

BRAIN PERFUSION CT (Selected TOSHIBA Scanners)

GENERAL: This protocol may include an optional, non-contrast-enhanced head scan and/or an optional head CT angiogram Center the table height, such that the external auditory meatus is located at the center of the gantry.

CONTRAST: Oral: None.

IV: 50 mL of 370 mg/cc concentration contrast media @ 5-6 mL/sec followed by 50 mL saline at 5-6 mL/sec

Preferred injection site: 18–20 gauge IV placed in right antecubital vein

SCANOGRAM: PA and Lateral, 240 mm coverage, 120 kV, 50 mA. caudo-cranial direction.

(CT Radiograph)

BRAIN PERFUSION CT:

This scan is performed for 60 seconds.

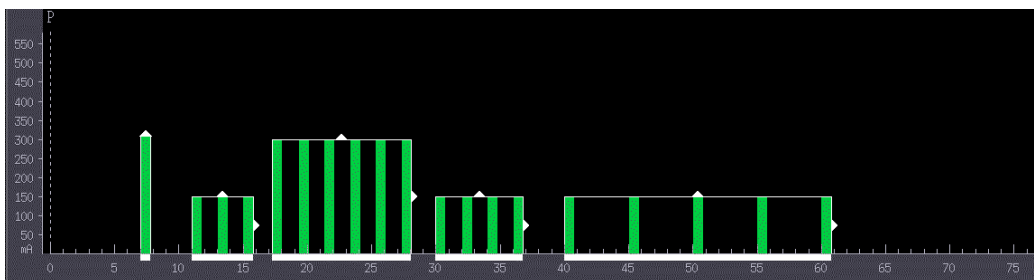
The radiologist will determine the scan range, referring to any previously-acquired (optional) scanned series for the Aquilion Premium. For the Aquilion ONE, the entire head is covered.

Toshiba	Aquilion Premium	Aquilion ONE
Scan Type	Dynamic Volume Intermittent	Dynamic Volume Intermittent
Rotation Time (s)	0.75	0.75
Table Motion	None	None
Collimation	160 x 0.5mm	320 x 0.5 mm
Coverage per Rotation (mm)	80	160
Scan Range (mm)	80	160
Acquisition Interval*	2 s initially, then 5 s	2 s initially, then 5 s
kVp	80	80
mA*	150	300 (arterial phase), 150 (elsewhere)
^{SURE} Exposure	OFF	OFF
Scan Field (mm)	240	240
Delay after injection (s)	7	7
Scan Time (s)	53	53
CTDI-vol (mGy)	122	162

RECONSTRUCTION	Aquilion Premium	Aquilion ONE
Start	Radiologist selects location	Below base of skull
End		Vertex
Kernel	41	41
Slice (mm)	0.5	0.5
Increment (mm)	0.5	0.5
FOV (mm)	240	240

Perfusion computations are performed on an image-processing workstation after scan completion.

*The image below shows the scan protocol for the Aquilion ONE. Each green bar represents a volume scan. The mA is increased for the arterial portion of the scan to provide improved image quality for the digitally subtracted angiogram (DSA) image.



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