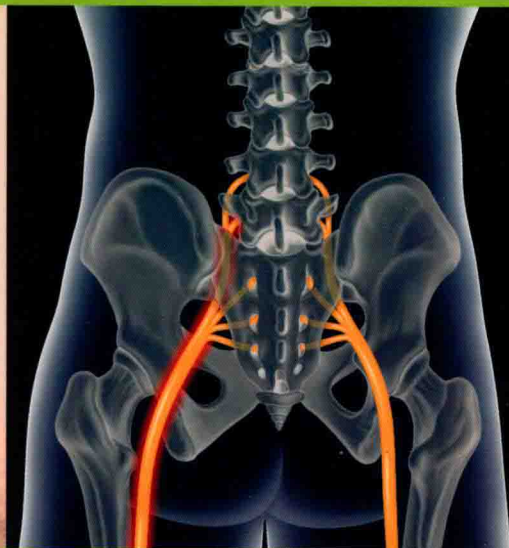




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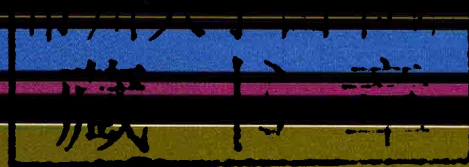


THE BMA GUIDE TO **BACK** CARE



**PREVENTING, DIAGNOSING, AND
TREATING BACK AND NECK CONDITIONS**

THE BMA GUIDE TO
BACK
CARE





LONDON, NEW YORK, MUNICH,
MELBOURNE, DELHI

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CONTENTS

ABOUT THIS BOOK

6

BACK & NECK ANATOMY

THE SPINE

10

THE SPINAL CANAL AND NERVES

14

MUSCLES AND LIGAMENTS

16

DIAGNOSIS & TREATMENT

SYMPTOMS CHARTS

20

NECK

20

MID-BACK

22

LOWER BACK AND LEG

24

ACUTE NECK AND

NERVE-ROOT PAIN

26

CERVICAL DISC HERNIATION

27

ACUTE TORTICOLLIS

28

WHIPLASH

29

CHRONIC NECK AND

NERVE-ROOT PAIN

30

FACET JOINT PAIN

31

MYOFASCIAL PAIN SYNDROME

32

DISC-RELATED PAIN

33

THORACIC PAIN

34

MECHANICAL

35

ACUTE LOW-BACK PAIN

36

ACUTE LUMBAR DYSFUNCTION

37

DISC HERNIATION AND SCIATICA

38

SACROILIAC STRAIN

39

CHRONIC LOW-BACK PAIN

40

DISC-RELATED PAIN

41

FACET JOINT PAIN

42

SPONDYLOLYSIS

43

AND SPONDYLOLISTHESIS

43

INSTABILITY SYNDROME

44

AND SACROILIAC STRAIN

44

NON-SPECIFIC/

45

LUMBAR DYSFUNCTION

45

CHRONIC SCIATICA

46

NON-SPECIFIC NERVE-ROOT PAIN

47

SPINAL STENOSIS

48

PIRIFORMIS SYNDROME

49

BUTTOCK AND COCCYX PAIN

50

COCCYDYNIA

51

SACROILIITIS

52

GLUTEUS MEDIUS

DYSFUNCTION

53

WHOLE SPINE CONDITIONS

54

INFLAMMATORY DISEASE

55

HYPERMOBILITY SYNDROME

56

POSTURAL PAIN

57

SCOLIOSIS

58

ACUTE VERTEBRAL COMPRESSION

FRACTURE

59

CAUSES OF BACK & NECK PAIN

MUSCULAR TENSION

62

ANKYLOSING SPONDYLITIS

63

SPONDYLOLYSIS AND

SPONDYLOLISTHESIS

64

VERTEBRAL COMPRESSION

FRACTURE

65

HYPERMOBILITY

AND INSTABILITY

66

DISCOGENIC PAIN

67

FACET JOINT STRAIN

68

SACROILIAC STRAIN

69

DISC HERNIATION

70

ACUTE TORTICOLLIS

71

WHIPLASH

72

SPINAL STENOSIS

AND DEGENERATION

73

SCOLIOSIS

74

COCCYDYNIA

75

PIRIFORMIS SYNDROME

76

GLUTEUS MEDIUS

DYSFUNCTION

77



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CONTENTS

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6

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THE SPINE

10

THE SPINAL CANAL AND NERVES

14

MUSCLES AND LIGAMENTS

16

DIAGNOSIS & TREATMENT

SYMPTOMS CHARTS

20

NECK

20

MID-BACK

22

LOWER BACK AND LEG

24

