

# RADIOGRAPHIC ANATOMY OF THE NORMAL LUMBAR SPINE

Prepared for



# SPINENET

by

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# ACKNOWLEDGEMENTS

**I extend my appreciation to**

**Dr Peter Lau FRACR**, of Newcastle Australia, for providing the magnetic resonance images and the spot plain films used in this presentation,

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**Nikolai Bogduk**

**RADIOGRAPHIC ANATOMY  
OF THE  
NORMAL LUMBAR SPINE**



**PART 1: GETTING STARTED**

**This CD presentation is designed to be used either or both**

- **by individuals wishing to teach themselves,**
- **by instructors teaching others,**

**the basic radiographic anatomy of the lumbar spine.**

**This is not a lecture on anatomy. Rather, it is an instructional course on how to apply and to recognize the details of anatomy in radiographic form. Consequently, participants need to have more than an elementary knowledge of the anatomy of the lumbar vertebrae and of the lumbar spine. They should have read and understood the relevant chapters in:**

**Bogduk N. Clinical Anatomy of the Lumbar Spine and Sacrum, 3<sup>rd</sup> edn.  
Churchill Livingstone, Edinburgh, 1997.**

**Those are:**

<b>chapter 1</b>	<b>for the osteology of the lumbar vertebrae</b>
<b>chapters 2 and 3</b>	<b>for the structure of the joints of the lumbar spine</b>
<b>chapter 9</b>	<b>for the muscles of the lumbar spine</b>
<b>chapter 10</b>	<b>for the nerves of the lumbar spine</b>

This course is presented in several consecutive Parts. Each part is introduced by a heading in white print, Times Roman font, in the form:

## **Part X: Name of the Part.**

Within each Part, various forms of graphics and text are provided. These are coded by color.

Directions as to what to do and what to expect are presented in blue type, as on this page. They constitute what an instructor would say, or the script for a voice-over, if this CD had audio.

Instructional material, i.e. what to know and what to remember is presented in **YELLOW** type.

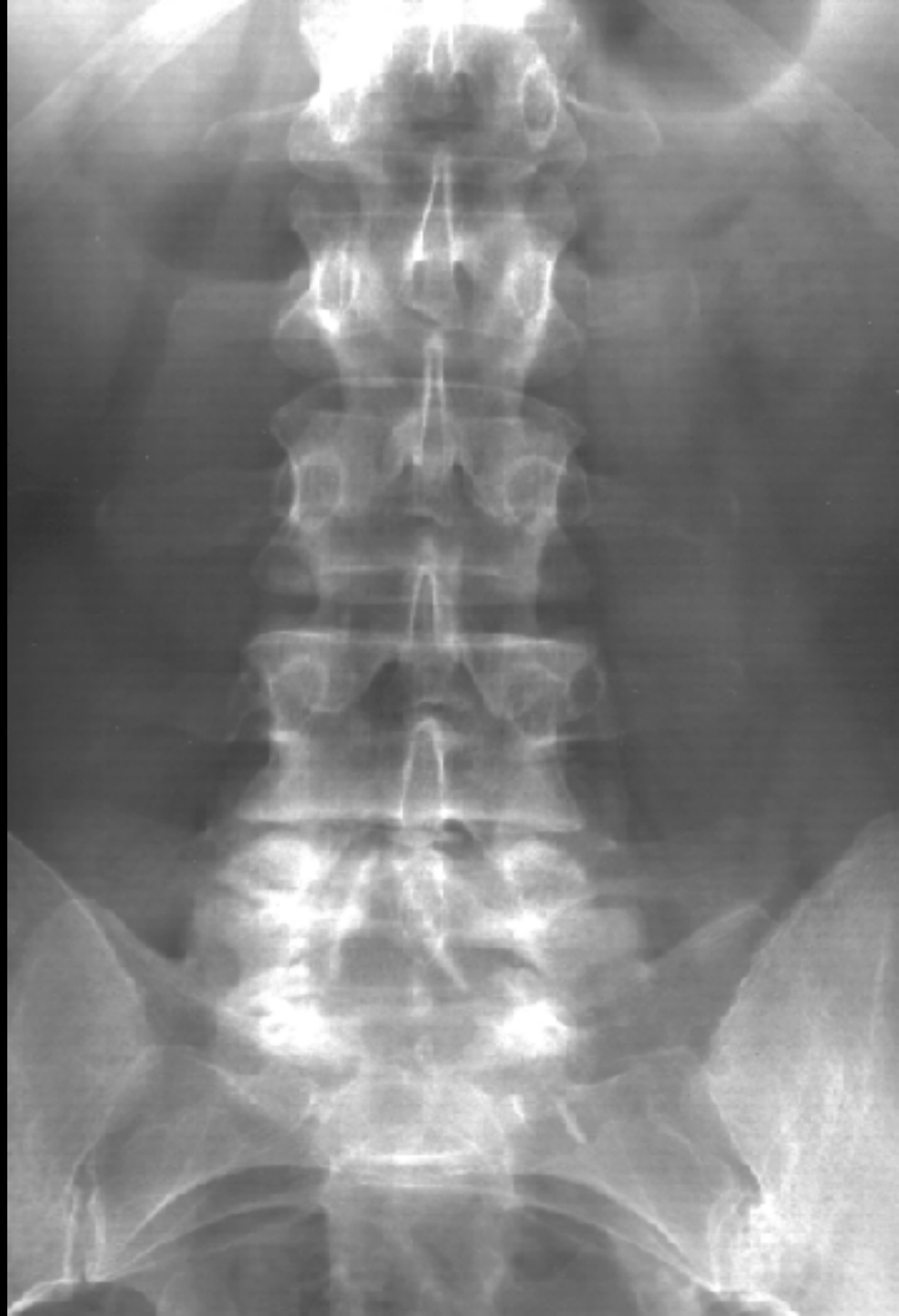
At times, important highlight statements are printed in **PINK** type.

