

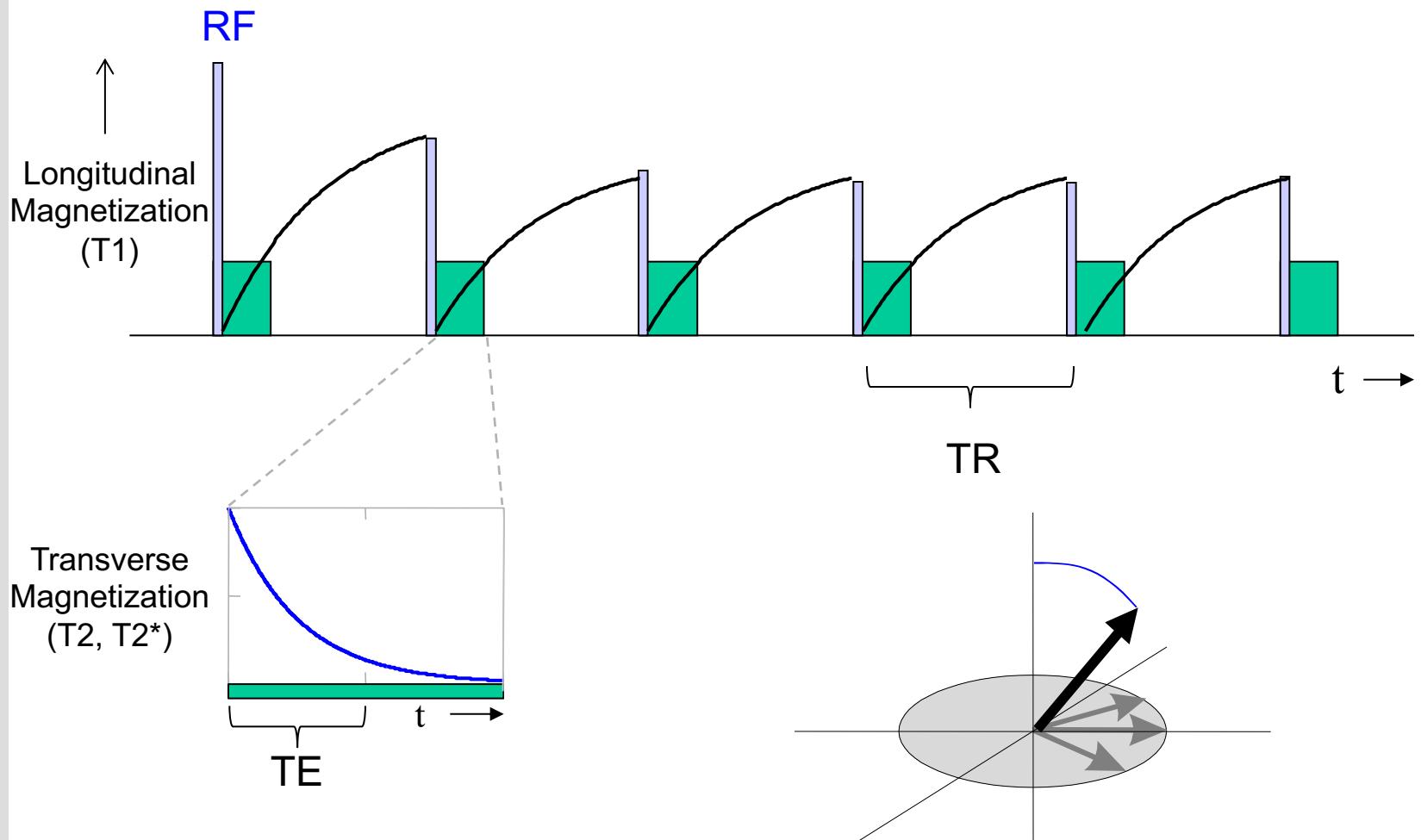


MRI pulse sequences for neuroimaging research

additional RF pulses

