

Velopharyngeal MRI Protocol

Patient Positioning

- Fish oil capsule taped to right temple (RT), if available
- Position head/neck straight with no extension, flexion, or rotation of the head; as far up in coil as possible.
- Localize to nose tip (not nasion)

Running MRI Sequences

Patient Instructions: "Ok now we are going to start. You will start to hear the noises, hold as still as a statue"

Localizer: Ensure FOV covers whole head & localized to the region of interest-the oral and nasal cavities & throat

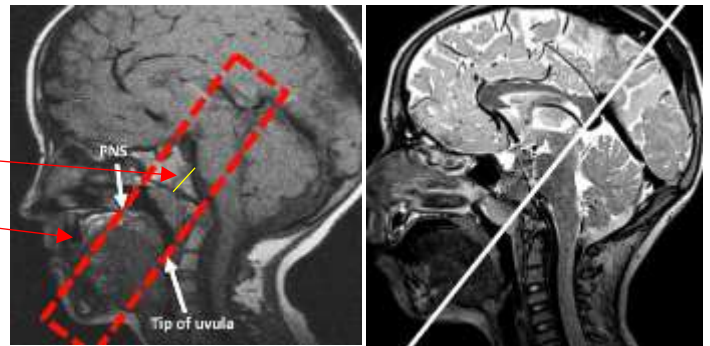
3D Sequence: Collect in the mid-sagittal image plane with patient at rest (lips sealed and patient breathing through nose)

2D rest mid-sag: Sagittal image should cover from one side of the throat to the other

2D rest oblique coronal (OC)

Setting up slice

- Slices should run parallel with the sphenoid-sphenoidal synchondrosis (yellow line)
- Make sure box covers from the posterior aspect of the hard palate to the tip of the uvula (red box)
 - Sequence must run in >8 seconds - never add more slices – cut off the back of the soft palate as needed
- Usually this plane is at 50-55 degrees vertical axis (40-45 degrees in older kids and adults)
- ****Confirm you see the "U" shaped muscle**

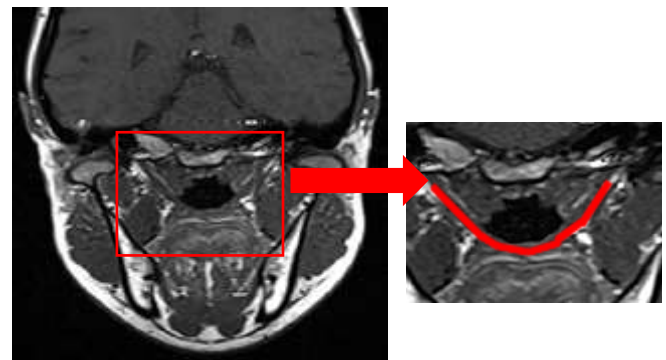


Once you have established the correct angle for the oblique coronal, COPY the angle and these parameters exactly to the "ee" and "ss" OC

2D eee sag: Ensure the patient said the correct sound and for the required length of time by observing tongue position & listening to them through microphone/speaker

Patient Instructions: You're doing really great! We will now say our sounds that we practiced. When I say go, you will hold out the 'eee' sound. Keep saying the sound until the noise turns off."

[pause] "Ready, take a deep breath, and go"; **Immediately start the scan**



2D eee oblique coronal (run same as above OC)

Patient Instructions: You're doing really great! We are going to do that same 'eee' sounds just like you did. Ready, take a deep breath, and go"; **Immediately start the scan**

2D sss sag (run same as above sag)

Patient Instructions: "When I say go, you will hold out the 'ssss' [model sound] sound. Keep saying the sound until the noise turns off." [pause] "Ready, take a deep breath, and go"; **Immediately start the scan**

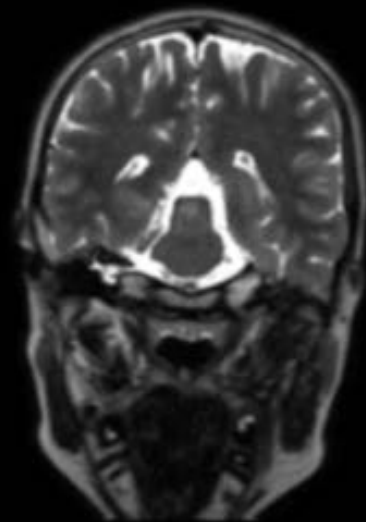
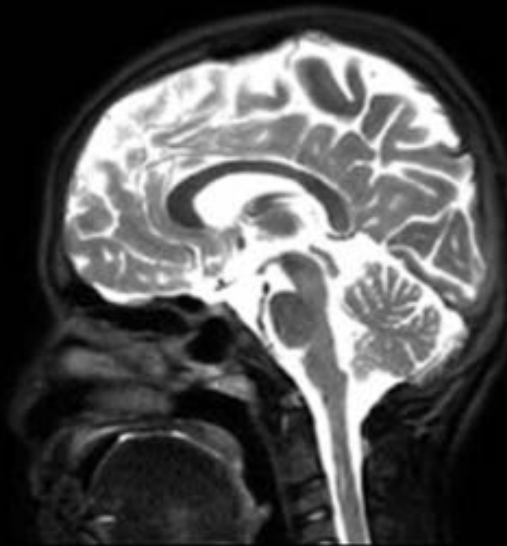
2D sss oblique coronal (run same as above OC)

Patient Instructions: You're doing really great! We are going to do that same 'ssss' sounds just like you did. Ready, take a deep breath, and go"; **Immediately start the scan**

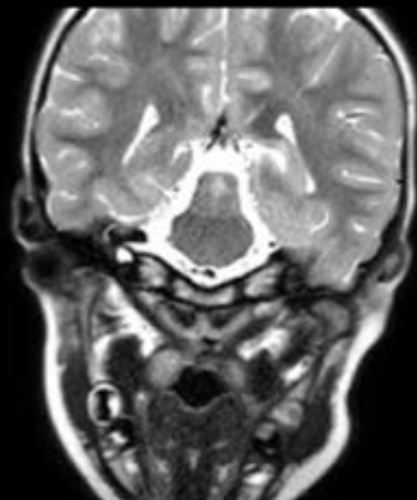
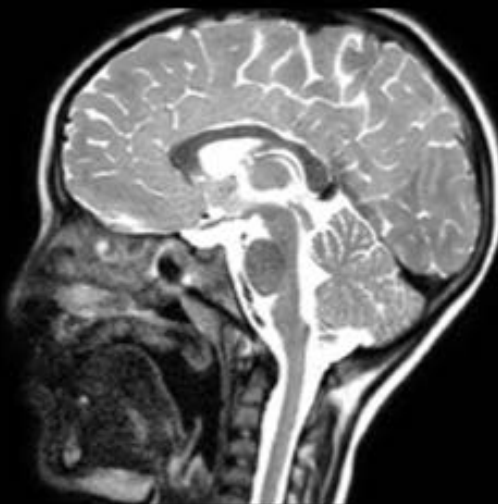
Sagittal

*Oblique
Coronal*

Rest



/i/



/s/

