

Kyle Braxton

Time of scan: 20 Nov 2023, 09:45AM		Item: Comprehensive whole body scan	
Sex: Male	Height: 6' 1"	Weight: 202 pounds	Date of Birth: 1983-11-10
Referring Clinician: Marissa Casey	Facility: Prenuvo Silicon Valley	Reason For Scan: Being proactive	

TECHNIQUE:

Head: Flair, TOF, 3DT1; Neck: Axial T2; Whole-body: T1, STIR, DWI; Spine: Sagittal T2; Chest/Abdomen/Pelvis: axial T2; Abdomen: Axial T2, Pelvis: Ax T2 Small FOV, DWI

DISCUSSION:

The Prenuvo whole-body MRI screening: (1) can serve as an adjunct to, but is not intended to replace, other established evidence-based screening practices for early detection of specific malignancies (e.g. colonoscopy, dedicated breast imaging, Pap-smear screening for cervical cancer, low-dose chest CT for high risk patients), (2) is effective for visualization of solid lesions on the order of 1 cm or larger within the head, neck, chest, abdomen, and pelvis. As with any medical test, there are limitations, which make it impossible to detect all malignancies and disease conditions, (3) is generally sensitive and specific for detection of cerebral artery aneurysms on the order of 3 mm or greater in size, (4) does not evaluate the heart or heart vessels, (5) does not evaluate lung microarchitecture or pulmonary micronodules, (6) does not replace dedicated breast imaging for screening or diagnostic evaluation (e.g. mammography, breast ultrasound, breast MRI with contrast), (7) is limited in the evaluation of the gastrointestinal tract and does not replace endoscopy or colonoscopy (e.g. cannot detect bowel polyps), (8) is limited in its assessment of the large joints as the exam is not tailored for detailed evaluation of the joint ligaments, cartilage, menisci, and labrum, (9) should not be considered a primary screening modality of the skin. This is best assessed by direct physical examination, (10) is not intended to replace dedicated diagnostic imaging in the setting of specific clinical diagnostic questions.

COMPARISON:

The patient had a previous scan on 06 December 2022. Key observations: Prior Prenuvo scan.

FINAL IMPRESSIONS:

1. No new concerning findings since prior Prenuvo scan on 12/6/22.
2. Previously seen minimal liver steatosis is not appreciated on this exam.
3. Stable advanced degenerative changes of the cervical spine and mild degenerative changes of the thoracic and lumbar spine.
4. Please refer to full report for additional minor findings which are of low clinical significance.

NEXT APPOINTMENT:


A follow up scan in 24 months is suggested for further proactive health unless clinically indicated sooner.

REPORT RECIPIENT(S):

Ramona Peterson

FINDINGS:

Head and Neck




Brain

2 informational findings

The following was identified, and is generally unchanged from your previous study.

There are a few nonspecific T2/FLAIR hyperintensities within the white matter.

- There are lesions located in the left side of your brain.
- Within normal limits for age.




No action is necessary at this time.

• This can be reassessed on your next scan.

See Figure 1

There is a vascular normal variant configuration.


- There is a hypoplastic left anterior cerebral artery A1 segment of the circle of Willis.



This is a normal anatomic variant and no action is required.

• This information is only relevant if you were to need brain surgery in the future.

No evidence of proximal intracranial arterial aneurysm.
No worrisome intracranial lesion is identified within the brain parenchyma.
The generalized brain parenchyma volume is normal for age.



Sinuses and mastoids

No adverse finding

The paranasal sinuses are clear.
The mastoids are clear.



Nasal pharynx
No adverse finding

No worrisome mass is identified.



Oral pharynx
No adverse finding

No worrisome mass is identified.



Hypopharynx
No adverse finding

No worrisome mass is identified.



Thyroid
No adverse finding

No worrisome lesion is present within the thyroid.



Cervical lymph node chain
No adverse finding

No adenopathy is present.

Chest, Abdomen and Pelvis



Lungs and mediastinum
No adverse finding

No restricted solid mass is identified within the pulmonary parenchyma.
There is no mediastinal or hilar adenopathy.



Heart and great vessels

No adverse finding

Within the limitations of nongated cardiac MRI, no mass or pericardial abnormality is visualized.



Esophagus

1 finding requires minor attention

The following was identified, and is generally unchanged from your previous study.

We detected a region of mucosal thickening.

- The mucosal thickening involves the distal third of the esophagus.



Discuss this finding with your doctor to develop a treatment or further investigation plan.