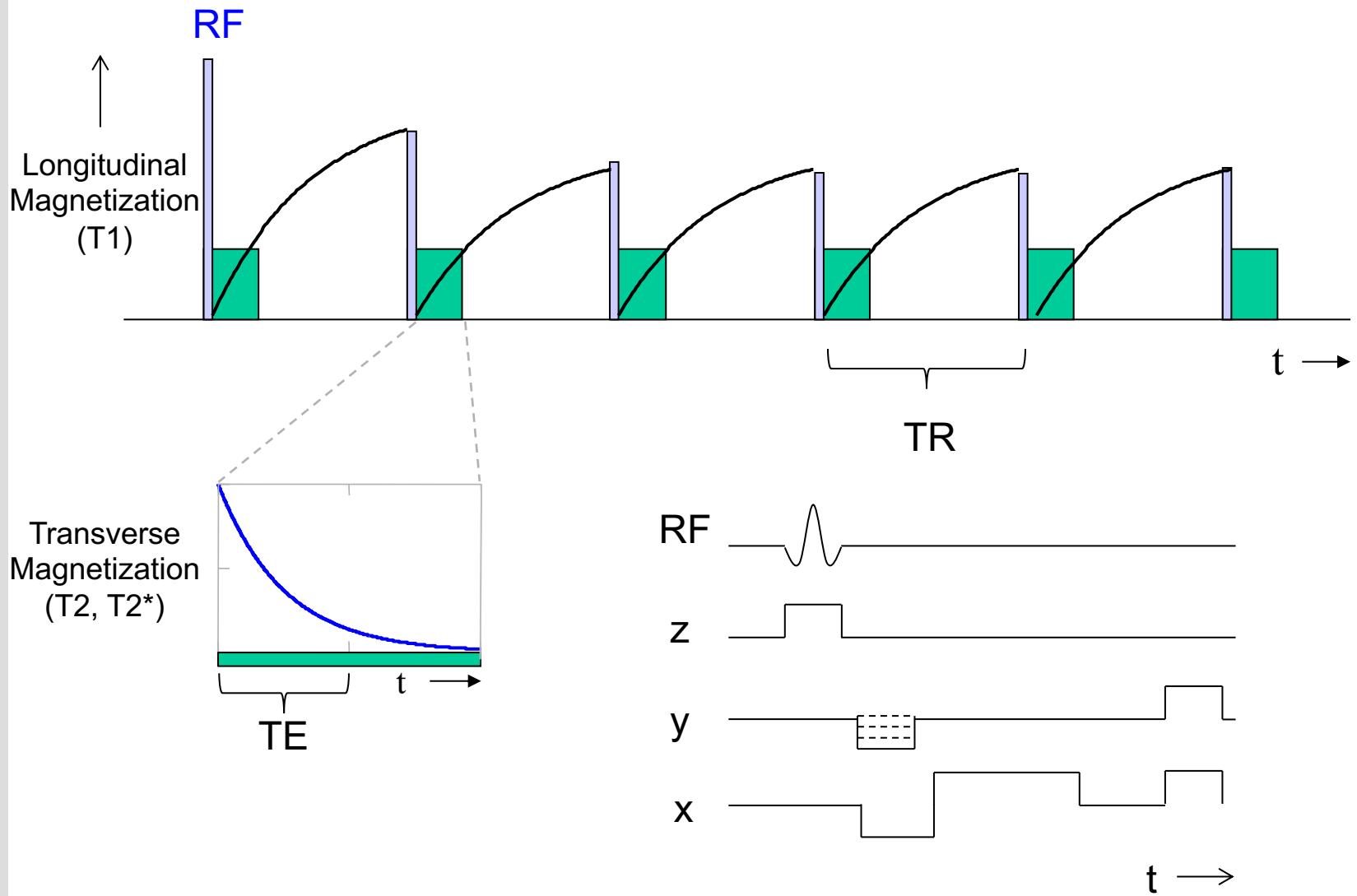


Crusher gradients



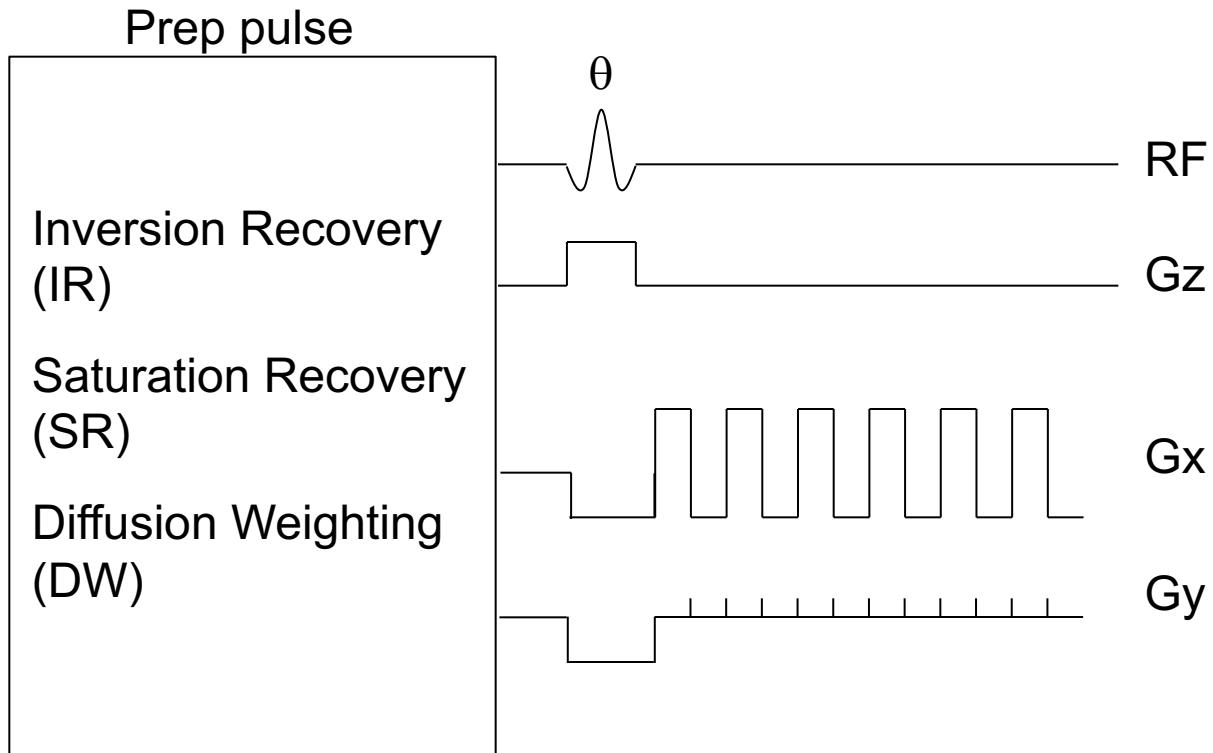


Crusher gradients





