0 also provides you with the ability to create a “results image series” and a final report. The results images as well as the report can be sent to your PACS system and automatically combined with the original study data. The results images can also be exported to all the major surgical planning systems.

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For more information about Functional MRI or any of the Complete Solution products from Invivo, please call us at 1-800-331-3220, or visit our website at www.invivocorp.com