Different phases or steps in each Part are introduced by heading in **SILVER** type.

# PHASE 1: OBJECTIVES

**The next sequence of 6 slides depicts a series of radiographic images of the lumbar spine. View these rapidly, at a rate of about 1-2 per second.**

**The objective is to set the scene. The images are ones that participants should be able to interpret.**





I:6



1.5T HIGOW

A

Hunter Imaging Group

Ex: 12778

20 YO LSV

SC:AX T2

020Y F 30731139

Se: 105/5

Acc:

Im: 11/15

2003 Jul 31

Ax: S11.0 (COI)

Acq Tm: 18:50:05

320 x 256

R

L

ET: 16

TR: 3000.0

TE: 98.6

USLS456

4.0thk/0.8sp

W:2154 L:1077

p

DFOV: 22.0 x 22.0cm



1.5T HIGOW

A

Hunter Imaging Group

Ex: 12778

20 YO LSV

SC:AX T2

020Y F 30731139

Se: 104/5

Acc:

Im: 1/23

2003 Jul 31

Ax: 112.2 (COI)

Acq Tm: 18:46:08

320 x 256

R

L

ET: 16

TR: 3000.0

TE: 100.1

USLS456

4.0thk/0.8sp

W:2041 L:1020

P

DFOV: 22.0 x 22.0cm



1.5T HIGOW

Ex: 12776

SC:SAG T2

Se: 102/4

Im: 4/12

Sag: R21.1

S

Hunter Imaging Group

65 YO LSV

065Y F 3031136

Acc:

2003 Jul 31

Acq Tm: 17:47:34

320 x 256

A

P

ET: 16

TR: 3000.0

TE: 106.3

USLS456

4.0thk/1.0sp

W:2068 L:1034

DFOV: 28.0 x 28.0cm

1.5T HIGOW

Ex: 12776

SC:SAG T2

Se: 102/4

Im: 6/12

Sag: R11.1

S

Hunter Imaging Group

65 YO LSV

065Y F 3031136

Acc:

2003 Jul 31

Acq Tm: 17:47:34

320 x 256

A

P

ET: 16

TR: 3000.0

TE: 106.3

USLS456

4.0thk/1.0sp

W:2210 L:1105

DFOV: 28.0 x 28.0cm

**Having viewed these slides, participants are entitled to be bewildered or overwhelmed. The slides show the lumbar spine in different views, using different modes of medical imaging.**

**Subsequent phases of the course will help participants develop a means by which they can confidently interpret these various images.**