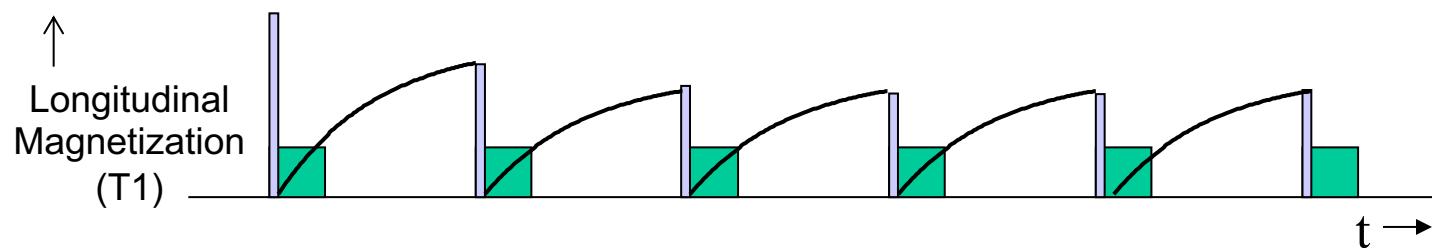
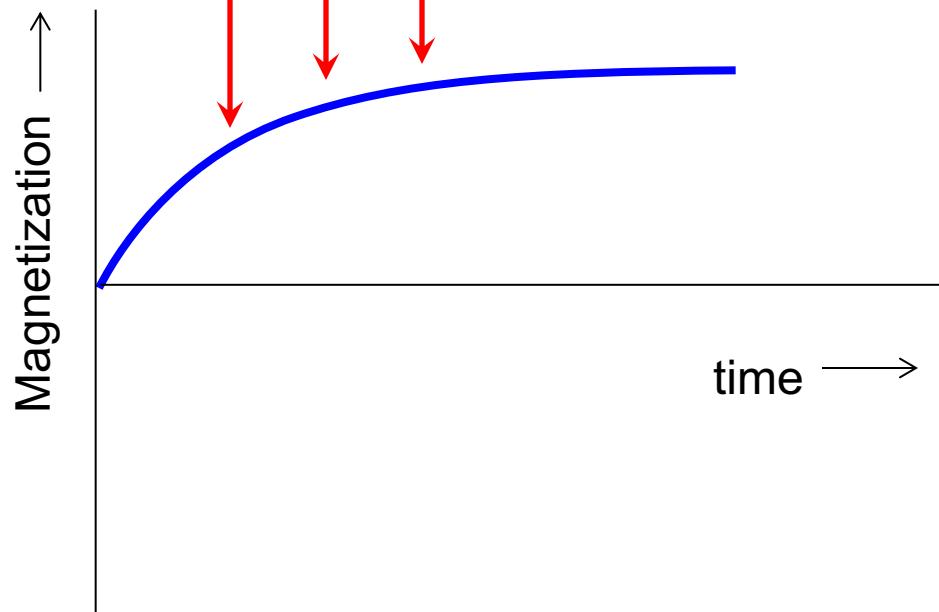
Preparation pulses





