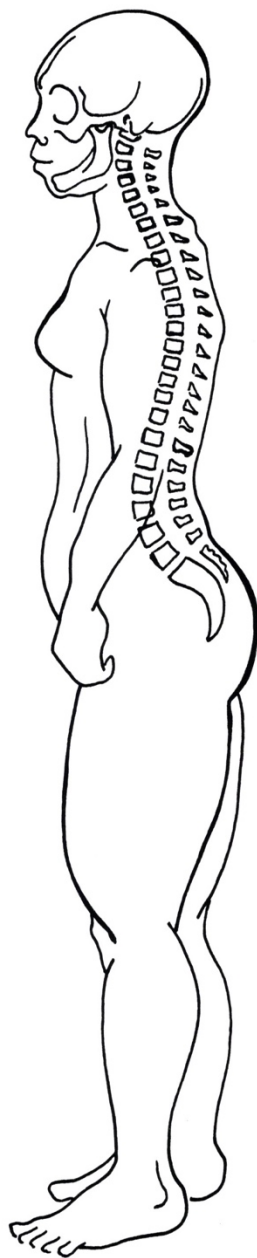


**ILLUSTRATIONS OF THE SPINE/TRUNK - CONFIGURATION, BONES, JOINT MOTION**

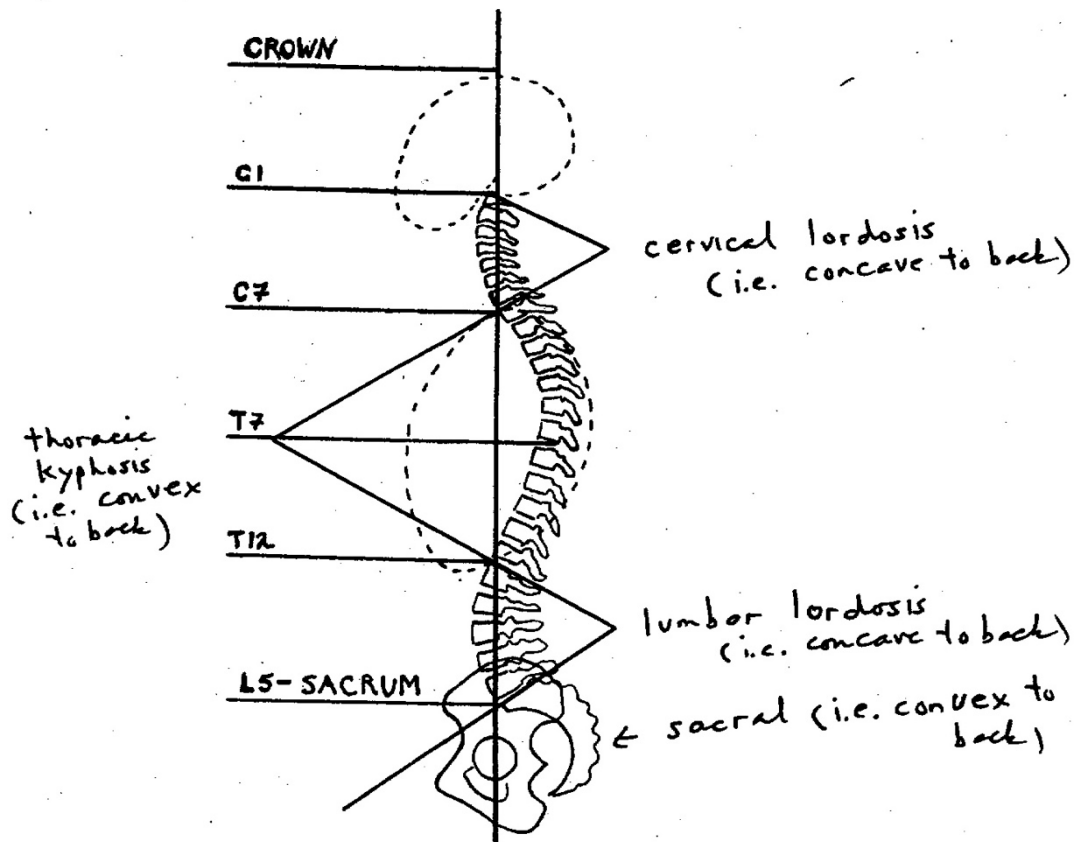
All illustrations drawn freehand by Irene Dowd between 1970 and 2024  
drawn from live models, human bone skeleton, cadaver dissection, photographs of moving figures, x-rays  
and MRI scans, in addition to schematics created by Irene Dowd



