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X-RAY Report of Findings



Prepared for : IMA Aiken Evaluation Date : 10/13/2017 Date X-Ray Taken: 10/13/2017

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X-RAY Report of Findings

Side View of Your Neck (Lateral Cervical View)

The normal healthy curvature of a neck from the side.

Vertebral base lines are drawn at the bottom of the vertebrae to assess alignment. In the cervical spine, these lines should converge in the back of the spine and should not be parallel nor divergent.

No spinal arthritis is apparent and healthy disc spaces are visualized.

Your neck position from the side.

The green line represents a normal range vertebral base line.

The red line represents an abnormal range vertebral base line.



Front



Back

Notes about your condition:

Your neck curve measures -29.0° and should be -42.0° (a negative sign indicates lordosis or normal curve direction). This represents a 31.0% reduction in your curve compared to the normal neck curve.

The abnormal position of your neck puts increased pressure on your spinal discs, muscles, bones, and nerves. Research has shown that abnormal neck curve positions are associated with early spinal arthritis and disc diseases (S.A.D.D.).

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X-RAY Report of Findings

Side View of Your Neck Flexed and Extended (Lateral Cervical Flexion and Extension View)

This line represents where your neck is currently positioned with abnormal displacements.

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This line represents where your neck is currently positioned with normal displacements.



Front

Back Front

Back

Notes about your condition:

This x-ray is taken to observe the stability of your spinal ligaments when you bend your head forward and backwards. Ideally there should be minimal shifting of one vertebrae relative to the adjacent vertebrae. When spines are injured, it is common to see an abnormal increase in displacement slippage forward or backwards and/or an increase in angulation between In your spine when you tip your head down (flexion position), you show no damage at the spinal levels.

In the head backwards position (extension position), your spine demonstrates no ligament damage at the spinal levels.

Name: IMA Aiken Patient #: AikenIMA2017715000

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Front View of Your Upper Neck (AP Open Mouth View)

The normal healthy position of the neck from the front.

The horizontal line represents the normal atlas position. The vertical line is a plumb line, also indicating normal vertical spinal alignment.

No arthritis is apparent and healthy joint spaces are visualized.

Your neck position from the front.

The green line indicates the normal position for your spine.

The red line indicates the abnormal current position for your spine.





Right

Left

Right

Notes about your condition:

This x-ray is taken to mainly observe your upper neck position, the Atlas C1 Vertebrae) and Axis (C2 Vertebrae). Ideally the Atlas should rest upon Axis in a perfect vertical and horizontal alignment as viewed on the normal x-ray example. Your spine demonstrates that the left side of your Atlas is shifted 0.1 mm left off of the Axis (C2), and on the right side is shifted 1.8 mm to the right of the Axis.

Left

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X-RAY Report of Findings

Front View of Your Upper Neck Bending to the Side (AP Open Mouth Left and Right Bending Views)

The green line represents the normal alignment where the side of Atlas (C1) vertebrae should be positioned on Axis (C2) vertebrae.

The red line represents the current position of your Atlas (C1) vertebrae.



Right

LeftRight

Left

Notes about your condition:

In this view, your head was tipped left and right to demonstrate motion of your Atlas (C1 Vertebrae) relative to your Axis (C2 Vertebrae). Ideally, there should be minimal lateral displacement of your Atlas bone relative to Axis.

For the left bending position, your spine demonstrates that the left side of your Atlas is shifted 1.2 mm left off of the Axis (C2). Your Atlas is also tipped 8.5° relative to the Axis.

For the right bending position, your spine demonstrates that the right side of your Atlas is shifted 3.9 mm right off of the Axis (C2). Your Atlas is also tipped 12.2° relative to the Axis.

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X-RAY Report of Findings

Front View of Your Neck (AP Cervical View)

The normal healthy position of the neck from the front.

The green line represents the normal, healthy position for your neck.

No arthritis and healthy joint spaces are visualized.



Right

Left

Your neck position from the front.

The green line indicates the normal, healthy position for your neck.

The red line represents where your neck is currently positioned.



Notes about your condition:

Your head is shifted 12.5 mm to the right, you have a mid neck tilt angle of 7.7° to the right and a lower neck tilt of 2.0° to the left.

This abnormal position of your neck puts increased pressure on your spinal discs, muscles, bones, and nerves. This condition may lead to early spinal arthritis and disc disease (S.A.D.D.).

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Front View of Your Cervical/Thoracic (AP Nasium)

The normal healthy position of the neck from the front.