T1 weighting – via preparation pulses

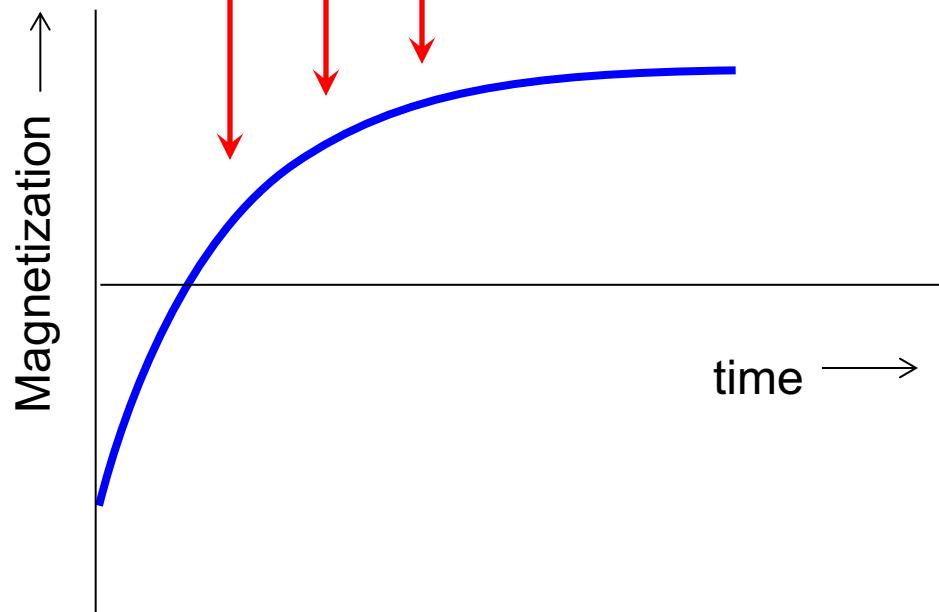
Apply 90° pulse
↓
Acquire image some short time later