side view of live model with schematic of spine shown within outline of torso

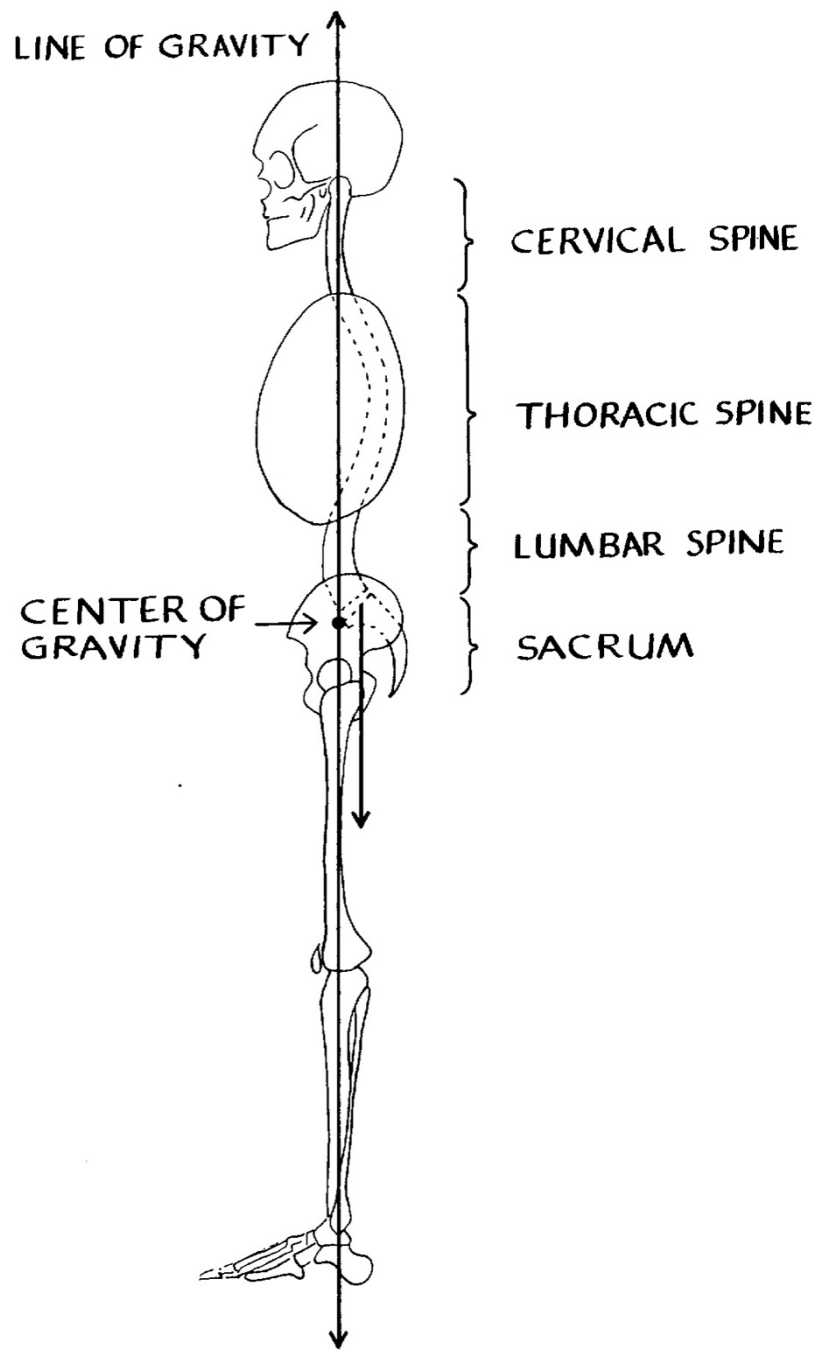


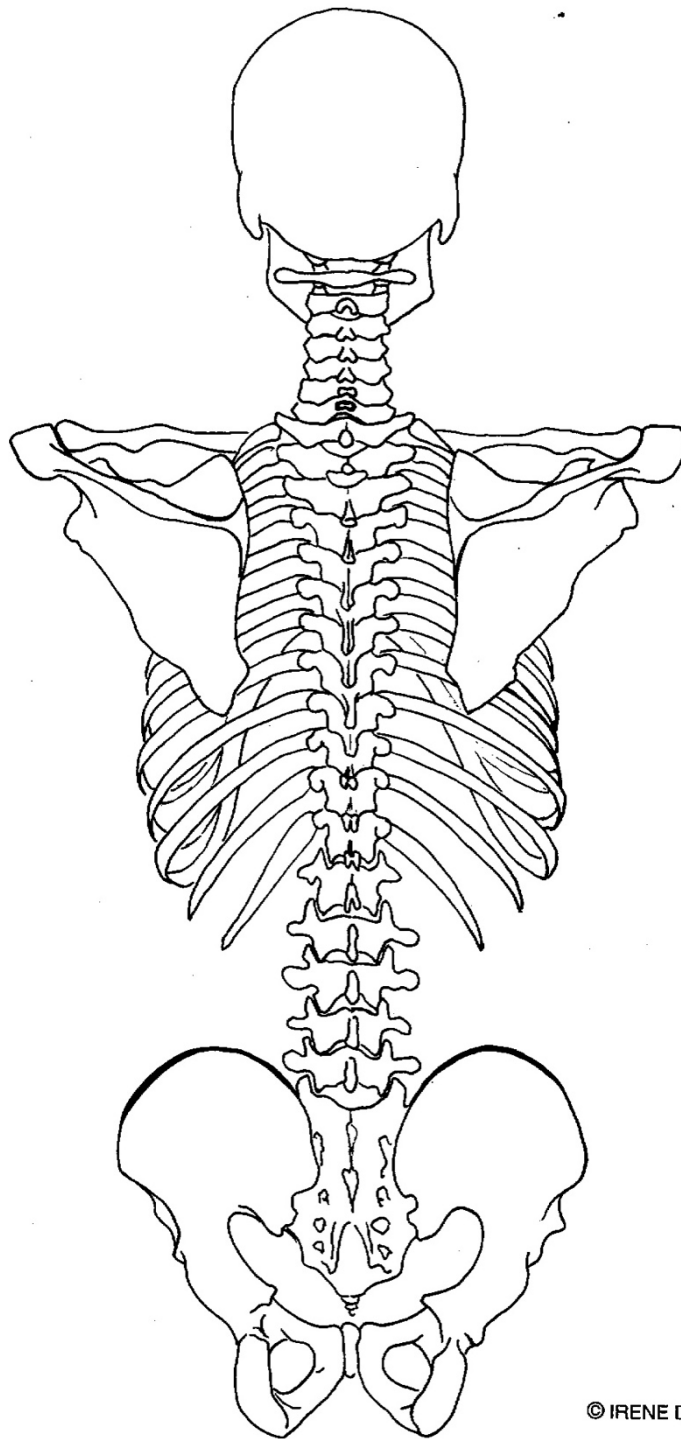
## "Normal" Spinal Curves



exaggerated spinal curves = increased cervical and lumbar lordosis (i.e. more **extension of cervical and/or lumbar**), and increased thoracic kyphosis (i.e. more **flexion of thoracic**)

flattened spinal curves = decreased cervical and lumbar lordosis (i.e. more **flexion of cervical and/or lumbar**), and decreased thoracic kyphosis (i.e. more **extension of thoracic**)