ACUTE NECK AND

NERVE-ROOT PAIN

26

CERVICAL DISC HERNIATION

27

ACUTE TORTICOLLIS

28

WHIPLASH

29

CHRONIC NECK AND

NERVE-ROOT PAIN

30

FACET JOINT PAIN

31

MYOFASCIAL PAIN SYNDROME

32

DISC-RELATED PAIN

33

THORACIC PAIN

34

MECHANICAL

35

ACUTE LOW-BACK PAIN

36

ACUTE LUMBAR DYSFUNCTION

37

DISC HERNIATION AND SCIATICA

38

SACROILIAC STRAIN

39

CHRONIC LOW-BACK PAIN

40

DISC-RELATED PAIN

41

FACET JOINT PAIN

42

SPONDYLOLYSIS

43

AND SPONDYLOLISTHESIS

43

INSTABILITY SYNDROME

44

AND SACROILIAC STRAIN

44

NON-SPECIFIC/

45

LUMBAR DYSFUNCTION

45

CHRONIC SCIATICA

46

NON-SPECIFIC NERVE-ROOT PAIN

47

SPINAL STENOSIS

48

PIRIFORMIS SYNDROME

49

BUTTOCK AND COCCYX PAIN

50

COCCYDYNIA

51

SACROILIITIS

52

GLUTEUS MEDIUS

DYSFUNCTION

53

WHOLE SPINE CONDITIONS

54

INFLAMMATORY DISEASE

55

HYPERMOBILITY SYNDROME

56

POSTURAL PAIN

57

SCOLIOSIS

58

ACUTE VERTEBRAL COMPRESSION

FRACTURE

59

CAUSES OF BACK & NECK PAIN

MUSCULAR TENSION

62

ANKYLOSING SPONDYLITIS

63

SPONDYLOLYSIS AND

SPONDYLOLISTHESIS

64

VERTEBRAL COMPRESSION

FRACTURE

65

HYPERMOBILITY

AND INSTABILITY

66

DISCOGENIC PAIN

67

FACET JOINT STRAIN

68

SACROILIAC STRAIN

69

DISC HERNIATION

70

ACUTE TORTICOLLIS

71

WHIPLASH

72

SPINAL STENOSIS

AND DEGENERATION

73

SCOLIOSIS

74

COCCYDYNIA

75

PIRIFORMIS SYNDROME

76

GLUTEUS MEDIUS

DYSFUNCTION

77

WHERE TO FIND HELP

CONSULTING YOUR DOCTOR	80
CONSULTING A SPECIALIST	82
TREATMENT WITH DRUGS	84
TREATMENT WITH INJECTIONS	86
TREATMENT WITH SURGERY	88
CONSULTING A PHYSIOTHERAPIST	90
CONSULTING AN OSTEOPATH	94
CONSULTING A CHIROPRACTOR	96
USING MASSAGE	98
CONSULTING AN ACUPUNCTURIST	100
RELAXATION TECHNIQUES	102
OTHER THERAPIES	104

BACK & NECK MAINTENANCE

HOW THE BACK WORKS	108
WHO IS MOST AT RISK?	110
IMPROVING YOUR POSTURE	112
EXERCISE AND SPORT	116
THE BENEFITS OF STRETCHING	118
EATING FOR HEALTH	120

STRATEGIES FOR PREVENTING PAIN

AT THE OFFICE	124
LIFTING AND CARRYING	128
DOING HOUSEWORK	130

WORKING IN

YOUR GARDEN	132
DRIVING YOUR CAR	134
DURING PREGNANCY	136
CARING FOR YOUNG CHILDREN	138

STRATEGIES FOR COPING WITH PAIN

COPING WITH PAIN	142
PERCEPTION OF PAIN	144
PSYCHOLOGICAL FACTORS IN BACK PAIN	146
PAIN RELIEF THROUGH RELAXATION	148
LYING DOWN AND SLEEPING	150
WASHING AND DRESSING	154
MOVING AROUND	156

