

# CT Perfusion 4D Neuro

Complete assessment.  
 Confident treatment.  
 Quick, automatic tissue assessment.  
 Easy-to-use, protocol-driven workflow.  
 Smart Map for exquisite functional images.  
 All the information you need. Now.

Perfusion 4D is fast and simple to use, providing automatic tissue assessment of perfusion changes. The protocol-driven design leads the user step-by-step through the process, reducing keystrokes and improving repeatability. So you can get the information you want; quickly and reliably.

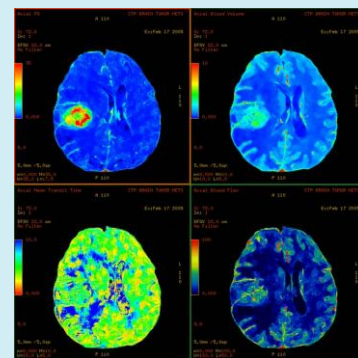
## Overview

GE's Perfusion 4D Neuro is a fast, easy-to-use automated software for analyzing CT Perfusion images related to stroke and tumor angiogenesis. Its simple user interface and fully automated perfusion post-processing make it easy for you to diagnose quickly and accurately – and make treatment decisions more confidently.

GE leverages its de-convolution expertise, with its innovative delay corrected algorithm. Perfusion 4D takes perfusion assessment to the next level, with a new Smart Map that creates noise-reduced functional maps while preserving

## What's new

- Improved IQ of functional maps in presence of noise.
- Streamlined workflow for tissue classification.
- Permits injection rates of 4cc/sec.
- Features CT brain stroke and tumor protocols.
- Offers a variety of functional maps.



Visit us:

[www.gehealthcare.com/aw/applications/ct-perfusion-4d/](http://www.gehealthcare.com/aw/applications/ct-perfusion-4d/)



## Features

- Visualize all information in true volumetric form with the ability to employ all the volumetric-based image analysis tools in the AW Volume Viewer.
- Smart Maps using the intelligent 4D noise suppression algorithm improves functional map image quality in the presence of noise.
- Streamlined tissue classification and visualization incorporates thresholding of Blood Volume with any one of Tmax, MTT or Blood Flow.
- Productivity enhancements include:
  - Automated vessel detection
  - Progressive functional maps computation.
  - Volumetric visualization of functional maps
  - Access from anywhere using AW Server.
- Many basic features, including the ability to:
  - Process double phase acquisition data.
  - Create 4D ROIs.
  - Display ROI statistical information.
  - Display averaged time intensity information of an ROI.
  - Simultaneously review any number of functional maps.
  - Customize protocols
  - Save parameters.
- Fully integrated CT brain stroke protocol that performs the following algorithmic steps:
  - Image registration
  - Bone removal

- Arterial input
- Venous output
- Last pre-enhancement/first post-enhancement image
- Final settings and compute
- Fully integrated CT brain tumor protocol.
- Functional maps:
  - Regional cerebral blood volume
  - Regional cerebral blood flow
  - Regional mean transit time
  - Contrast arrival delay
  - Transit time to peak of impulse residue function
  - Capillary permeability surface area
  - Base image
  - Average image

## Operation Summary

1. Select and load image data set.
2. Automatic detection of the Artery and Vein ROI's.
3. Display and plot time-intensity information.
4. Create parametric image.
5. Overlay functional map onto reference image.
6. Display functional data.
7. Save and print processed data.

## System Requirements

- AW Workstation Volume Share 5 or higher.
- AW Server.

## Recommendations:

- 12GB RAM
- 2 display monitors (also compatible with single monitor).

## Indications for Use

CT perfusion 4D is an image analysis software package that allows the user to produce dynamic image data and to generate information with regard to changes in image intensity over time. It supports the analysis of CT Perfusion images, obtained by cine imaging (in the head and body) after the intravenous injection of contrast, in calculation of the various perfusion-related parameters (i.e. regional blood flow, regional blood volume, mean transit time and capillary permeability). The results are displayed in a user-friendly graphic format as parametric images. This software will aid in the assessment of the extent and type of perfusion, blood volume and capillary permeability changes, which may be related to stroke or tumor angiogenesis and the treatment thereof.

## Regulatory Compliance

This product complies with the European Council Directive 93/42/EEC Medical Device Directive as amended by European Council Directive 2007/47/EC



GE imagination at work