The horizontal line represents the normal atlas position. The vertical line is a plumb line, also indicating normal vertical spinal alignment.

No arthritis is apparent and healthy joint spaces are visualized.

Your neck position from the

The green line indicates the normal position for your spine.

front.

The red line indicates the abnormal current position for your spine.



Right



Notes about your condition:

Your spine denotes an upper angle measurement of 2.75° on the right and a lower angle of 8.5° to the left side, Ideal alignment in this region of the upper cervical spine should approximate 0° of offset of the upper angle and the lower angle - meaning the skull would positioned perpendicular to the Atlas bone (C1).

Right

This abnormal position of your neck puts increased pressure on your spinal discs, muscles, bones, and nerves. This condition may lead to early spinal arthritis and disc disease (S.A.D.D.).

Left

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Vertex View



Notes about your condition:

You have a posterior atlas rotation of 2.50 degrees.

This abnormal position of your neck puts increased pressure on your spinal discs, muscles, bones, and nerves. This condition may lead to early spinal arthritis and disc disease (S.A.D.D.).

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By looking at your x-ray views compared to the normal views in the preceding photographs, you get a visual idea of what is wrong with your spinal alignment, which Healthcare Practitioners term vertebral subluxations.

However, a visual image does not provide the details of your misalignments. Therefore, we have provided the following Table, which has normal values for the lateral x-ray views for segmental and global alignment compared to your segmental and global alignment. These sagittal (lateral view) values were determined using a geometric analysis of the positions of your vertebrae on each x-ray view.

Side view of your Neck

Angular Analysis	Normal	Patient	Diff. From
	Values	Values	Normal
C2-7 angle	-42º	-29.0°	13.0º

Please note, the positive and negative signs placed in front of your spinal measurements indicate the direction which your bones have moved.

Translational Analysis	Normal Values	Patient Values	Diff. From Normal
Translation C2-C3	3.5 mm	0.1 mm	3.4 mm
Translation C3-C4	3.5 mm	1.8 mm	1.7 mm
Translation C4-C5	3.5 mm	0.4 mm	3.1 mm
Translation C5-C6	3.5 mm	-0.5 mm	3.0 mm
Translation C6-C7	3.5 mm	-0.6 mm	2.9 mm
Translation C7-T1	3.5 mm	Not Digitized	n/a

* Values in Red Exceed Established Normal

Please note, the positive and negative signs placed in front of your spinal measurements indicate the direction which your bones have moved.

Results	Patient Values
S Line	S2
C1 to Horizontal	18.4º

Side View of Your Neck Flexed

In your spine when you tip your head down (flexion position), you show no damage at the spinal levels.

Summary

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X-RAY Report of Findings

Summary

Side View of Your Neck Extended

In the head backwards position (extension position), your spine demonstrates no ligament damage at the spinal levels.

Anterior/Posterior Cervical Level

Global Analysis	Normal Values	Patient Values	Difference From Normal
RZA T7	0°	-2.0°	2.0°
CDA C2-T7	0°	7.7º	7.7°
Translation C2-T7	0 mm	-12.5 mm	12.5 mm

CDA: Cervico-dorsal Angle (measure of the mid cervical angle)

RZA: Rotational Angle relative to true vertical of lower cervical and upper thoracic spine

Anterior/Posterior Nasium Level

Global Analysis	Normal Values	Patient Values	Difference From Normal
Head Tilt	0°	0º N	0.0°
Plane Line	0°	2.75⁰ R	2.8°
Upper Angle	0°	2.75º R (81.5º)	2.8°
Condyle Circle	n/a	3In.	n/a
Axial Circle	n/a	8in.	n/a
Lower Angle	0°	8.5º L (81.5º)	8.5°

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Neutral Upper Neck Values

Global Analysis	Normal Values	Patient Values	Difference From Normal	Clinical Significance
C0-C1 Lat. Flex. Angle	0°	0.1º	0.1º	WNL
C1-C2 Lat. Flex. Angle	0°	0.6°	0.6°	WNL
C2-C3 Lat. Flex. Angle	0°	3.1º	3.1º	WNL
Left C1-C2 "overhang" margin	0 mm	left 0.1 mm	0.1 mm	WNL
Right C1-C2 "overhang" margin	0 mm	right -1.8 mm	1.8 mm	WNL

WNL = Within Normal Levels

Front view of your head

Results	Normal Values	Patient Values	Difference From Normal
Atlas Rotation	0°	posterior 2.5°	2.5°

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Summary

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Important Information

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