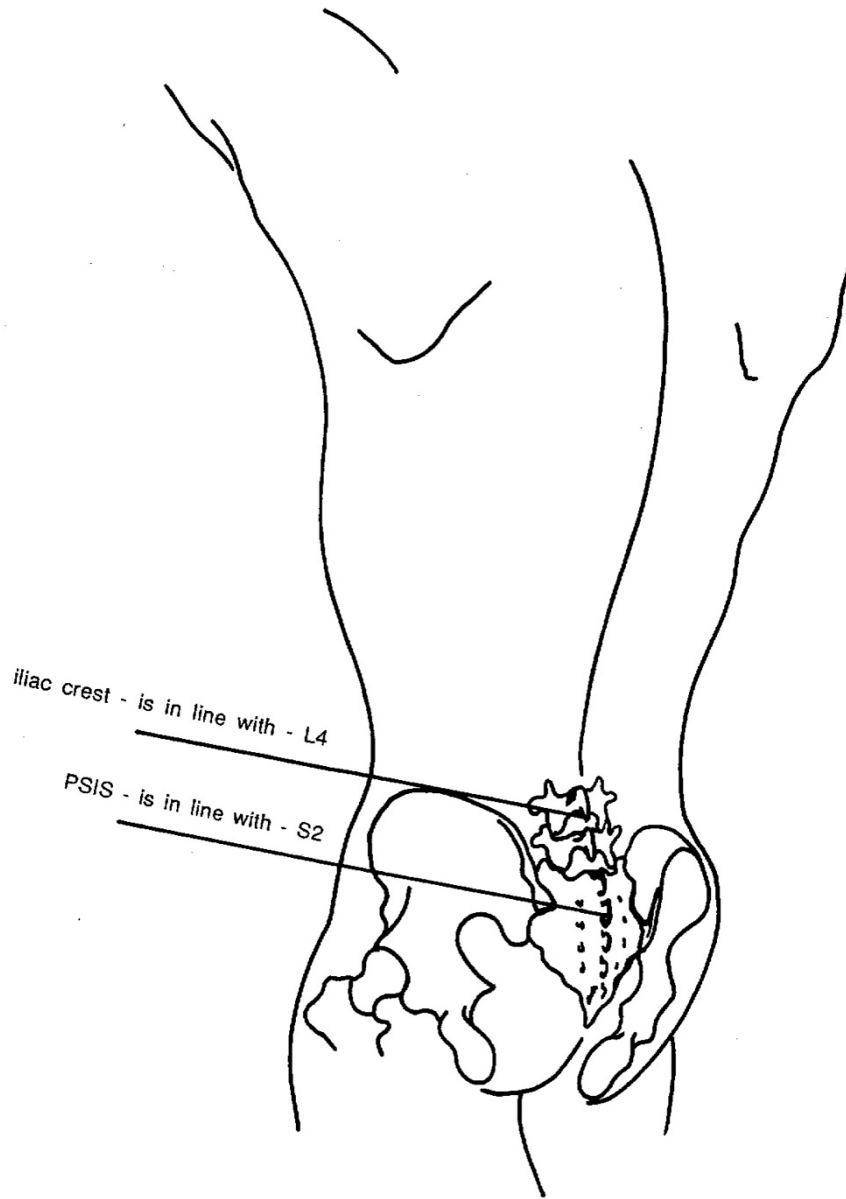


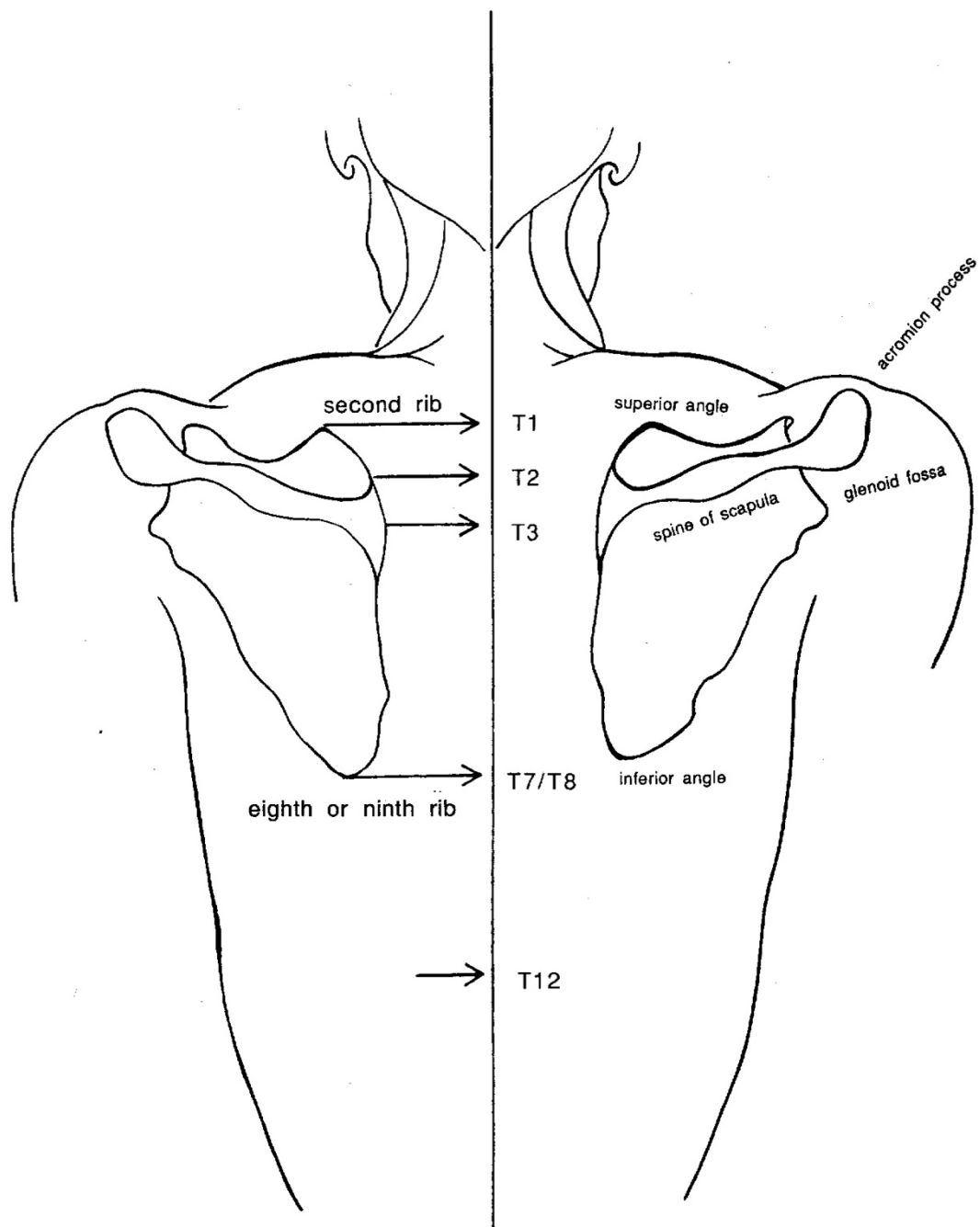


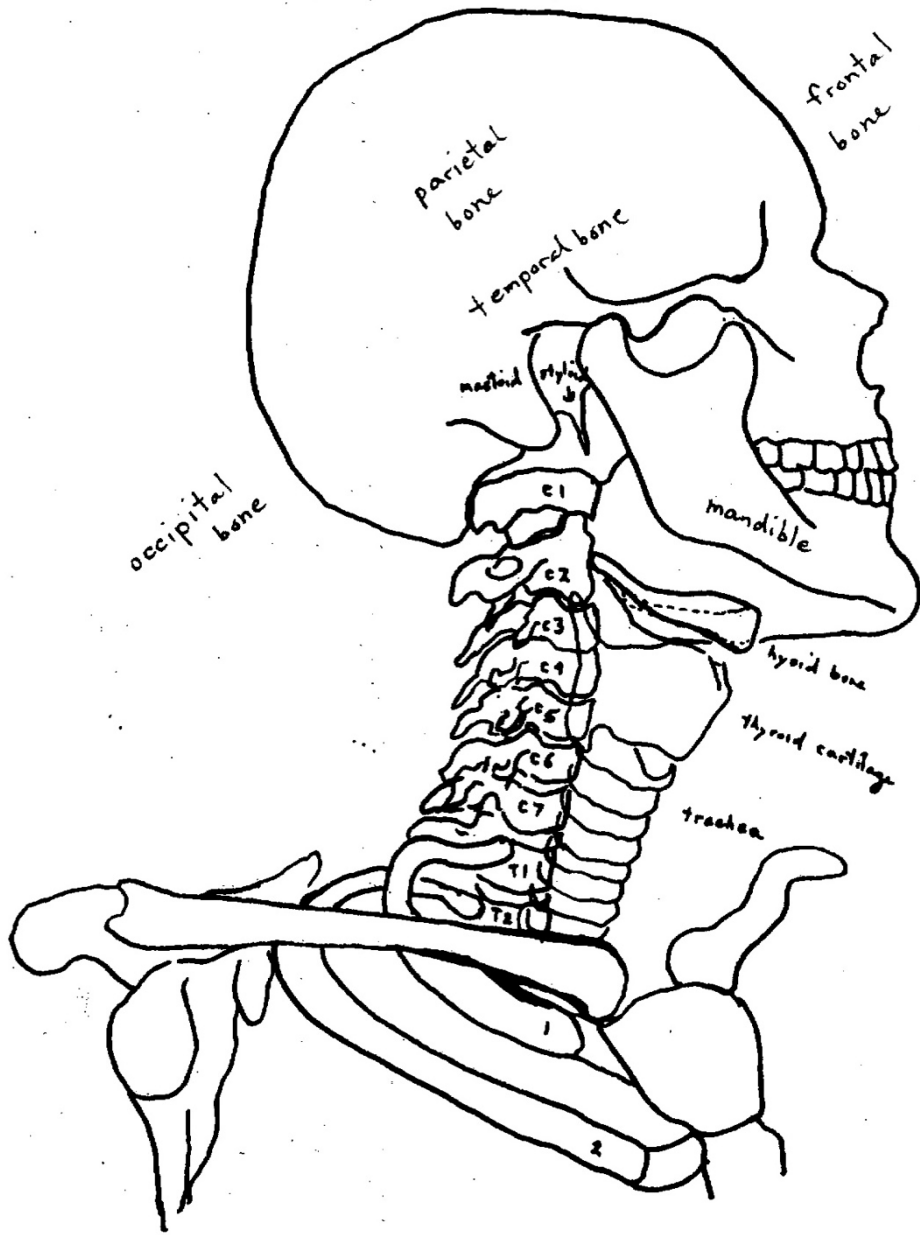
© IRENE DOWD 2002

back view of spine/trunk

BACK VIEW OF MALE STANDING WITH WEIGHT SHIFTED INTO LEFT HIP







occipital bone

parietal bone

temporal bone

frontal bone

mandibular condyle

mandible

