

C.T. Scan of the Temporomandibular Joint

- Spiral CT- (No Contrast) (revised 5/09)

_____ date

Please evaluate _____

Significant History: See Exam Form

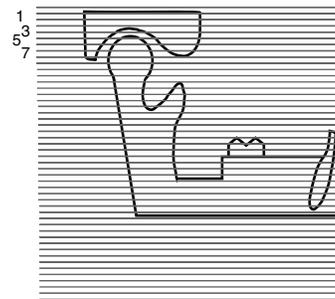
- | | |
|---|-------|
| <input type="checkbox"/> Facial Pain | 784.0 |
| <input type="checkbox"/> Avascular Necrosis | 526.4 |
| <input type="checkbox"/> Osteoarthritis | 715.2 |

- Do not take scan if not able to send DICOM images to me.
- Must be a spiral CT scanner, 16 or 64 slice. Do not show the head holder in any images.

1. Please review the "Patient Instructions" with the patient before starting the scan.

2. Axial C.T.

- Head stabilization to prevent movement, pads on zygoma
- Superior-Inferior
- Bone Algorithm/ No contrast
- Teeth together. If patient has Dr. Droter's appliance, that is to be worn.
- 1mm slices or less. The smaller the better.
- Start 5 mm superior to the roof of the TMJ fossa and continue down to include the hyoid bone and C4
- Be sure to capture the tip of the chin and the back of the Occipital Bone

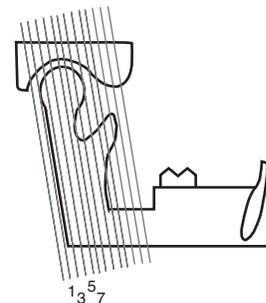
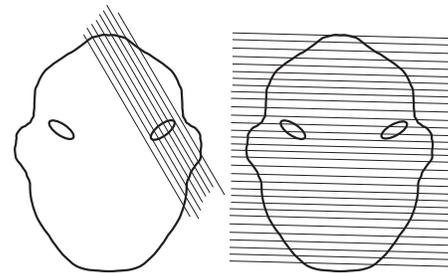


3. Reconstruct Coronal and Corrected Sagittal Views off of the Axial Scan

- 1mm slice thickness or less

If Checked: Direct Coronal C.T.

- Head stabilization, 2/3 weight on zygoma, 1/3 on chin
- Force on chin is superior not posterior
- Teeth together. If patient has Dr. Droter's appliance, that is to be worn.
- Bone Algorithm/ No contrast
- PA, both right and left TMJ in same slice.
- 1mm slices or less. The smaller the better.
- Start behind auditory canal and continue past the crest of the eminence.
- This usually takes about 25 slices
- Align slices so they are parallel with the posterior ramus



4. Printed images not acceptable. Must be Dicom digital images.
Do not take the scan if you can not send DICOM images.

5. Please be sure to have the radiologist read "Notes to the Radiologist" for what I need in the report.

THANK YOU

MRI Scan of the Temporomandibular Joint

_____ date

Please evaluate _____

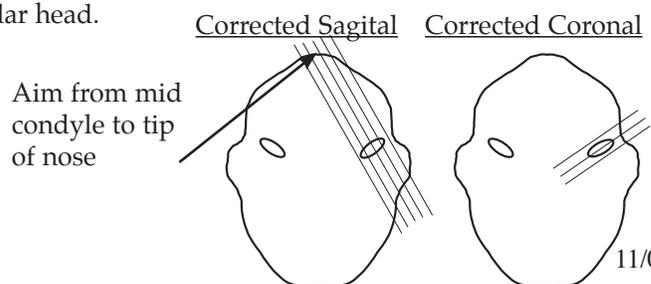
Significant History: See Exam Form

- Facial Pain 784.0
- Avascular Necrosis 526.4
- Osteoarthritis 715.2

- Printed images not acceptable. Must be DICOM Digital Images
- Do not do scan if not able to do DICOM Digital Images
- Use TMJ coils. Use 1.5 Tesla magnet. Do not use an open MRI. Do not use a short flip angle.
- Show orientation views
- Closed views are with teeth together.
- Use a roll of tape (3M Transpore Tape 1 inch wide) for the open view. The roll is two inches in diameter. Have patient open as wide as they can comfortably and place the tape roll as far back as possible with the flat side toward the teeth. They should be biting into the tape with their back molars on both sides.
- Copy DICOM images to a CD and give to patient or mail to me FedEx.
- Patient has wax index to wear on teeth to stabilize jaw for closed view.
- Patient has appliance that is to be in for all closed views.
- Gave Rx for _____. They will take it 1 hour before scan.
- Patient to get braces off molars before scan. No orthodontic wire in place.