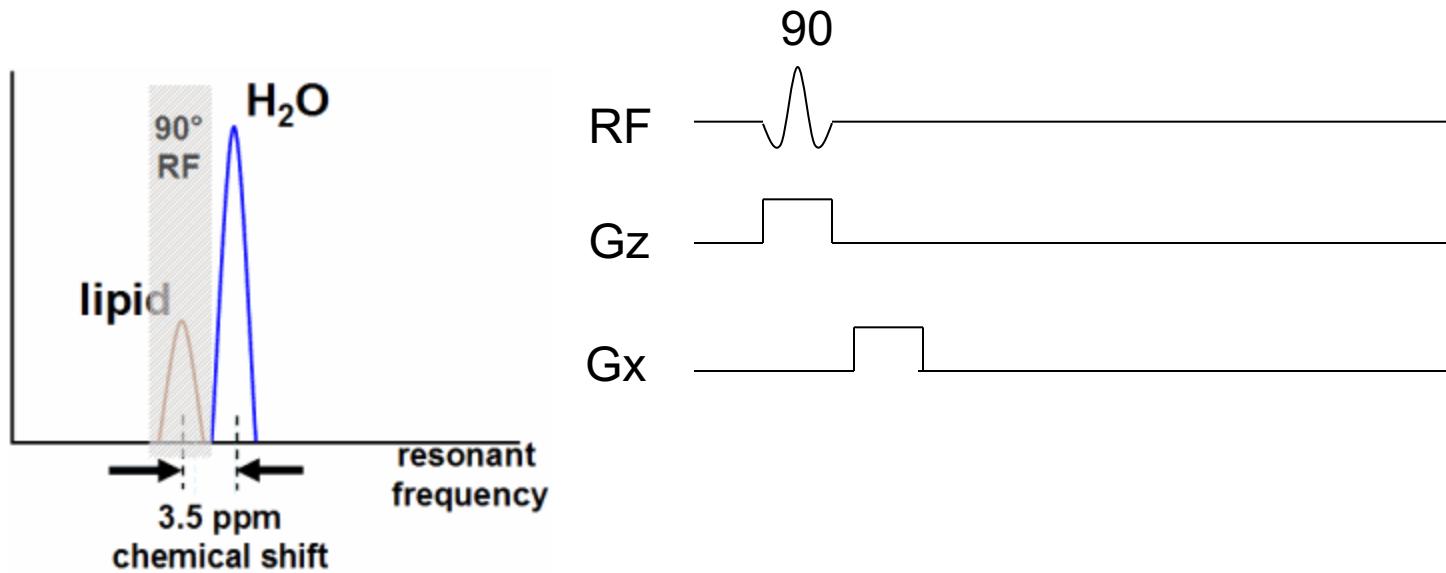
Inversion recovery

Apply 180° pulse
↓
Acquire image some short time later





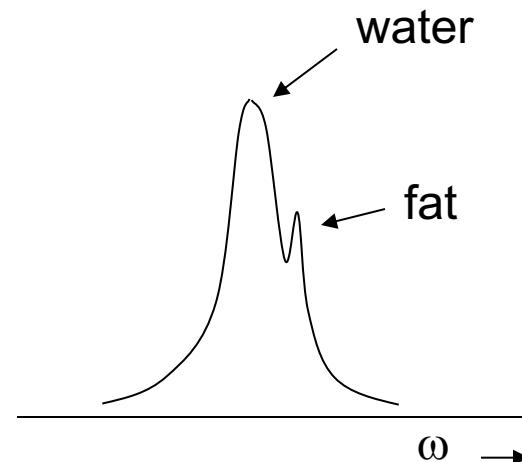
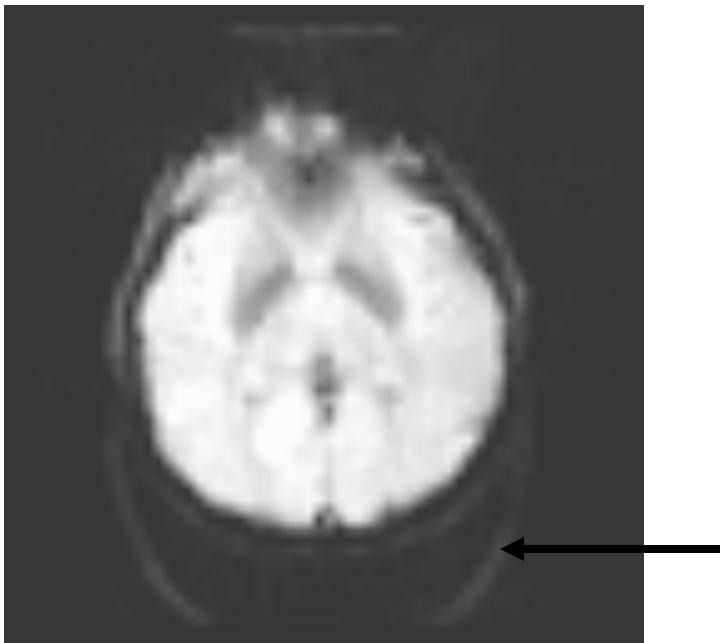
Fat suppression





