

This report measures spinal shape and alignment from your X-rays. Numbers are compared with published reference values. These are structural measurements only — they do not diagnose a condition.

PATIENT	PATIENT ID	DOB	AGE
Sample Patient	Sample	Withheld	Withheld
GENDER	STUDY DATE	REFERRING PHYSICIAN	MODALITY
Withheld	Withheld	Withheld	DX
PREVIOUS STUDY DATE			
Withheld			

DATA QUALITY

No reason for examination was recorded, so findings are not correlated to symptoms.

Facing direction describes how the patient is oriented in this image. It does not refer to the left or right side of the body.

Reason for Examination

Not Mentioned

What This Report Shows

This report measures the shape and alignment of your cervical spine (neck) from 1 X-ray image. A computer placed measurement guides on each vertebra and compared 16 measurements against published reference values.

Of the 16 measurements taken, 5 are within reference range, 3 show mild or moderate deviation, and 8 show significant deviation.

These are structural measurements only. They do not diagnose a condition and they were not compared against any reported symptoms.

Measurement Methodology

Analysis Protocol

Digital measurement tools place guides on each vertebra. Reference values come from published averages. Each analysis tool measures independently.

Severity Classification by Color Code

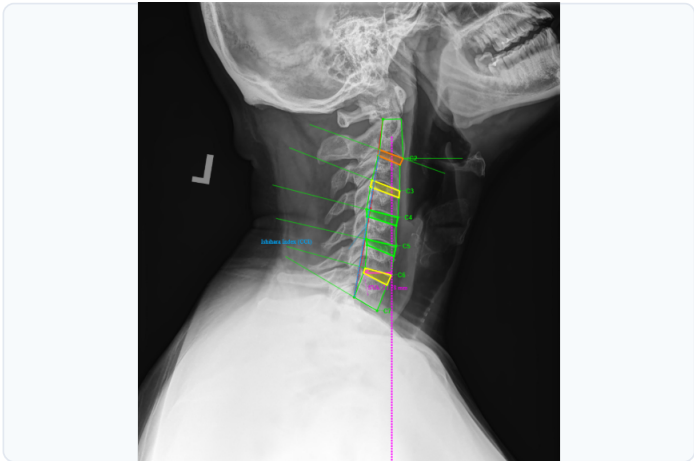
Within reference range – At or near the published reference value.

Mild – Small deviation from the reference value.

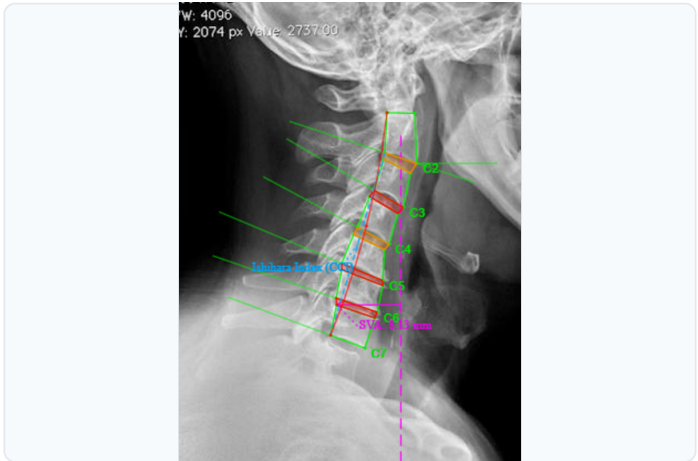
Moderate – Clearer deviation; worth reviewing with your provider.

Significant – Well outside the reference range; review with your provider is recommended.

Previous Study View(Withheld)



Current Study View(Withheld)



Section Snapshot

Cervical spine (neck): 16 scored measurements (5 within range,0 mild, 3 moderate, 8 significant).

11 key findings identified from this view.

Progress comparison status

Compared with prior measurements from the same anatomical region.