hyoid bone

thyroid cartilage

trachea

C1

C2

C3

C4

C5

C6

C7

T1

T2

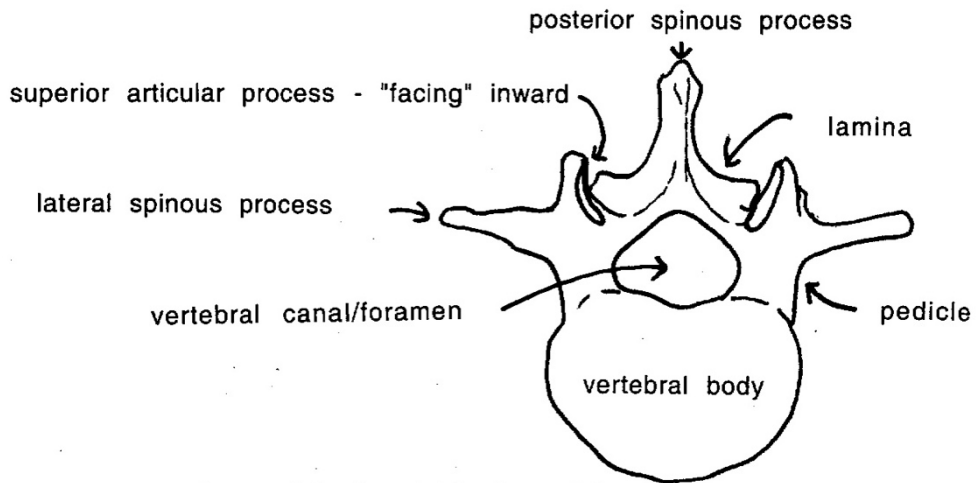
1

2



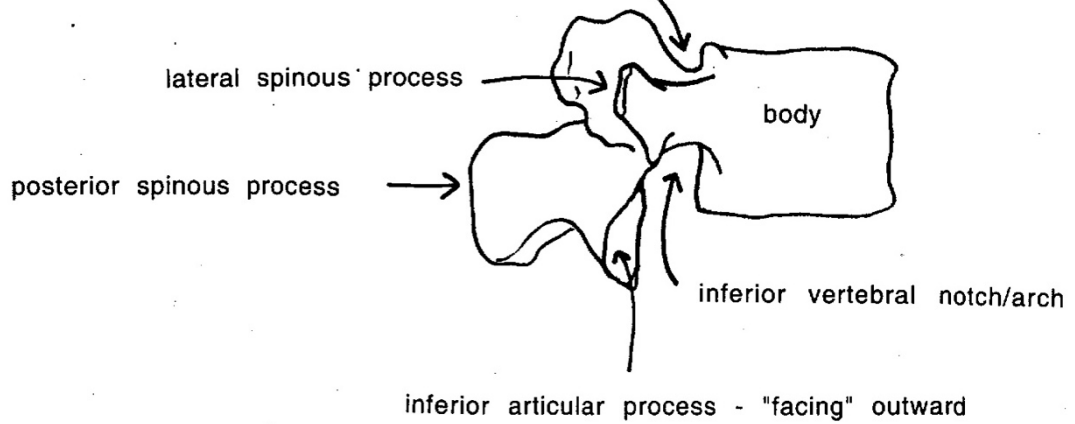
**THIRD LUMBAR VERTEBRA**

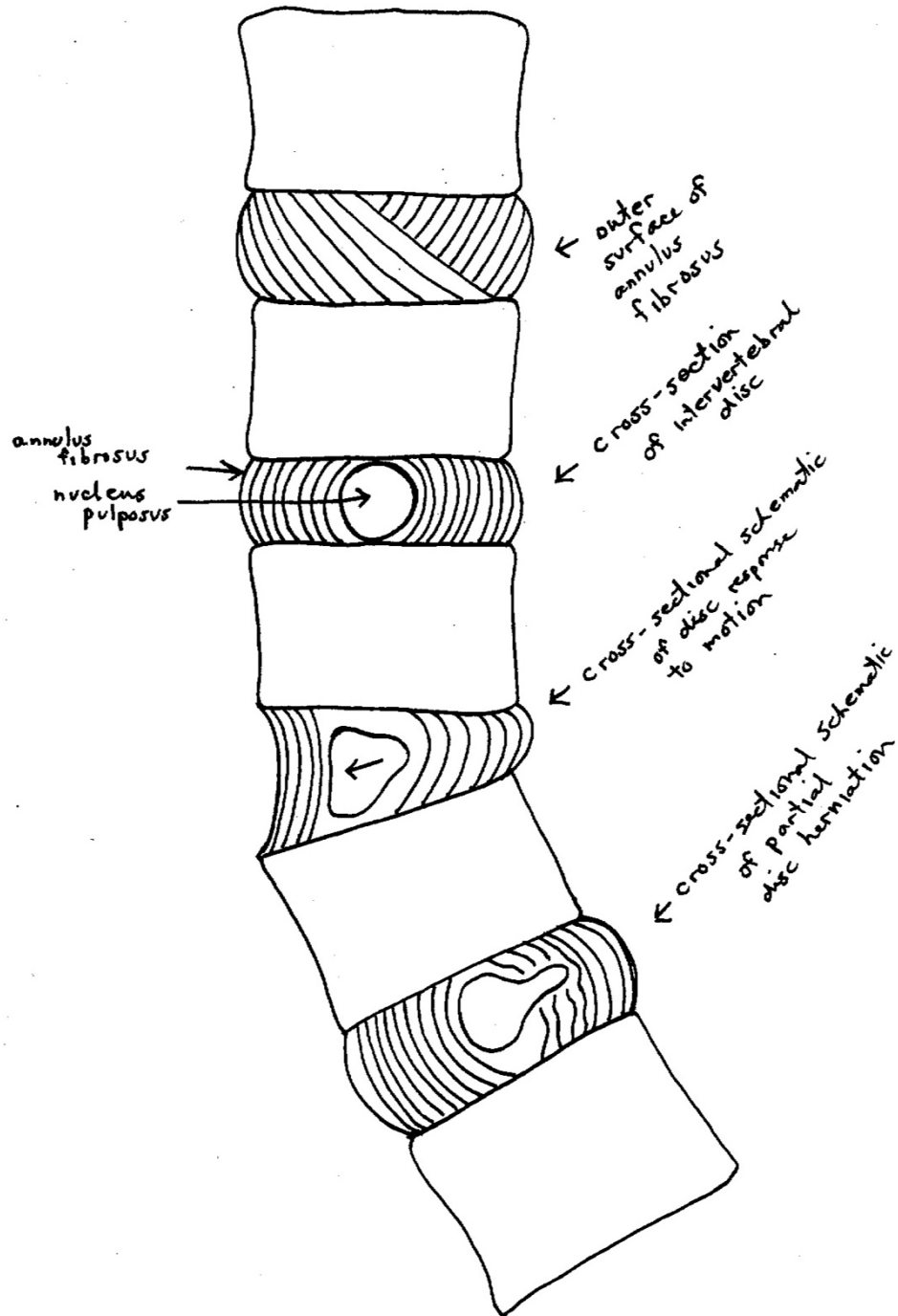
VIEW FROM ABOVE



superior vertebral notch/arch

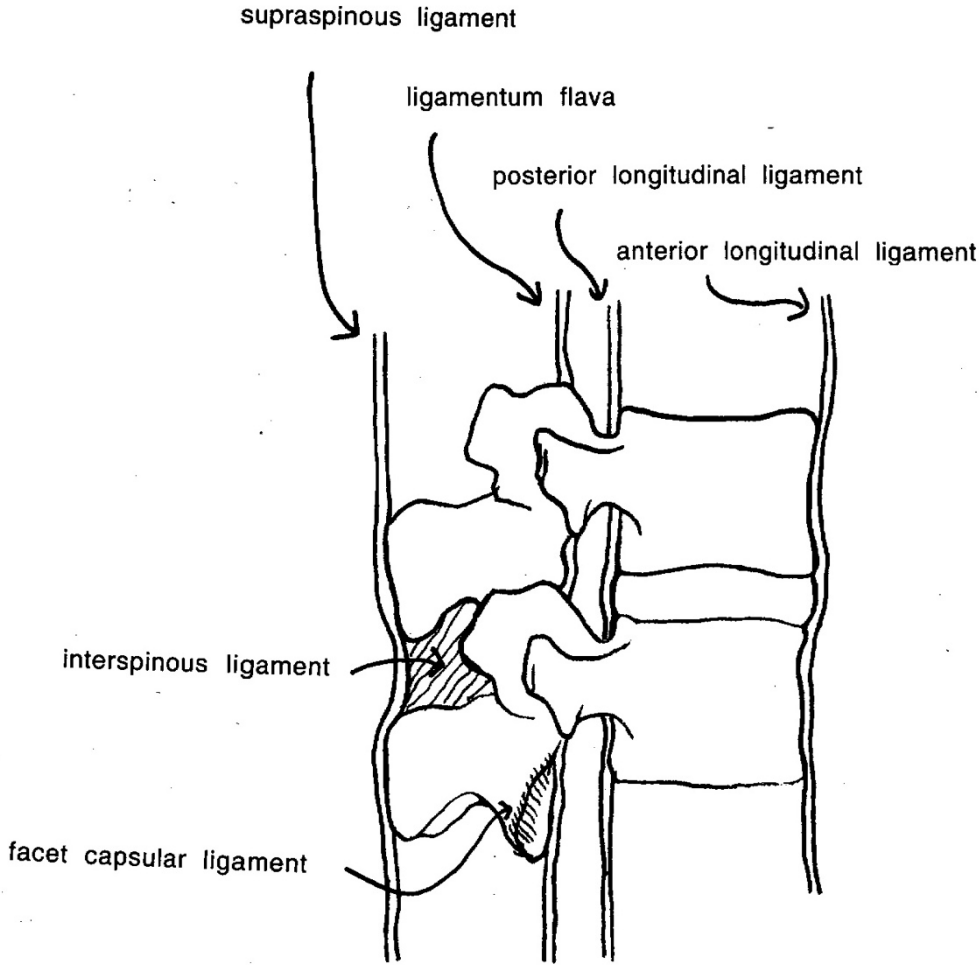