RF – Fat suppression

- *Ghost image of the fat, displaced in the phase-encode direction*

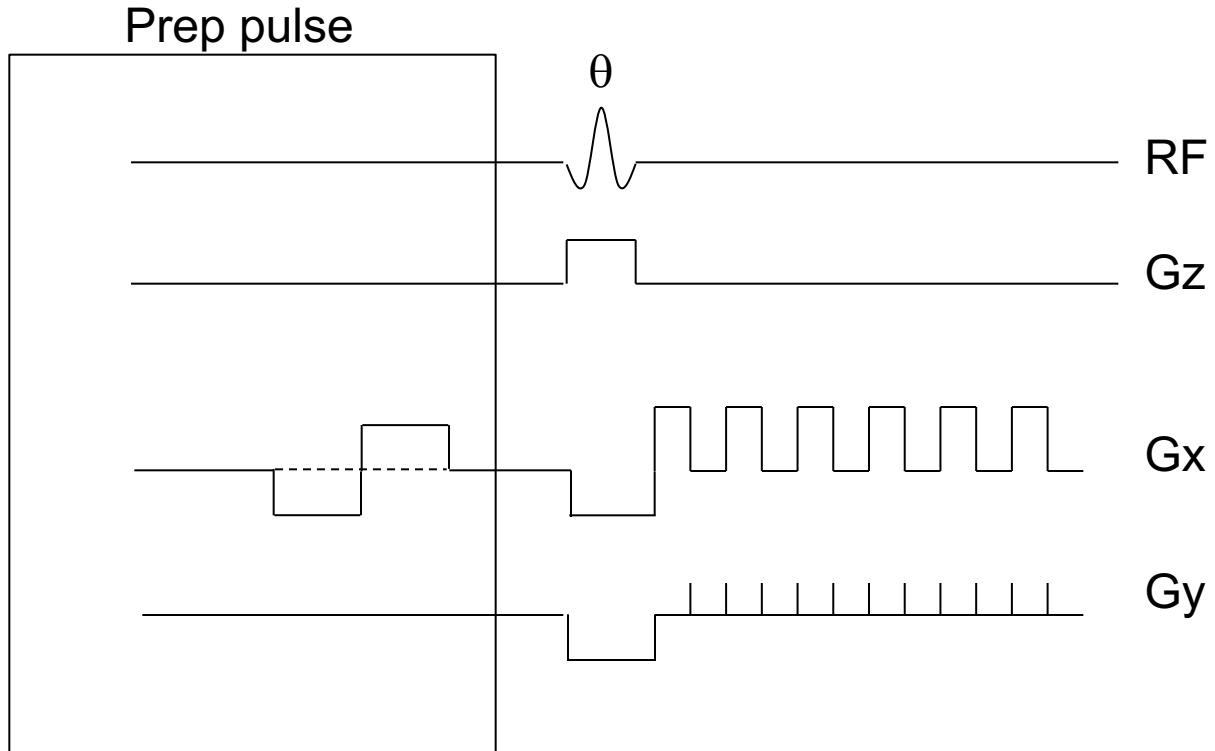


Solution:

- turn on fat suppression
- improve shim



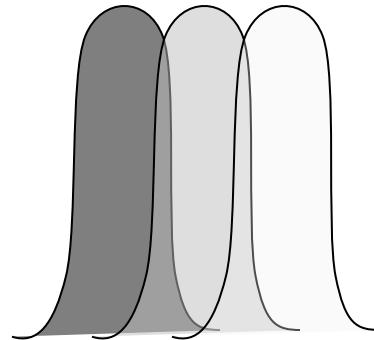
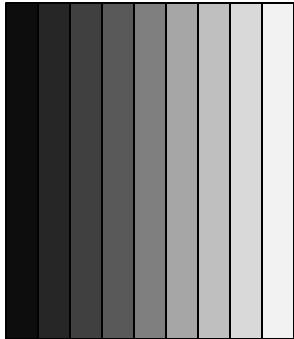
Motion (Flow, Diffusion) weighting





Slice acquisition

Sequential



Interleaved