REHABILITATION EXERCISES

NECK AND BACK	160
BACK AND BUTTOCKS	178

GLOSSARY	214
USEFUL ADDRESSES	216
INDEX	218
ACKNOWLEDGMENTS	224

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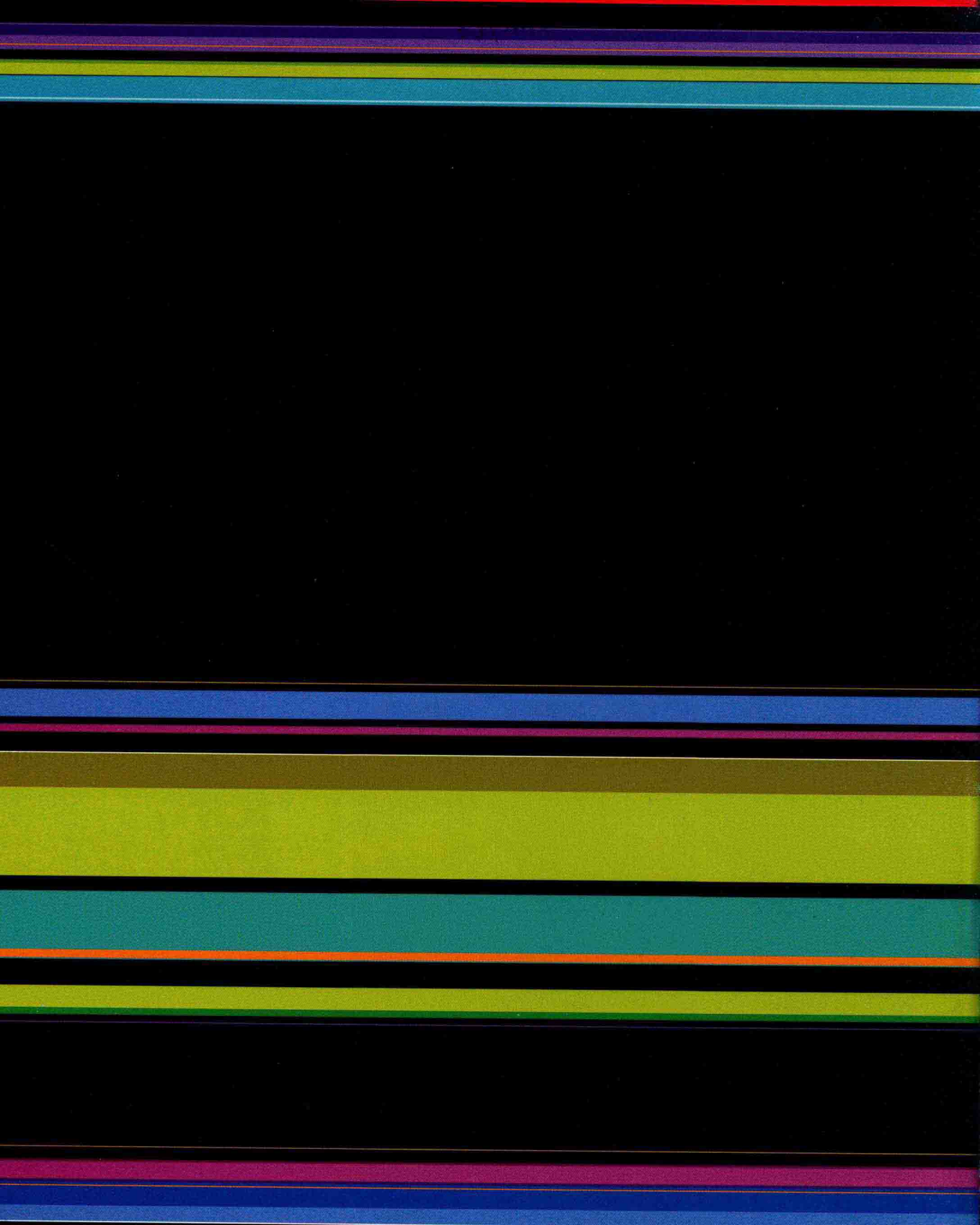
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HPC is a musculoskeletal physiotherapist who gained a Masters degree in Physical Rehabilitation in Warsaw, Poland, after which she worked in Warsaw's Rehabilitation Centre. Since moving to the UK in 1986 she has attended numerous postgraduate training courses in manual therapy, gaining an extensive knowledge of Maitland, Cyriax, McKenzie, and neurodynamic methods. A specialist in the rehabilitation of neck and back conditions, with a special interest in sports injuries and hypermobility syndrome, Eva currently works at the 999 Medical & Diagnostic Centre, London.