VIEW FROM THE SIDE





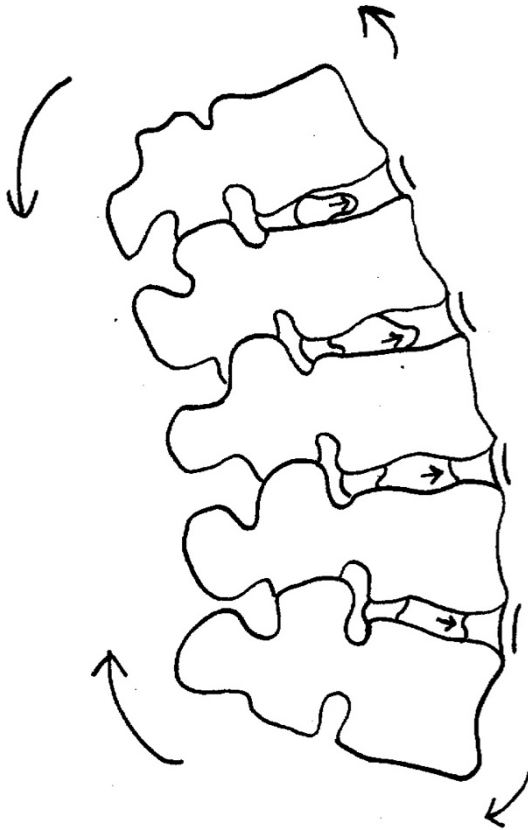
schematics of intervertebral discs

**LIGAMENTS OF THE SPINE  
(ILLUSTRATED IN LUMBAR REGION)**

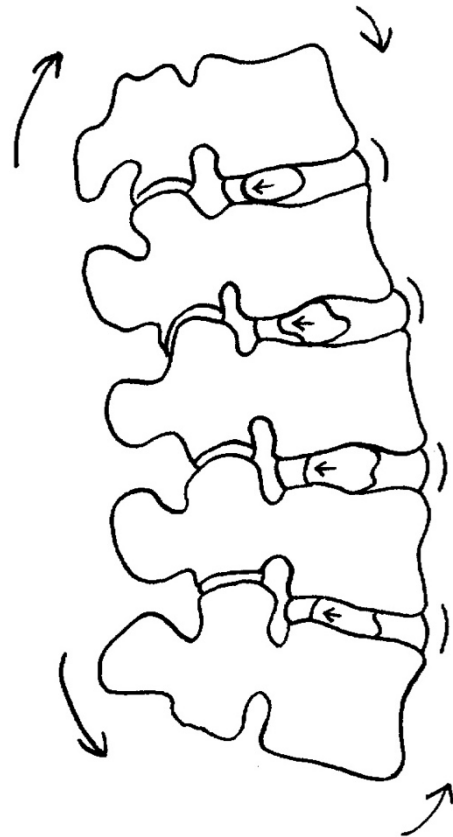


## LUMBAR SPINE IN MOTION

EXTENSION



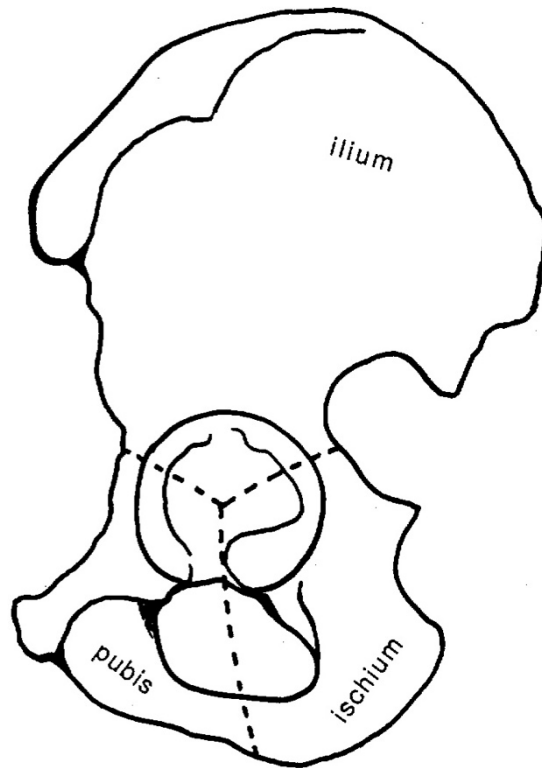
FLEXION

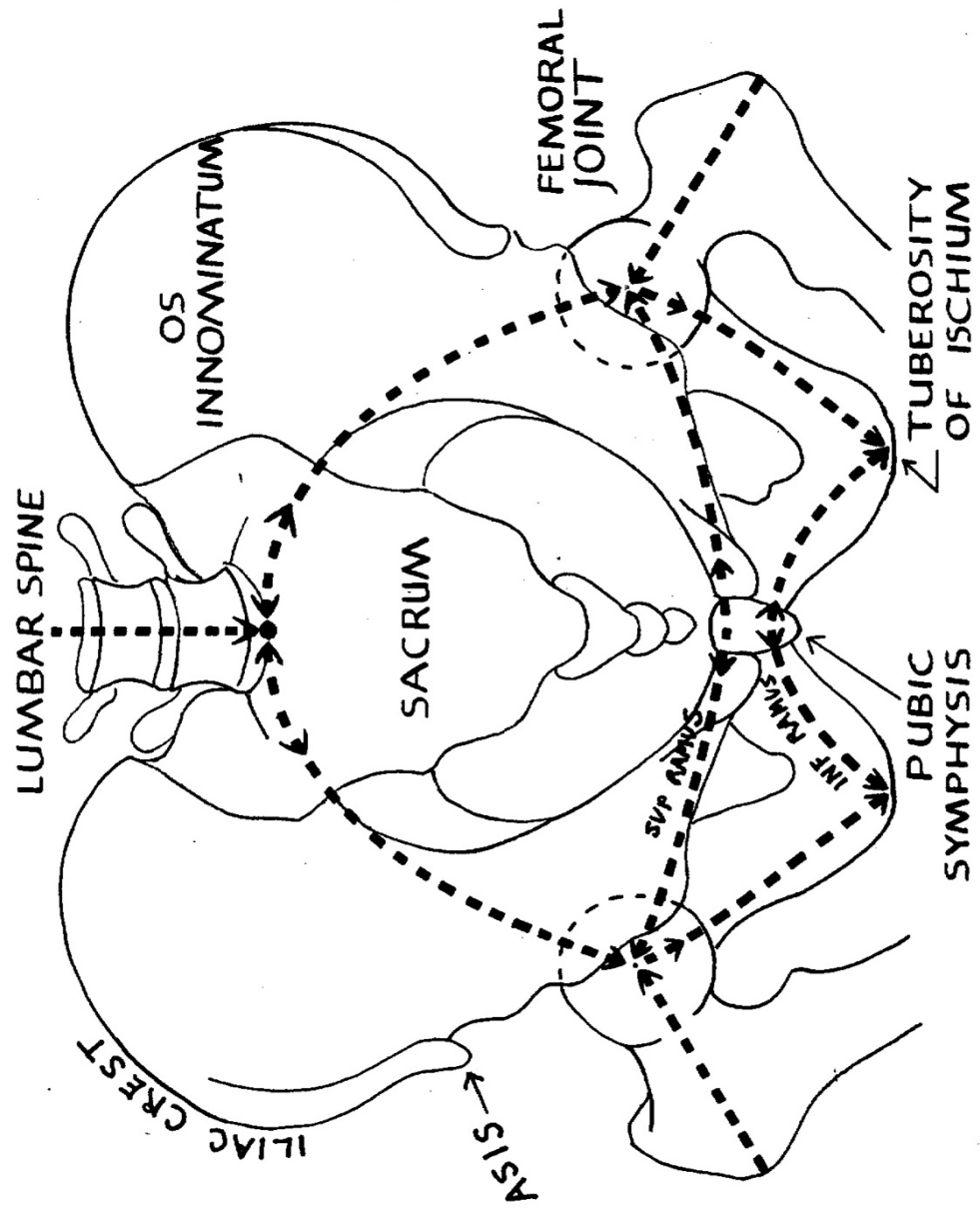


