The *Brain* section of this book is the largest and covers a combination of normal variants, normal anatomy, and artifacts that can mimic disease. Although there is an attempt to organize such normal variations by region or anatomic structure, such a classification is inherently problematic because some normal variants can be in multiple locations (e.g., choroid plexus or dilated perivascular spaces), while some commonly encountered artifacts can occur anywhere in the brain (e.g., flow voids). Thus, this section of the book is generally organized starting from inferiorly at the skull base to more superiorly, while normal variants that can occur anywhere in the brain are generally placed in the middle. Also, artifacts or magnetic resonance related sequence phenomena that may simulate disease are placed toward the end of this section.

Some basic terminology and abbreviations regarding standard sequences is necessary, since magnetic resonance imaging (MRI) manufacturers unfortunately have not adopted one standard for sequences outside of the routine ones such as T1-weighted images, T2-weighted images, fluid-attenuated inversion recovery (FLAIR), and diffusion-weighted images. Thus, standard terminology used throughout this section and the remainder of the book is described below.

1.1 Terminology

1.5 T and 3 T 1.5 Tesla and 3.0 Tesla MRI magnet field strengths

3D	Three dimensional
BFFE	Balance FFE (similar to CISS)
CECT	Contrast-enhanced computed tomography (CT)
CISS	Constructive interference in steady state, similar to T2WI, emphasizes cerebrospinal fluid hyperintensity
DWI	Diffusion-weighted image
FFE	Fast field echo (either T1- or T2-weighted)
FLAIR	Fluid-attenuated inversion recovery imaging
GE	Gradient echo
GE T2*WI	Gradient echo T2*-weighted imaging
IR	Inversion recovery imaging
T1IR	T1-weighted IR imaging
T2IR	T2-weighted IR imaging
MiniP	Minimum intensity projection
MIP	Maximum intensity projection
MPR	Multiplanar reformat
MRA	MR angiography
TOF MRA	Time-of-flight MRA
NECT	Non-enhanced CT
SWI	Susceptibility-weighted imaging
T1WI	T1-weighted imaging
T2WI	T2-weighted imaging
T2*WI	GE T2*WI
US	Ultrasound