



SIMPeds3D Print: OPTIMAL IMAGING SPECIFICATIONS BY ANATOMY

	Modality (CT, MR, etc)	Slice Thickness (mm) isotropic [unless otherwise specified]	Phase
CARDIAC SURGERY			
Heart	CT	< 1.0	CTA [optimized for visualizing both ventricles]
	MR	1.5	MRA [ideally Ablavar, but can use either Gadavist or Magnevist MRA as well]
NEUROSURGERY			
Brain	MR	≤ 1.0	Sag vol. T1 MPRAGE/SPGR
Arteries	MR	≤ 1.0	MRA
Veins	MR	≤ 1.0	Venogram post contrast/SPGR
Skull	CT	0.7	
	MR	≤ 1.0	T1 MPRAGE Volumetric
ONCOLOGY			
Bone	CT	≤ 0.7	
Tumor/Mass	CT	≤ 1.0	Fluid T2 Post Contrast
Muscle	CT	≤ 1.0	T2 MPD
Nerve	CT	≤ 0.7	Volumetric T2 Space FIESTA
OPHTHALMOLOGY			
Eye	MR	≤ 2.0	T1 weighted & T2 Space
OTOLARYNGOLOGY			
Skull	CT	≤ 0.7	
Tumor/Mass	CT	≤ 1.0	Post contrast
	MR	≤ 1.0	T1 Volumetric post contrast
ORTHOPEDIC SURGERY			
Bone	CT	≤ 1.0	
Vertebral Discs	CT or MR	≤ 1.0	T2 weighted
Cartilage	MR	≤ 1.0	3D Medic, Sag 3D space
Ligaments	MR	≤ 1.0	Sag 3D space
Muscle	MR	≤ 1.0	Sag 3D space
Vasculature	MR	≤ 1.0	MRA and post contrast volumetric isotropic
PLASTIC SURGERY			
Skull	CT	≤ 1.0	
Nerves	CT	≤ 0.7	Volumetric T2 Space FIESTA
SURGERY			
Organ (liver, kidney, etc)	CT	≤ 1.0	Fluid T2 Post Contrast
Tumor/Neuroblastoma	CT	≤ 1.0	Fluid T2 Post Contrast
Vasculature	MR	≤ 1.0	MRA and post contrast volumetric isotropic
Cartilage	MR	≤ 1.0	Medic Sag 3D space
Bone	CT	≤ 0.7	

Please contact [Dr. Sanjay Prabhu](#) with questions.