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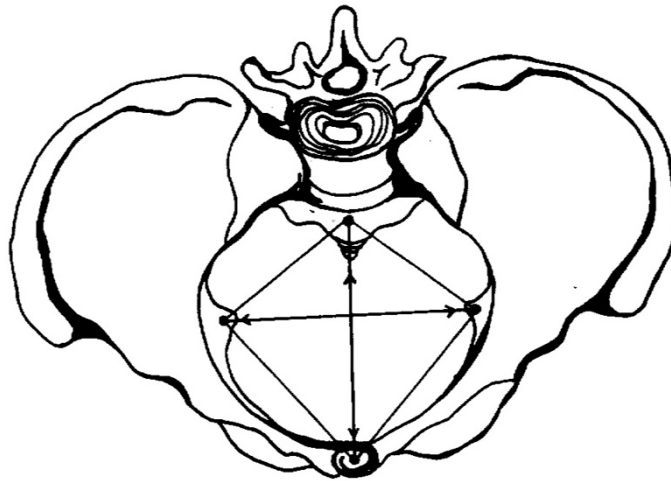
drawn from imaging of actual lumbar spine - showing motion of nucleus and periphery of intervertebral disc

SIDE VIEW OF THE LEFT PELVIS

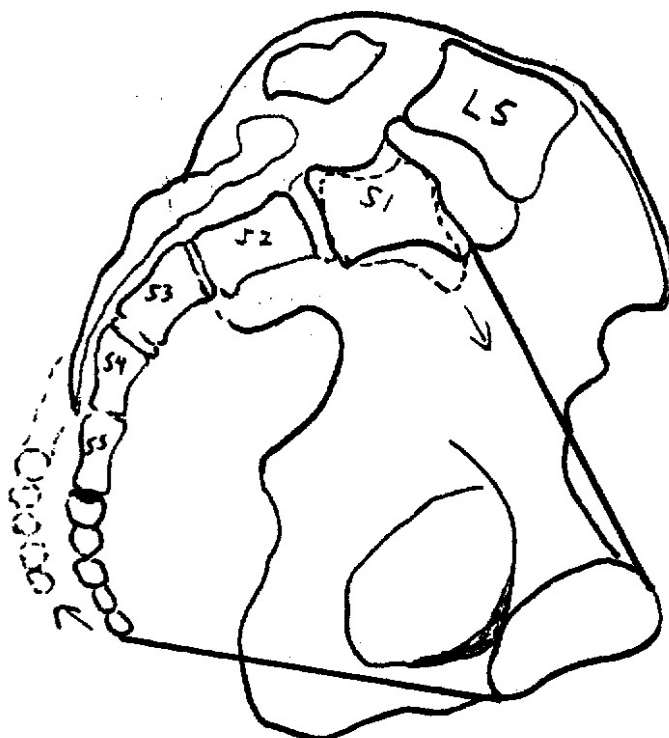




dimensions of pelvic floor aperture: distance between coccyx and pubic symphysis,  