Table with 2 columns: Comparison quality, Prior study date, Matched prior image, Matched prior annotations, Like-for-like view comparison. Values include 'available', 'Withheld', 'Yes'.

Comparison totals:11 improved, 10 worsened, 0 stable, 12 changed (direction unclear), 0 new, 0 resolved.

Chapter summary

Every measurement taken for this region, grouped by deviation from its reference value.

Summary boxes showing counts: 5 Within range, 0 Mild, 3 Moderate, 8 Significant.

Largest deviations from reference

- C5-C6 — 0.65 mm (18.6%) (reference 5.00 mm, 4.35 mm below) — disc space is 18.6% of the reference proportion
- C6-C7 — 0.80 mm (20.2%) (reference 5.00 mm, 4.20 mm below) — disc space is 20.2% of the reference proportion
- C4-C5 — 0.96 mm (25.4%) (reference 4.60 mm, 3.64 mm below) — disc space is 25.4% of the reference proportion
- C3-C4 — 1.00 mm (24.9%) (reference 4.30 mm, 3.30 mm below) — disc space is 24.9% of the reference proportion
- C2-C3 — 1.12 mm (27.1%) (reference 4.00 mm, 2.88 mm below) — disc space is 27.1% of the reference proportion

Several measurements fall well outside the reference range. Review with your provider is recommended.

Measured, no reference available

CL1 (C2 - C7): 8.28°. Individualized reference unavailable for this view.

Balance and load

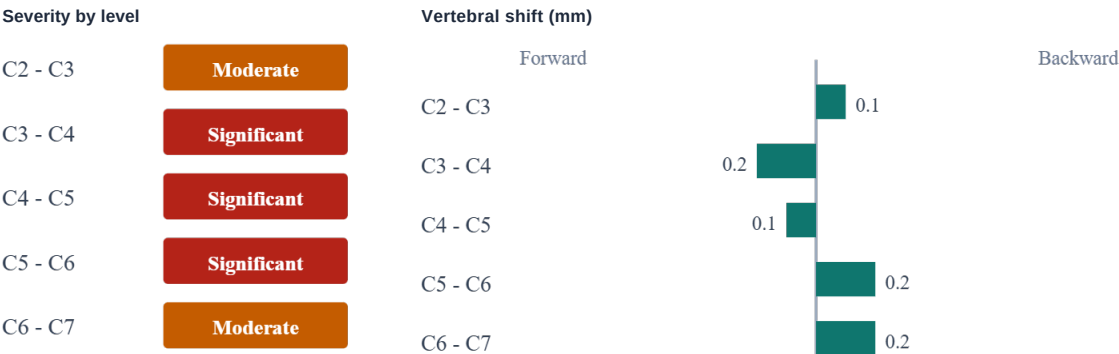
Table with 5 columns: Measurement, Value, Reference, Status, Meaning. Row 1: C2 Slope, -18.23°, -10°, Moderate, The tilt of the top vertebra of your neck.

Movement and position, level by level

What it is The angle and shift between one vertebra and the one directly below it, level by level.

Why it matters The overall curve is the sum of these individual levels. This shows where your curve is shared evenly and where it is concentrated.

Level	Bend	Angle	Reference	Shift (signed)	Direction	Cumulative offset	Status
C2 - C3	Extension	12.22°	7°	+0.1 mm	Backward	+0.1 mm	Moderate
C3 - C4 †	Flexion (reversed)	Flexion 2.31° (reversed)	7°	-0.2 mm	Forward	-0.1 mm	Significant
C4 - C5 †	Flexion (reversed)	Flexion 5.37° (reversed)	7°	-0.1 mm	Forward	-0.2 mm	Significant
C5 - C6 †	Flexion (reversed)	Flexion 3.83° (reversed)	7°	+0.2 mm	Backward	+0.0 mm	Significant
C6 - C7	Extension	1.46°	7°	+0.2 mm	Backward	+0.2 mm	Moderate

