Spinographic Landmarking
X-Rays in Chiropractic

Several radiology courses in the curriculum will cover...

Pathologies
Physics
Positioning

Technique department
Spinography
Biomechanical analysis

X-Rays in Chiropractic

Used by most, if not all, techniques as a standard of practice.

A form of examination that is insightful on many levels.

“Benefit VS. Risk” is an important consideration when exposing patients to x-rays in any healthcare field.

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Rationale for X-Rays

American Chiropractic College of Radiology Guidelines for spine radiology are consistent with guidelines put forth and adopted by other healthcare entities:

• American College of Radiology (medical radiologists)
• American Society for Spine Radiology
• American Academy of Family Physicians
• American Academy of Orthopedic Surgeons
• Society for Pediatric Radiology


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Rationale for X-Rays

Indications for radiographic evaluation of the spine:

1. Pain or neurologic symptoms
2. Spinal trauma (Falls, Sclerotogenous pain, Fractures, etc.)
3. Surgical planning
4. Previous surgery, follow up or suspected complications
5. Neoplastic (benign and malignant) lesions
6. Congenital anomalies
7. Previously detected abnormality
8. Alignment abnormalities / Abnormal curvatures / Scoliosis (Cobb Angles)
9. Infection
10. Arthropathy
11. Degenerative disorders
12. Spine instability or limitation of motion
13. Osteoporosis


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Chiropractic X-Rays

Generally taken weight bearing

This provides good biomechanical feedback

Generally taken from A-P but analyzed from P-A (functional / surgical view)

Analysis is referred to spinography and is chiropractic/technique specific

Advantages
Correlate postural distortions
Correlate palpation findings

Motion and Static
Identify pathologies....

Facilitate safer/conscientious care
Qualify and quantify misalignment

More specific adjusting (LOC)
Chiropractic X-Rays

Disadvantages
Static picture of a dynamic spine
Limited sensitivity to pathologies
Exposure risk (consider benefit)
Financial start up costs
Maintenance
Portability
Digital?

X-Rays
Insightful about which components of the subluxation complex?
Documentation

Insightful about which components of the PART system?

Cervical Views

Lateral

A-P Open Mouth

A-P Lower Cervical

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Lateral Cervical

Vertebral Bodies
Superior and Inferior Endplate Tips
Disc Space

Occipital Condyle
Anterior / Posterior

Anterior Tubercle C1

Posterior Arch C1

Odontoid Process C2

Atlanto-Dental Interspace
APOM Structures

Occipital Condyles

Foramen Magnum

Lateral Masses of C1

C1 TVP / Lateral Mass Junction

Odontoid Process

C2 Spinous Process

C2 Pedicle Shadows
Thoracic Views

### Lateral
- Endplate tips
  - Superior/Inferior
- Disc space

### A-P
- Junction of the laminae
- Pedicle shadows
- Vertebral waist
- Endplate tips (superior/inferior)

These structures are applied to the lumbar spine as well!
Junction of laminae  
(spinous tips)

Pedicle shadows

Vertebral waist  
(biconcave aspect of body)

Disc spaces  
(not disc itself)

Endplate tips  
(vertebral body)
Disc spaces

Endplate tips
(vertebral body)
Pelvic Views

A-P Lumbopelvic
Superior aspect of femur heads
Superior aspect of iliac crests
Inferior aspect of ischial tuberosities
S2 tubercle
Pubic symphysis
Sacral grooves

Disc spaces
Endplate tips
(vertebral body)
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