distance between ischial tuberosities

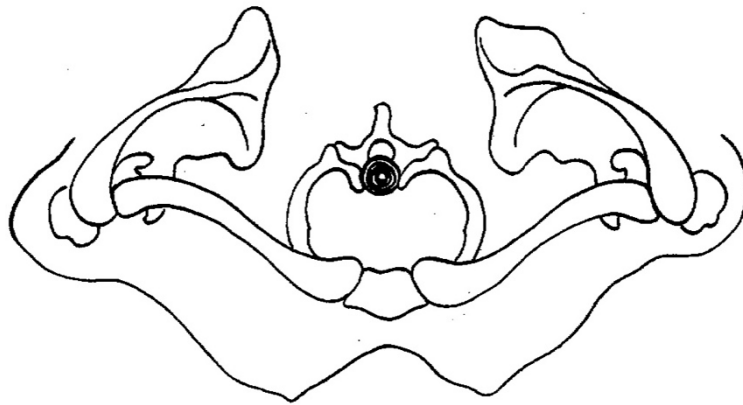
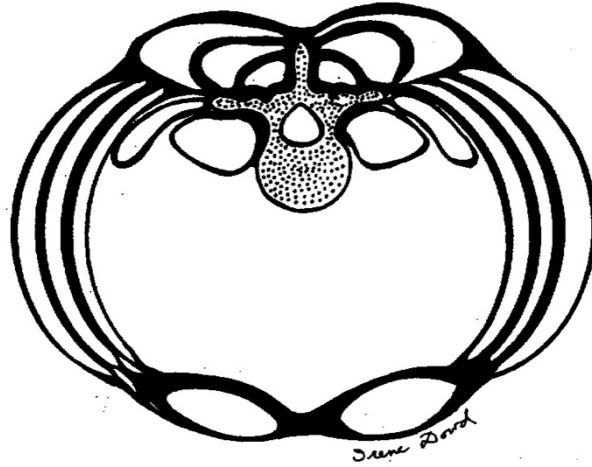


side view of pelvic half and lowest part of spine including sacrum/coccyx: dotted line represents sacral nutation (top of sacrum "nodding" forward, coccyx moving backward)