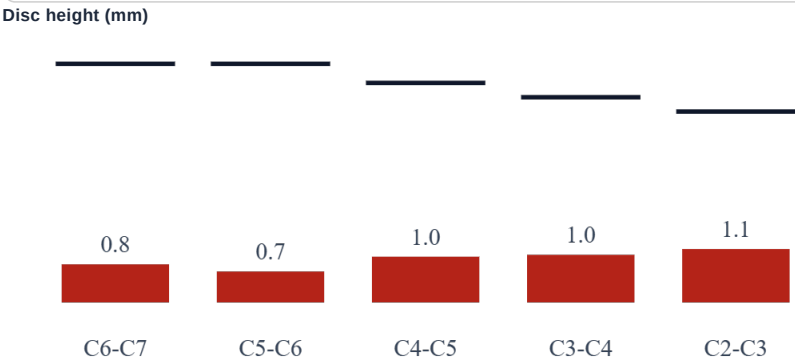


Disc spaces, level by level

What it is Disc height is the cushion height between bones. The ratio compares that height to nearby bone height.

Why it matters Discs act as spacers and shock absorbers. The ratio is usually the most reliable comparison across people and image scaling.

Level	Height	Reference height	Height-to-body ratio	Reference ratio	Status
C6-C7	0.80 mm	5 mm	20.2%	40%	Significant
C5-C6	0.65 mm	5 mm	18.6%	40%	Significant
C4-C5	0.96 mm	4.6 mm	25.4%	40%	Significant
C3-C4	1.00 mm	4.3 mm	24.9%	40%	Significant
C2-C3	1.12 mm	4 mm	27.1%	40%	Significant



0 of 5 disc spaces measured at or above the reference proportion; 0 showed thinning; 0 showed collapse. The narrowest was C5-C6 at 18.6%.

Data completeness and provenance

16 measurements were compared with reference values across 5 measured levels (C2 - C3, C3 - C4, C4 - C5, C5 - C6, C6 - C7). 5 disc levels also had reference comparisons.

Measurements in this section are reported in °, mm.

CL1 8.28° across C2–C7 vs summed segment angles 2.17° over the same span (difference +6.11°).

Reference source table

Metric key	Unit	Reference used
C_Disc_Height_C2_C3	mm	4.00
C_Disc_Height_C3_C4	mm	4.30
C_Disc_Height_C4_C5	mm	4.60
C_Disc_Height_C5_C6	mm	5.00
C_Disc_Height_C6_C7	mm	5.00
C_Flexion_Extension	°	7.00
C_Translations	mm	0.00
C2_Slope	°	-10.00
PTSA	°	72.00

Provenance

Orientation	RIGHT
Image dimensions	309 x 416 px
View context	Structured section generated from measured values
Generated at	Withheld

Posterior Curve Angle: 15.73°

† Marked as a significant deviation because this segment bends in the opposite direction to the expected curve, regardless of the size of the angle.

Your baseline for future comparison

Measurement	Prior (Withheld)	Current (Withheld)	Change	Direction
CL1 (C2 - C7)	14.96°	8.28°	-6.68°	Changed (reference unavailable)
C2 Slope	-19.89°	-18.23°	+1.66°	Closer to reference
C2 - C3	1.48°	12.22°	+10.74°	Closer to reference
C2 - C3 shift	0.10 mm	0.10 mm	+0.00 mm	Unchanged
C3 - C4: Flexion 2.31° (reversed)	6.91°	2.31°	-4.60°	Further from reference
C3 - C4 shift	0.30 mm	0.20 mm	-0.10 mm	Unchanged
C4 - C5: Flexion 5.37° (reversed)	1.48°	5.37°	+3.89°	Closer to reference
C4 - C5 shift	0.60 mm	0.10 mm	-0.50 mm	Unchanged
C5 - C6: Flexion 3.83° (reversed)	2.33°	3.83°	+1.50°	Closer to reference
C5 - C6 shift	1.20 mm	0.20 mm	-1.00 mm	Unchanged
C6 - C7	15.32°	1.46°	-13.86°	Closer to reference
C6 - C7 shift	0.20 mm	0.20 mm	+0.00 mm	Unchanged
C6-C7	6.14 mm	0.80 mm	-5.34 mm	Further from reference
C5-C6	6.08 mm	0.65 mm	-5.43 mm	Further from reference
C4-C5	5.84 mm	0.96 mm	-4.88 mm	Further from reference
C3-C4	5.20 mm	1.00 mm	-4.20 mm	Further from reference
C2-C3	5.15 mm	1.12 mm	-4.03 mm	Further from reference