1. T1, mouth closed, corrected sagittal projection, right and left TMJ.
8 or more views: lateral, medial, 4 cuts through condylar head.
2. T2 scan mouth closed, corrected sagittal projection, right and left TMJ.
8 or more views: lateral, medial, 4 cuts through condylar head.
3. STIR (T1 inversion recovery) corrected sagittal projection, right and left TMJ.
8 or more views: lateral, medial, 4 cuts through condylar head.
4. Proton Density, mouth closed, corrected sagittal projection, right and left TMJ.
8 or more views: lateral, medial, 4 cuts through condylar head.
5. Proton Density, mouth closed, corrected coronal projection, right and left TMJ.
8 or more views: in front of condylar head, through condylar head, behind condylar head.
Be sure to get at least one slice medial, and one slice lateral to condylar head.
6. Proton Density, mouth open fully, corrected sagittal projection, right and left TMJ.
8 or more views: lateral, medial, 4 cuts through condylar head.
Use roll of tape for open view as described above.
Take this view last.

Thank You



Patient Information for MRI and CT Scans

1. **Hold Still:** The quality of the pictures is dependent on how still you can remain during the scan. Holding completely still for several minutes is very difficult and will take some determination.
2. **Be comfortable. Say something if not:** If you are not comfortable with how the technician has placed you, speak out before the scan starts. Do not allow the scan to start until you are comfortable.
3. **Teeth together:** The CT and MRI scans will be done with your teeth comfortably together. One of the MRI scans is done with the mouth in the open position. One of the CT scans is done with you laying on your stomach with your head bent back so you are looking ahead. Make sure that your teeth are together and the lower jaw is not shoved forward or back.
4. **Be Careful Swallowing.** When you swallow, your jaw can move. After the technician positions you on the table, they have a fair amount of set up to do before they take the actual scan. When it is time to hold still they will let you know. Do not move your jaw if you have to swallow when they are taking the scan
5. **Ask.** If you have any questions or concerns please ask.
6. **Take CD:** After your appointment they will give you a CD with the scans on it. You will need to bring the CD with you to your consultation appointment. If you are able to drop the CD off before your appointment, that would be helpful.

THANK YOU

CT and MRI Scans of the TMJ

Notes to the Radiologist

Please rule out:

Osteoarthritis, avascular necrosis, osteochondritis dissecans, marrow edema, synovitis, cystic degeneration, cancer

CT Scan- Normal

Cortex intact- No cysts, no hypercalcifications

Intermedullary bone has a good pattern

Normal Size and shape of right and left condyle (70% condyle to fossa)

Non congruent ovoid shape of condyle with respect to fossa

No flat areas

CR Load Zone- Right and Left Condyles load on superior medial condyle

Closest bone distance between the condyle and fossa is at superior medial articular surface

Right and Left Condyles are centered medial-laterally. The Mandible sits centered under the skull base

The inferior border and angle of the mandible on the right and left are equidistant to the fossa

Right and left Condyle are centered in fossa in sagittal axial, and coronal views

The joint space indicates adequate room for a disc

No lesions or tumors in the TMJ and surrounding areas

MRI- Normal

Disc is in a proper position on both the medial and lateral pole

If not; Off both medial and lateral? Where is it? Size of disc?

Recaptures? Does Disc move in open view (Adhesed?)

PseudoDisc formation (fibrosis)?

Cortex intact- No cysts, No areas indicative of either sclerotic or necrotic bone

Normal Size and shape of right and left condyle (70% condyle to fossa)

Non congruent ovoid shape of condyle with respect to fossa

No flat areas, No lipping

Right and Left Condyles are centered anterior-posteriorly in fossa

No edema in the joint, synovial tissue or bone marrow on the T2 and STIR images.

No lesions or tumors in the TMJ and surrounding areas