© Irene Dowd 2005





cross-section schematic of muscles of lower trunk and cross-section schematic of shoulder girdle sitting on first rib

CROSS-SECTION OF THE TRUNK  
AT LEVEL OF LOWER LUMBAR

muscles shown include:

erector spinae (superficial layers) &  
transverso-spinalis (deep layers)

abdominal wall

external abdominal oblique (superficial layer)

internal abdominal oblique (middle layer)

transversus abdominis (deepest layer)

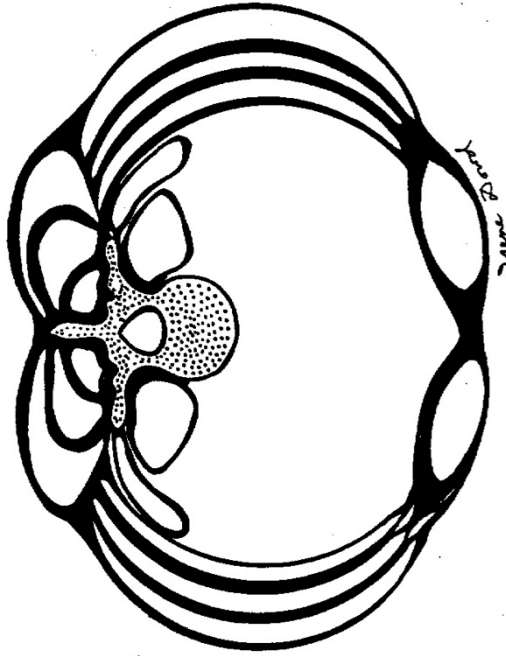
rectus abdominis (front)

quadratus lumborum

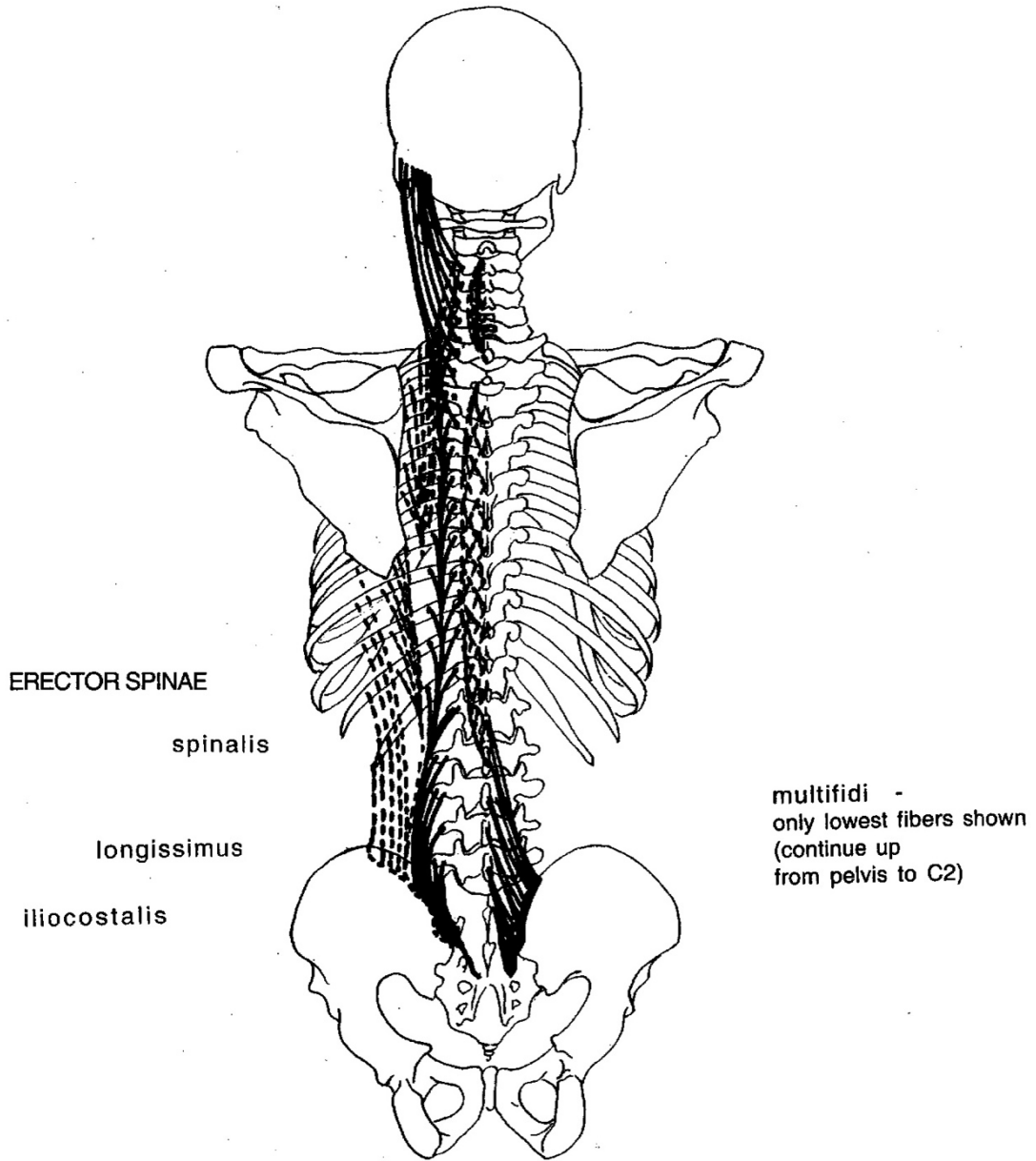
psoas

thick black lines represent fascia,  
also called connective tissue

dotted area represents lumbar vertebra



# MUSCLES OF THE BACK



# MUSCLES OF THE BACK