Progress Notes

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Measurement	Normal	Prev	Curr	Notes
Curvature Type	Not available	Sigmoid (Kyphotic-Lordotic)	Kyphotic	Changed: changed from Sigmoid (Kyphotic-Lordotic) to Kyphotic. Improvement/worsening cannot be determined from available reference data.
Cobb-CCL Harmony	" 7 . 4 °	Harmonic Curve (Stable)	Curve Stability Warning: Mid-Cervical Buckling	Changed: changed from Harmonic Curve (Stable) to Curve Stability Warning: Mid-Cervical Buckling. Improvement/worsening cannot be determined from available reference data.
CL1 (C2 - C7)	Not available	14.96°	8.28°	Changed: decreased from 14.96° to 8.28°. Improvement/worsening cannot be determined from available reference data.
C2 Slope	-10°	-19.89°	-18.23°	Improved (closer to normal).
Posterior Curve Angle	Not available	4.30°	15.73°	Changed: increased from 4.30° to 15.73°. Improvement/worsening cannot be determined from available reference data.
C2 - C3	7°	5.15 mm Thinning	12.22°	Worsened (farther from normal).
C2 - C3	0mm	27.3 %	Posterior 0.1 mm	Improved (closer to normal).
C3 - C4	7°	5.2 mm Thinning	Flexion 2.31°	Worsened (farther from normal).
C3 - C4	0mm	32.6 %	Anterior 0.2 mm	Improved (closer to normal).
C4 - C5	7°	5.84 mm Healthy	Flexion 5.37°	Worsened (farther from normal).
C4 - C5	0mm	36.3 %	Anterior 0.1 mm	Improved (closer to normal).
C5 - C6	7°	6.08 mm Healthy	Flexion 3.83°	Worsened (farther from normal).
C5 - C6	0mm	38.6 %	Posterior 0.2 mm	Improved (closer to normal).
C6 - C7	7°	6.14 mm Thinning	1.46°	Worsened (farther from normal).
C6 - C7	0mm	30.1 %	Posterior 0.2 mm	Improved (closer to normal).
C2-C3	7°	5.15 mm Thinning	1.12 mm Thinning	Worsened (farther from normal).
C2-C3	0mm	27.3 %	27.1 %	Improved (closer to normal).