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CONTENTS

ABOUT THIS BOOK

6

BACK & NECK ANATOMY

THE SPINE

10

THE SPINAL CANAL AND NERVES

14

MUSCLES AND LIGAMENTS

16

DIAGNOSIS & TREATMENT

SYMPTOMS CHARTS

20

NECK

20

MID-BACK

22

LOWER BACK AND LEG

24

ACUTE NECK AND

NERVE-ROOT PAIN

26

CERVICAL DISC HERNIATION

27

ACUTE TORTICOLLIS

28

WHIPLASH

29

CHRONIC NECK AND

NERVE-ROOT PAIN

30

FACET JOINT PAIN

31

MYOFASCIAL PAIN SYNDROME

32

DISC-RELATED PAIN

33

THORACIC PAIN

34

MECHANICAL

35

ACUTE LOW-BACK PAIN

36

ACUTE LUMBAR DYSFUNCTION

37

DISC HERNIATION AND SCIATICA

38

SACROILIAC STRAIN

39

CHRONIC LOW-BACK PAIN

40

DISC-RELATED PAIN

41

FACET JOINT PAIN

42

SPONDYLOLYSIS

43

AND SPONDYLOLISTHESIS

43

INSTABILITY SYNDROME

44

AND SACROILIAC STRAIN

44

NON-SPECIFIC/

45

LUMBAR DYSFUNCTION

45

CHRONIC SCIATICA

46

NON-SPECIFIC NERVE-ROOT PAIN

47

SPINAL STENOSIS

48

PIRIFORMIS SYNDROME

49

BUTTOCK AND COCCYX PAIN

50

COCCYDYNIA

51

SACROILIITIS

52

GLUTEUS MEDIUS

DYSFUNCTION

53

WHOLE SPINE CONDITIONS

54

INFLAMMATORY DISEASE

55

HYPERMOBILITY SYNDROME

56

POSTURAL PAIN

57

SCOLIOSIS

58

ACUTE VERTEBRAL COMPRESSION

FRACTURE

59

CAUSES OF BACK & NECK PAIN

MUSCULAR TENSION

62

ANKYLOSING SPONDYLITIS

63

SPONDYLOLYSIS AND

SPONDYLOLISTHESIS

64

VERTEBRAL COMPRESSION

FRACTURE

65

HYPERMOBILITY

AND INSTABILITY

66

DISCOGENIC PAIN

67

FACET JOINT STRAIN

68

SACROILIAC STRAIN

69

DISC HERNIATION

70

ACUTE TORTICOLLIS

71

WHIPLASH

72

SPINAL STENOSIS

AND DEGENERATION

73

SCOLIOSIS

74

COCCYDYNIA

75

PIRIFORMIS SYNDROME

76

GLUTEUS MEDIUS

DYSFUNCTION

77

WHERE TO FIND HELP

CONSULTING YOUR DOCTOR	80
CONSULTING A SPECIALIST	82
TREATMENT WITH DRUGS	84
TREATMENT WITH INJECTIONS	86
TREATMENT WITH SURGERY	88
CONSULTING A PHYSIOTHERAPIST	90
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RELAXATION TECHNIQUES	102
OTHER THERAPIES	104

BACK & NECK MAINTENANCE

HOW THE BACK WORKS	108
WHO IS MOST AT RISK?	110
IMPROVING YOUR POSTURE	112
EXERCISE AND SPORT	116
THE BENEFITS OF STRETCHING	118
EATING FOR HEALTH	120

STRATEGIES FOR PREVENTING PAIN

AT THE OFFICE	124
LIFTING AND CARRYING	128
DOING HOUSEWORK	130

WORKING IN

YOUR GARDEN	132
DRIVING YOUR CAR	134
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STRATEGIES FOR COPING WITH PAIN

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PAIN RELIEF THROUGH RELAXATION	148
LYING DOWN AND SLEEPING	150
WASHING AND DRESSING	154
MOVING AROUND	156

REHABILITATION EXERCISES

NECK AND BACK	160
BACK AND BUTTOCKS	178

GLOSSARY	214
USEFUL ADDRESSES	216
INDEX	218
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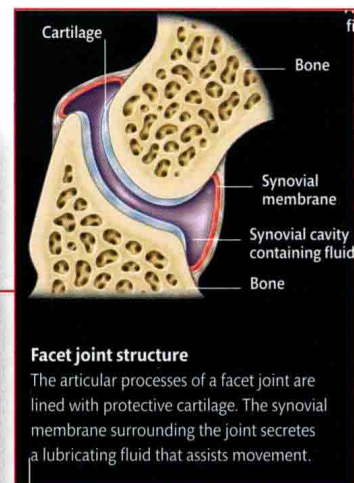
Opening with an introduction to back and neck anatomy, this book profiles a range of back and neck conditions, their causes, and the treatment options available. The following chapters offer advice on preventing problems

using a range of simple strategies and how to cope with pain and adapt your behaviour. The closing section provides a range of rehabilitation exercises which can also be used as part of a fitness programme.

BACK AND NECK ANATOMY

This section provides an insight into the anatomy of your back and neck, explaining the complex structure of your spine and how it functions with the nerves, muscles, and ligaments surrounding it.

Anatomical artworks help to illustrate the individual elements of the bones, nerves, muscles, and ligaments of your back and neck



Facet joint structure

The articular processes of a facet joint are lined with protective cartilage. The synovial membrane surrounding the joint secretes a lubricating fluid that assists movement.

Detailed breakdowns of the structures in your back and neck build up a full anatomical profile

DIAGNOSIS AND TREATMENT

Opening with three symptoms diagnosis charts, this section profiles a range of neck and back conditions with information on prognoses and therapy options, along with sample medical and physiotherapy treatment tables.



Treatment tables

provide examples of the treatments and therapies your doctor and physiotherapist may suggest at different stages of your rehabilitation

CAUSES OF BACK AND NECK PAIN

This section provides further information on the medical causes of the back and neck conditions outlined in the previous chapter, with comprehensive profiles and fully annotated anatomical artworks.

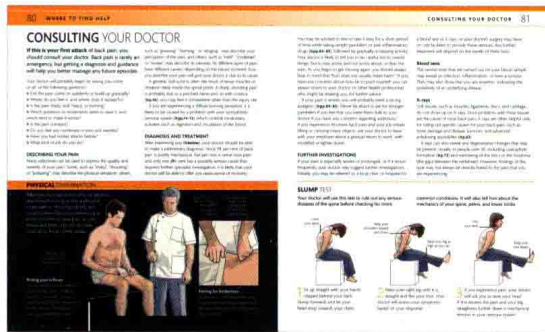


Anatomical illustrations

show at glance how each of the various causes affect the bones, nerves, muscles, and ligaments of your back and neck

WHERE TO FIND HELP

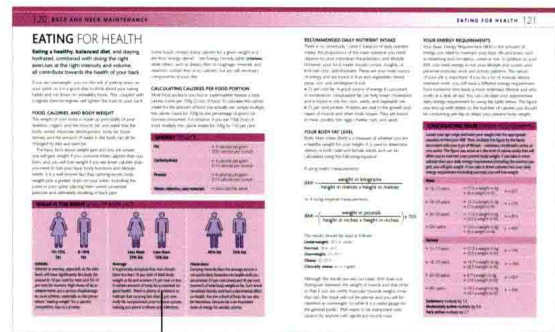
This section gives you an insight into the process of diagnosis, and provides useful details of the wide range of medical and complementary treatment options now available to sufferers of back and neck pain.