- The most common cause is reflux.
- A treatment plan for esophageal irritants such as reflux should be considered.
- If conservative treatment does not help, you may require further investigation by direct visualization or a barium swallow.
- At the very least, this area of mucosal thickening can be reassessed on your next Prenuvo scan.

See Figure 2

No solid mass is identified within the visualized esophagus.



Stomach

No adverse finding

No solid mass is identified within the stomach wall.
There is no fixed hiatal hernia.



Liver

No adverse finding

Previously seen signal dropout on out-of-phase images is not seen.

There is no evidence of fatty liver disease.

There is no evidence of increased iron deposition in the liver.

No evidence of worrisome hepatic mass is identified.



Gallbladder and biliary system

No adverse finding

No gallbladder calculi is present.

No worrisome mass is visualized in the gallbladder.

No biliary ductal dilatation is present.



Pancreas

No adverse finding

No worrisome pancreatic mass is visualized, with the pancreatic duct appearing normal in diameter.

There is no evidence of fatty atrophy in the pancreas.



Spleen

No adverse finding

The spleen is unremarkable and normal in size.



Kidneys

No adverse finding

The kidneys are normal in size and position.

No worrisome mass is present within the renal parenchyma.

There is no hydronephrosis.



Adrenals

No adverse finding

The adrenals demonstrate normal morphology and signal.



Bowel
No adverse finding

There is no evidence of inflammatory changes involving the large bowel.
No dominant mass or abnormal wall thickening is identified. There is no pericolonic adenopathy.
There is no evidence of fixed inguinal hernia bilaterally.



Bladder and ureters
No adverse finding

There is no evidence of hydroureter bilaterally.
There is no visualized filling defect in the bladder.



Prostate and male reproductive organs
2 informational findings

The following was identified, and is generally unchanged from your previous study.

Your prostate volume was calculated to be 25.8 mL.

- The average volume of a normal size prostate is approximately 30 mL or less.

Your prostate has a heterogeneous composition.

▶ **This is of no concern, but it describes the appearance of the gland over a lifetime.**

There is no solid restricted mass within the prostate gland. There is no periprostatic adenopathy identified.

Spine and MSK



Spine
6 findings 1 requires moderate attention

The following was identified, and is generally unchanged from your previous study.

You have 7 cervical spine vertebrae, 12 thoracic spine vertebrae, and 5 lumbar spine vertebrae.

There is an abnormal curvature of the cervical spine.

- This is characterized by straightening of the cervical spine.



Discuss this finding with your health practitioner.

- Improving your posture is important. It may be beneficial to see a physical therapist or occupational therapist.

The conus of the spinal cord ends at L1.

There are severe degenerative spondyloarthropathic changes in your cervical spine.

C4/C5 level:

- A symmetric uncovertebral osteophyte narrowing both right (mild) and left (mild) neural foramina was detected.
- Mild hypertrophic degenerative changes were visualized in the right side facet. Mild hypertrophic degenerative changes were visualized in the left side facet.
- Spinal canal appears normal.

C5/C6 level:

- There is a central disc osteophyte complex. There is narrowing of both right (moderate / severe) and left (severe) neural foramina.
- A symmetric uncovertebral osteophyte narrowing both right (moderate / severe) and left (severe) neural foramina was detected.
- Modic type I (edema) endplate changes were present.
- Mild spinal canal stenosis was detected.
- Mild hypertrophic degenerative changes were visualized in the right side facet. Mild / moderate hypertrophic degenerative changes were visualized in the left side facet.

C6/C7 level:

- There is a central disc osteophyte complex. There is narrowing of both right (severe) and left (severe) neural foramina.
- A symmetric uncovertebral osteophyte narrowing both right (severe) and left (severe) neural foramina was detected.
- Modic type I (edema) endplate changes were present.
- Mild spinal canal stenosis was detected.
- Mild / moderate hypertrophic degenerative changes were visualized in the right side facet. Mild / moderate hypertrophic degenerative changes were visualized in the left side facet.

▶ **Severe spinal degenerative changes are present on your cervical spine. Follow up with your doctor as you might need a referral to a specialist.**

- The severe narrowing can lead to compression on the spinal nerves of the neck commonly results in symptoms of tingling, pain and eventually loss of feeling or function. If these symptoms are occurring, then you should speak with your doctor and consider a referral to a spinal surgeon.

If you have severe narrowing and compression at the cervical spine, any nerve traversing or extending below this level (ie even to the legs and feet) can be involved.