Measurement	Normal	Prev	Curr	Notes
C3-C4	7°	5.2 mm Thinning	1 mm Collapsed	Worsened (farther from normal).
C3-C4	0mm	32.6 %	24.9 %	Improved (closer to normal).
C4-C5	7°	5.84 mm Healthy	0.96 mm Thinning	Worsened (farther from normal).
C4-C5	0mm	36.3 %	25.4 %	Improved (closer to normal).
C5-C6	7°	6.08 mm Healthy	0.65 mm Collapsed	Worsened (farther from normal).
C5-C6	0mm	38.6 %	18.6 %	Improved (closer to normal).
C6-C7	7°	6.14 mm Thinning	0.8 mm Collapsed	Worsened (farther from normal).
C6-C7	0mm	30.1 %	20.2 %	Improved (closer to normal).
C2-7 Cobb Angle	Not available	10.74°	2.16°	Changed: decreased from 10.74° to 2.16°. Improvement/worsening cannot be determined from available reference data.
C2-6 Cobb Angle	Not available	-4.58°	0.70°	Changed: increased from -4.58° to 0.70°. Improvement/worsening cannot be determined from available reference data.
C2-C7 SVA	Not available	21.78 mm	8.13 mm	Changed: decreased from 21.78 mm to 8.13 mm. Improvement/worsening cannot be determined from available reference data.
CCI	Not available	1.64	-10.37	Changed: decreased from 1.64 to -10.37. Improvement/worsening cannot be determined from available reference data.
CCL	Not available	7.51°	-5.23°	Changed: decreased from 7.51° to -5.23°. Improvement/worsening cannot be determined from available reference data.
VBA3	Not available	-1.65°	2.82°	Changed: increased from -1.65° to 2.82°. Improvement/worsening cannot be determined from available reference data.
VBA4	Not available	-6.12°	-2.55°	Changed: increased from -6.12° to -2.55°. Improvement/worsening cannot be determined from available reference data.
VBA5	Not available	-4.68°	-2.84°	Changed: increased from -4.68° to -2.84°. Improvement/worsening cannot be determined from available reference data.

CCI on the previous study was 1.64, and on the current study it measured -10.37, which accounts for a total change of 732.3%.

VBA3 on the previous study was -1.65°, and on the current study it measured 2.82°, which accounts for a total change of 270.9%.

Posterior Curve Angle on the previous study was 4.30°, and on the current study it measured 15.73°, which accounts for a total change of 265.8%.

CCL on the previous study was 7.51°, and on the current study it measured -5.23°, which accounts for a total change of 169.6%.

C2 - C3 on the previous study was 5.15 mm (7° is the ideal/normal reference), and on the current study it measured 12.22°, which accounts for a total change of 137.3%.

On your current study, your C2 - C3 is 74.6% increased from normal.

Please note: positive and negative signs in spinal measurements indicate the direction of movement of the vertebrae.

- C3 - C4 bends opposite the expected direction at 2.31° against 7.00° reference.
- C5-C6 is the narrowest disc level at 0.65 mm and 18.6% of the reference proportion.
- Whole-curve value 8.28° differs from the summed segment angles 2.17° by 6.11°; no external reference value is used for this internal arithmetic check.
- CL1 (C2 - C7) is 8.28°, and no individualized reference is available because the T1/PTSIA landmarks were not placed.

CL	Cervical lordosis — the forward curve of your neck.
PTSIA	Posterior tangent segmental intersection angle — used to estimate the expected neck curve.
PCL	Predicted cervical lordosis — the reference curve calculated from your PTSIA.
FHP	Forward head posture — how far the head sits forward of the shoulders.
SVA	Sagittal vertical axis — how far the top of the neck sits forward of its base.
CCI	Cervical curvature index — a technical measure of neck curve shape.
CCL	Absolute rotation angle / related cervical curve length metric.
Cobb angle	Angle between two vertebrae used to describe curve size.
George's line	A line along the back of the vertebral bodies used to check alignment.
Toyama	A method for measuring vertebral shift in the neck.
flexion	Bending forward (opposite to the usual lordotic curve).
extension	Bending backward (in the direction of the usual lordotic curve).
anterior	Toward the front of the body.
posterior	Toward the back of the body.
cranial	Toward the head.
caudal	Toward the feet.

Limitations

These measurements come from two-dimensional X-ray images. Small differences in how you were positioned for the X-ray can change the numbers. Reference values come from published averages and do not fit every person. This report describes structure only — it is not a diagnosis, and it does not account for symptoms, medical history, or examination findings. Discuss these results with your provider before drawing conclusions.

SAMPLE PROVIDER

Sample Provider

DIPLOMATE:—

DETAILS:WITHHELD

● **SAMPLE ONLY**

REF:SAMPLE

DATE: Withheld

De-identified sample. Signature removed.