Feature box panels describe the types of treatment you may be given by each of the various healthcare practitioners

BACK AND NECK MAINTENANCE

Explaining the role your back and neck play in most bodily movements, this section discusses key risk factors and offers guidance on various strategies you can use to reduce your risk of developing problems in the first place.



Charts and infographics make key facts and figures clear and easy to digest

STRATEGIES FOR PREVENTING PAIN

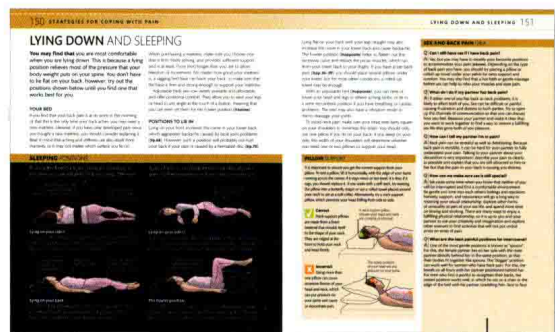
This section shows you the ideal postures and movements for a range of common day-to-day activities at home and work, in order to help reduce your chances of developing back or neck pain, or aggravating an existing condition.



Annotated illustrations present key information on equipment and body positions

STRATEGIES FOR COPING WITH PAIN

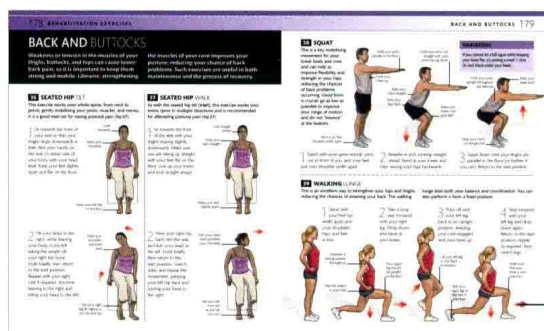
This section arms you with helpful advice on coping with the often debilitating effects of back and neck conditions, along with a range of strategies to help you manage your pain effectively on a more long-term basis.



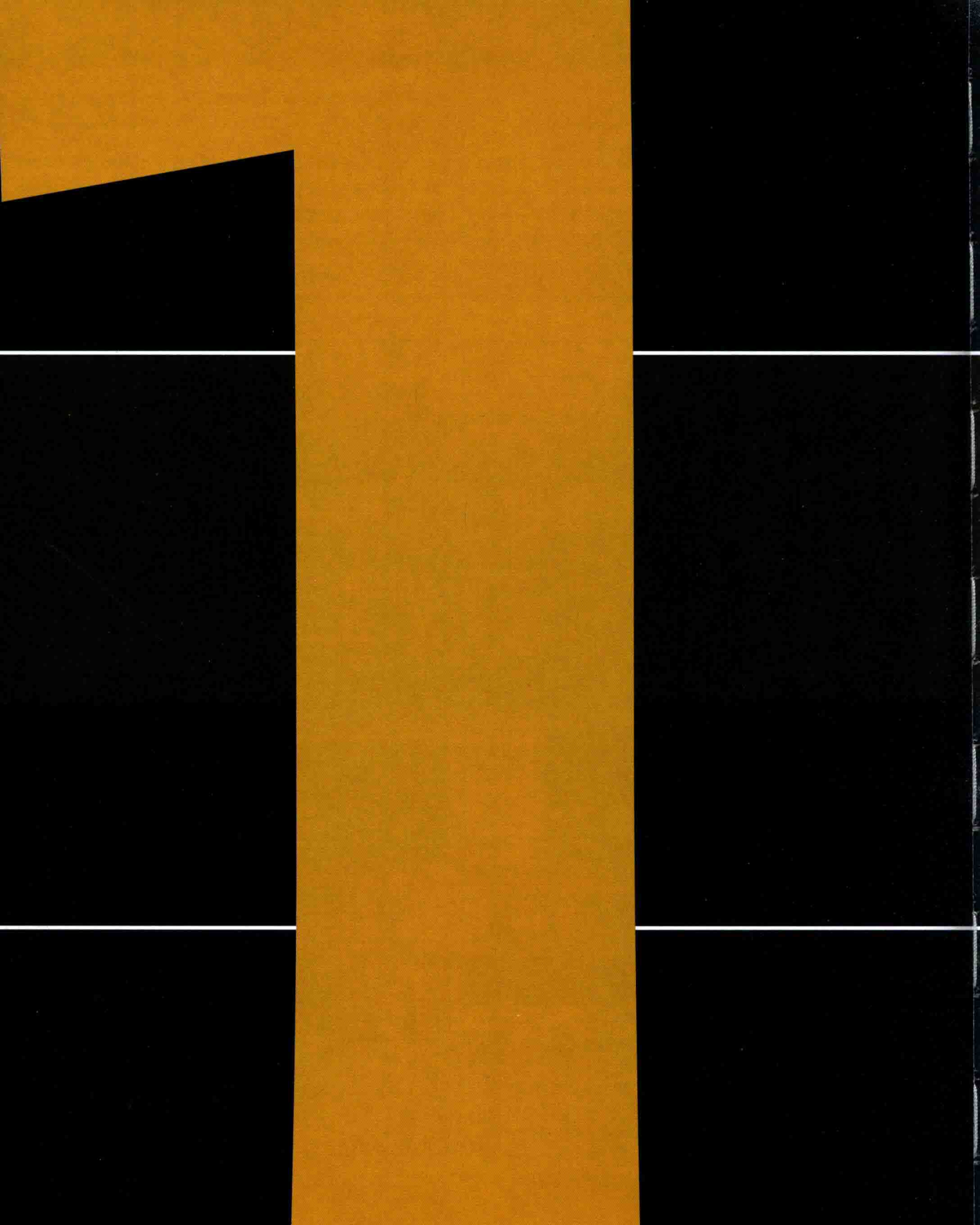
Q&A panels provide clear answers to the key issues that patients tend to raise when they are undergoing treatment