See Figure 4

There are degenerative spondyloarthropathic changes in your thoracic spine.

T3/T4 level:

- A para-central asymmetric left disc herniation was detected.
- The neural foramina appear normal. Facets appear normal. Spinal canal appears normal.

T4/T5 level:

- A para-central asymmetric right disc herniation was detected.
- Modic type I (edema) endplate changes were present.
- The neural foramina appear normal. Facets appear normal. Spinal canal appears normal.

T5/T6 level:

- A para-central asymmetric right disc herniation was detected.
- The neural foramina appear normal. Facets appear normal. Spinal canal appears normal.

T8/T9 level:

- A para-central asymmetric right disc herniation was detected.
- The neural foramina appear normal. Facets appear normal. Spinal canal appears normal.

▶ **These early degenerative changes do not need a follow up at this point.**

- If you have no symptoms, it is best to take care of your spine to prevent these early arthritis type changes from progressing. Good posture, and spine care can be helpful.

There are mild degenerative spondyloarthropathic changes in your lumbar spine.

L2/L3 level:

- An asymmetric right disc bulge was detected.
- A dessicated disc without height loss was detected.
- The neural foramina and lateral recesses appear normal. Facets appear normal. The spinal canal appears normal.

L5/S1 level:

- A symmetric disc bulge narrowing both the right (mild) and left (mild) neural foramina was detected.
- A dessicated disc with moderate (26-50%) height loss was detected.
- Mild hypertrophic degenerative changes were visualized in the right side facet. Mild hypertrophic degenerative changes were visualized in the left facet joint.
- The lateral recesses appear normal. The spinal canal appears normal.



These mild early degenerative changes do not need a follow up at this point.

- If you have no symptoms, it is best to take care of your spine to prevent these early arthritis type changes from progressing. Good posture, and spine care can be helpful.

See Figure 3

The spinal cord is of normal signal.



Sacroiliac joints

No adverse finding

Normal appearance without evidence of active sacroiliitis or ankylosis.



Shoulders

No adverse finding

There is no joint effusion or advanced degenerative change affecting either shoulder.



Pelvis and hips

1 informational finding

The following was identified, and is generally unchanged from your previous study.

There are small to moderate sized bilateral hydroceles.

 No follow up is required.

There is no joint effusion or advanced degenerative change affecting either hip.




Knees

1 finding requires minor attention

The following was identified, and is generally unchanged from your previous study.

There is a well circumscribed, oval T2 hyperintense lesion anterior to the anterior horn of the lateral meniscus, measuring approximately 1.7 cm.

 This likely represents a parameniscal cyst, however, the menisci are not well evaluated on this examination. Consider dedicated knee MRI if there is any clinical suspicion for meniscal tear.

See Figure 5

There is no joint effusion or advanced degenerative change affecting either knee.



Ankles

No adverse finding

There is no joint effusion or advanced degenerative change affecting either ankle.



Bony skeleton and soft tissue

1 finding requires minor attention

The following was identified, and is generally unchanged from your previous study.

We detected a soft tissue finding.

- The abnormality is located in your Breasts. There is bilateral gynecomastia, more prominent on the right.

▶ **If you were unaware of this finding, and have symptoms with no previous medical history of an issue, then discuss this finding with your doctor.**

- Further investigation of a soft tissue abnormality would depend on your past medical history, symptoms, and clinical exam. These factors will define what further investigations will be helpful.
- If clinically indicated, this can be monitored on your next Prenuvo scan.

See Figure 6

George Stukes

George J. Stukes

6 December 2023

CLINICAL IMAGES:

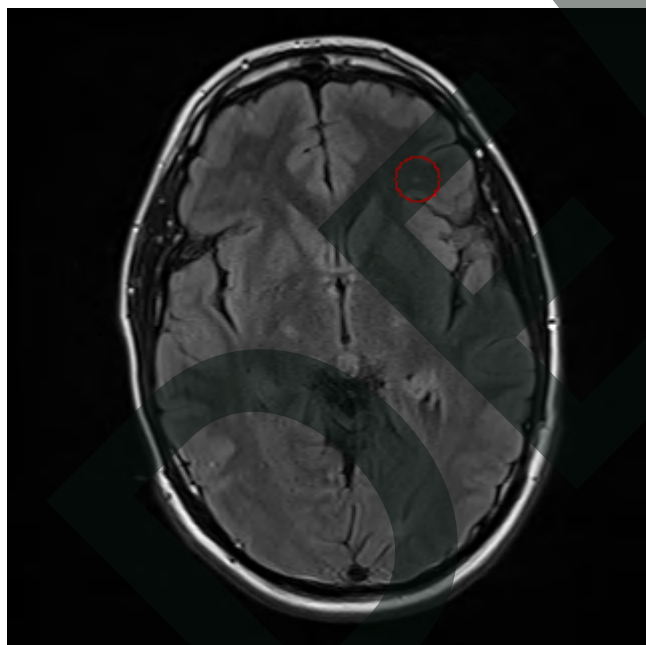


Figure 1. Nonspecific/age Related White Spots.