REHABILITATION EXERCISES

In this section, clear instructions and illustrations guide you through a comprehensive range of exercises that your physiotherapist may recommend to you as part of a rehabilitation programme.



Step-by-step artworks guide you through each exercise in a practical, user-friendly manner

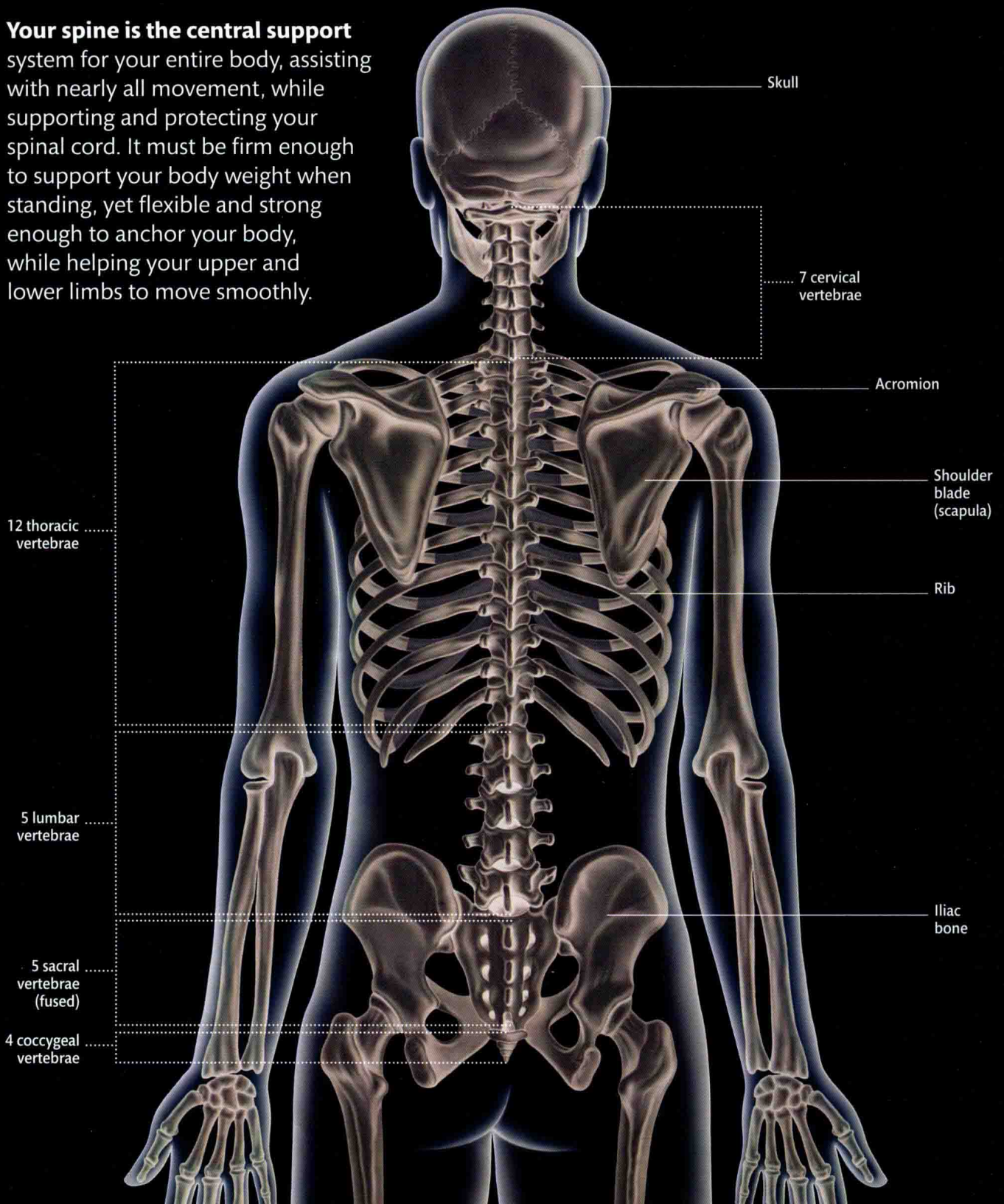


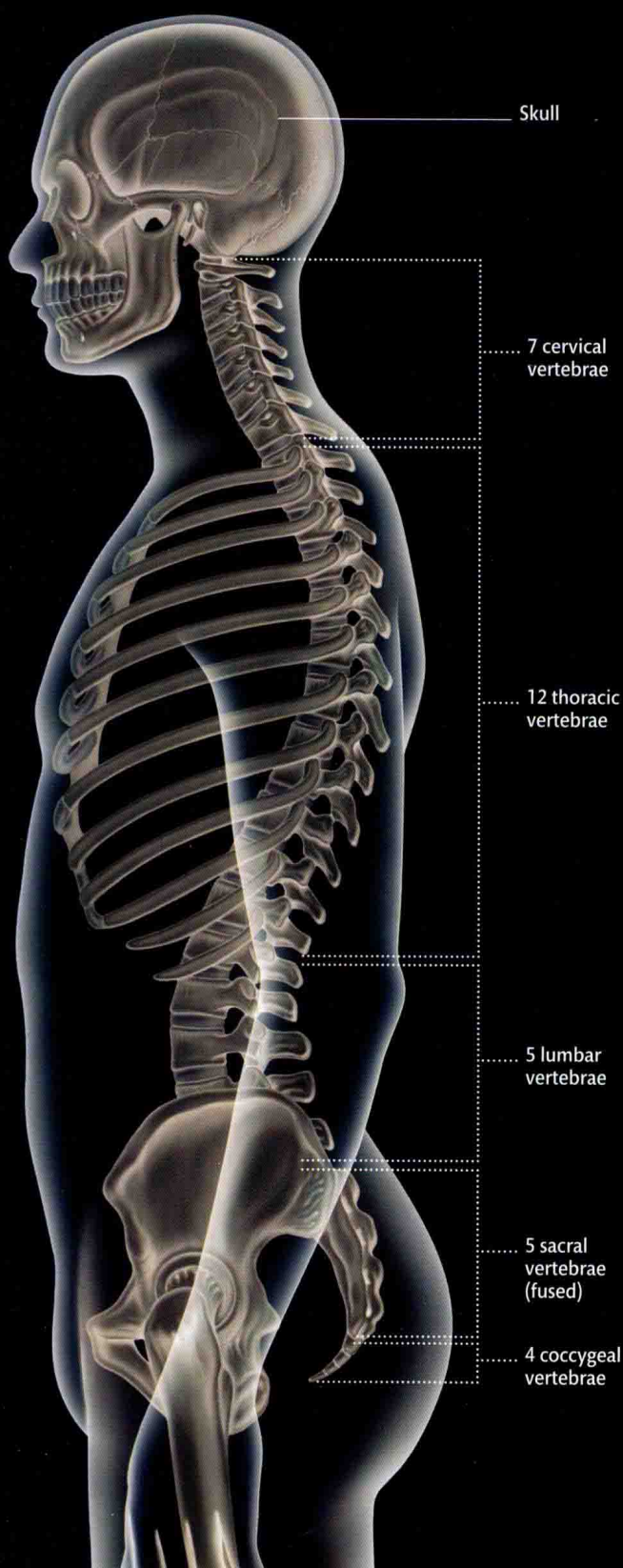
BACK AND NECK ANATOMY

This chapter gives an overview of basic anatomy, helping you to understand the structure of your back and neck, and how your body functions. Detailed anatomical diagrams examine the spine and explain how it links up with the nerves, muscles, and ligaments that surround it.

THE SPINE

Your spine is the central support system for your entire body, assisting with nearly all movement, while supporting and protecting your spinal cord. It must be firm enough to support your body weight when standing, yet flexible and strong enough to anchor your body, while helping your upper and lower limbs to move smoothly.





THE SPINAL COLUMN

Your spine is a column of up to 34 bones called vertebrae. All but 10 of these vertebrae are movable and they are divided into three groups: seven cervical (neck), 12 thoracic (mid-back), and five lumbar (lower back). The remaining 10 vertebrae are located at the base of the spine; five of these are fused together to form a triangular-shaped bone – the sacrum, which sits between your two iliac bones to form your pelvis. Below this there are three to five (most people have four) fused or partially mobile segments which form your coccyx, the rudimentary “tail” inherited from early human ancestors.

The cervical spine

The seven cervical vertebrae, or neck bones, provide the main support for your skull and allow you to rotate and nod your head. The spine is a mobile structure and can bend and rotate in almost any direction. The cervical region is the most mobile section of the spine.

The thoracic spine

Each of the 12 thoracic vertebrae of the mid-back is joined to a rib on either side, with the resulting ribcage surrounding and protecting your heart, lungs, and liver. When you inhale fully, the thoracic spine extends slightly as the ribs rise; when you exhale, the thoracic spine flexes. When you twist your upper body, it rotates around your thoracic spine.

The lumbar spine

When you are upright – during most of your waking hours – the five lumbar vertebrae must bear the bulk of your weight and provide a flexible link between the upper and lower parts of your body.

The sacral spine

Below the five lumbar vertebrae, the five sacral vertebrae fuse together to form a bone called the sacrum. This bone is noticeably different in men and women, with the sacrum being longer and narrower in men than it is in women. The sacral vertebrae are connected to the vertebrae at the end of the spine – known as the coccygeal vertebrae – by a joint called the sacrococcygeal symphysis. Together, the coccygeal vertebrae form the coccyx, or tail bone.

THE VERTEBRAE

The main part of a vertebra is more or less cylindrical, with a flat surface at the top and bottom, and a small hole running vertically through each, towards the back edge. When your vertebrae are aligned, these form a channel – the spinal or neural canal – that contains and protects your spinal cord.

The back of each vertebra has seven projections, called processes. These are arranged in three pairs with an odd one out – the spinous process. Your spinous processes are the knobby bits that run all the way down your spine.

The spinous process sits in between the six paired processes (three on either side). Two of the pairs – the upper articular processes and the lower articular processes – act as joints,

linking your vertebrae and strengthening your spine.

Your back muscles are attached to the remaining pair, the transverse processes, and also to the spinous process, all of which provide anchorage as your muscles contract and relax.

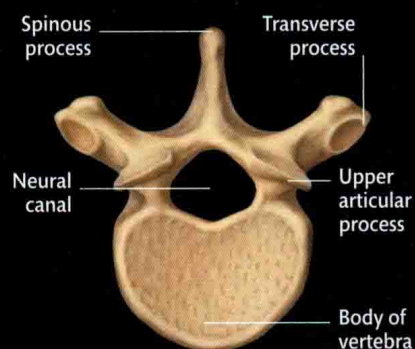
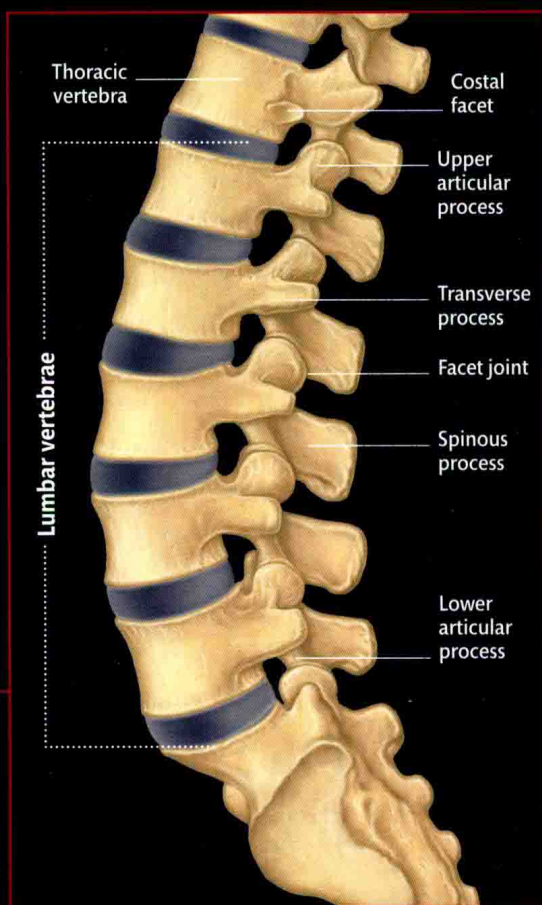
THE FACET JOINTS

Each of the vertebrae in your spinal column meets at a facet joint. It is here that the lower articular processes of the first vertebra link up, or “articulate”, with the upper articular processes of the second. The surfaces of these processes are smooth and flat, like the facets of a diamond – hence the reason that the joints are called facet joints, as well as being known as posterior joints.

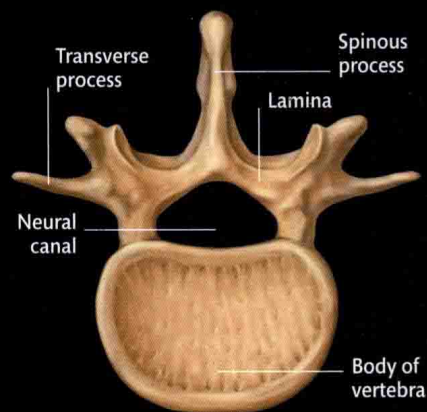
STRUCTURE OF THE VERTEBRAE

No two vertebrae are exactly alike. Although they fit together perfectly, they all have individual characteristics. Shown below is a cross-section of one of the lowest two thoracic vertebrae,

which have small flat facets (costal facets) where they are attached to the ribs, and a cross-section of one of the first two lumbar vertebrae, which have much larger processes (spinous processes).



Thoracic vertebrae



Lumbar vertebrae