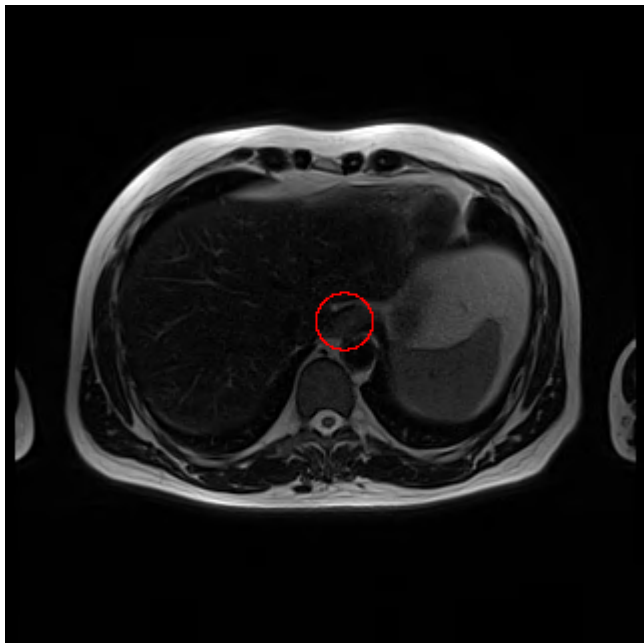


Figure 2. Mucosal Thickening.



Figure 3. Spondyloarthropathy of L2/L3 and L5/S1.

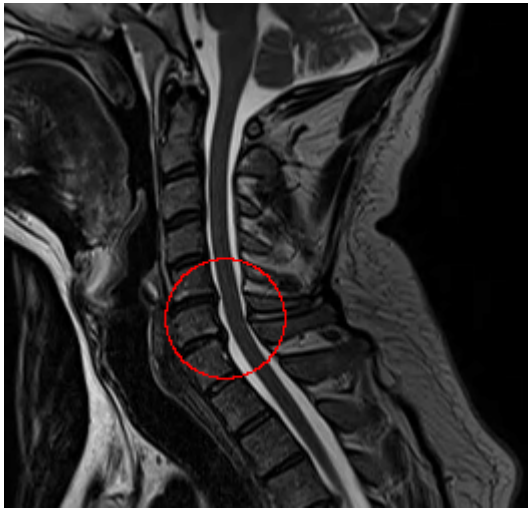


Figure 4. Spondyloarthropathy of C6/C7 and C5/C6.



Figure 5. Parameniscal Cyst.

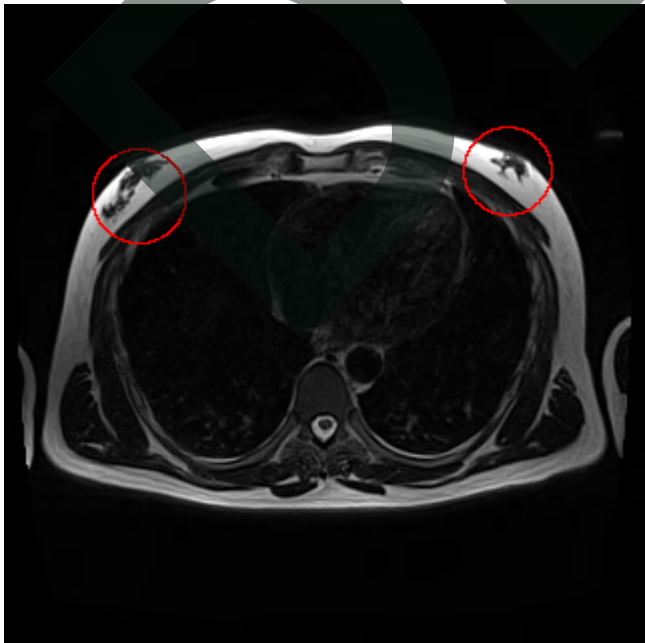


Figure 6. Gynecomastia.