

Envoi

Although this short book is written primarily in respect to practice within the United Kingdom, it is worth noting that other countries, and even the Council of Europe, are concerned about the current, ongoing situation regarding musculoskeletal medicine. In a recent short resolution by the Parliamentary Assembly, comments and recommendation were made that demand close examination. While this resolution was made in respect to a wider range of nonconventional medicine, it made particular reference to osteopathy and chiropractic (60).

It was noted that “alternative, complementary and other forms of medicine” were “growing in importance.” Certainly in the case of musculoskeletal medicine, it is the patients’ increasing recourse to these therapies that is growing, rather than any intrinsic virtue these may have. These are two distinct matters, their confusion evidence of woolly thinking. On the other hand, the real importance of musculoskeletal medicine lies in the enormous collective incidence of the various problems it addresses, together with the common failure of the medical establishment to meet the challenge that this presents.

It was further noted that “patients themselves are increasingly calling for the use of different forms of treatment.” This is true, but such calls are most common where current systems of delivery of conventional medicine are perceived to have failed them or are expected to fail them. This must be taken seriously by the medical profession.

The need to preserve the patient’s freedom of choice was stressed, but no mention was made of the necessity that such choice be informed. Proven efficacy and safety must surely be rated higher than unsubstantiated and sometimes frankly invalid diagnostic and therapeutic claims. Very sensibly, reference was made to support not being given to “dubious and intolerant” practices. This is clearly admirable advice, but should it not be extended to dubious and intolerant theories underlying those practices?

The assembly calls for member states to “model their approach on their neighbours’ experiments.” Without doubt this is wise counsel, provided these experiments have been scrupulously carried out and have been shown to have revealed valid

results. The resolution recommends that “appropriate courses should be offered by universities.” Yes indeed. But the crucial question has to be which courses are appropriate and how they may be identified. While this aspect was not addressed in this short resolution, it remains essential that courses based on false premises are not included. Nonetheless, this document proceeded to “call on member states to promote official recognition.” Prior to any such recommendation being adopted, it is surely mandatory for adequate studies to have been undertaken, reported upon, and discussed – without doctrinaire bias.

Since 1968 the Fédération Internationale de Médecine Manuelle (FIMM) has been the worldwide focus for doctors with an interest in this field. Over the years, its members have produced much original work, some of real scientific merit, in spite of some being less meaningful, while it has moved slowly toward coordination of beliefs, practices, and teaching amongst an increasing number of member associations (45). It is worth noting the widely canvassed, though questionable, view that references to work published more than 10 years ago are insignificant. Surely a logically argued case, challenged year after year without demonstration of invalidity, is more significant than a report as yet inadequately challenged. It is on this basis that scientific knowledge may truly evolve.

As mentioned in the preceding chapter, over the past few years FIMM has undergone significant change. It has radically altered its statutes, expressly to permit the admission to its ranks of organizations previously debarred, by virtue of their memberships not being exclusively medical. I understand that, over this brief period, the membership has increased very considerably. At the same time, of course, FIMM has inevitably rendered itself substantially alternative or complementary. It is no longer exclusively representative of mainstream doctors working in this field. The same considerations apply to the British Institute of Musculoskeletal Medicine (BIMM).

A further matter is of substantial significance: I understand that an European–American Academy of Osteopathy has been set up in Germany, with the express remit to teach this particular alternative to orthodox physicians in Europe. It has to be remembered that osteopathy is fundamentally alternative in origin, theory, and therapeutic intent. This being the case, and in view of the common efficacy and, in the right hands, the remarkable safety of those simple therapeutic procedures outlined in the preceding chapters, it would seem appropriate for the medical establishment now to review the situation as a matter of some urgency.

After all, there is nothing alternative or complementary about vertebral manipulation.

In light of the recommendation of the Parliamentary Assembly (60), it appears that we now have even more reason to reintegrate simple musculoskeletal measures within the compass of the medical establishment, on the sound, scientific bases that have been shown to exist (6), with neither help nor hindrance from any organization that is, by declared intent, not firmly committed to the principles of orthodox medicine. This is a proposition that should appeal to the “new-look”¹ General Medical Council and to deans and staffs of medical schools, as also to interested professional bodies such as the Pain Society. And should not the National Back Pain Association play a part in leaning on the government to implement such improvements?

However, chaos still reigns! It seemed reasonable to hope for an ultimately positive response from the orthodox medical profession following the 2001 conference at the Royal Society of Medicine, “Back Pain – Whose Responsibility?” While this conference was limited to consideration of the lumbar spine, it brought together a number of aspects of the current problem, including some innovative approaches and a sobering view of funding from the Department of Work and Pensions. There was, however, a lamentable paucity of representation of the teaching hospitals, upon whom the profession must rely if it is to provide a more effective service to the patient. Sadly, too little time was set aside for discussion. It is to be hoped that the joint meeting of the Royal Society of Medicine and BIMM that was held in May 2004 has proved to be of greater practical value both to patients and to the medical profession.

However contentious the subject, it seems inescapable that the medical establishment now has the opportunity and the capability to substantially improve the lot of the patient – but only with the abandonment of faith and by publically discarding beliefs which have been shown to be scientifically untenable.

¹This is a term used by the General Medical Council (GMC) in reference to the recent changes in its statutes and responsibilities.

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Glossary

A fibres Nerve fibres in peripheral nerves, carrying information other than pain, from their origin in the mechanoreceptor end-organs to the dorsal horn of the spinal cord. Also called mechanoreceptor fibres.

Annulus fibrosus The tough ring of solid but flexible fibrous tissue surrounding the nucleus pulposus. (*See* intervertebral disc and nucleus pulposus.)

Apophyseal joints *See* posterior vertebral joints.

Atheroma Narrowing of an artery by the deposition of plaques of solid material, largely based on cholesterol. The greater the narrowing, the less the blood flow. There is a possibility of the artery becoming totally blocked, which may be life threatening.

Biomechanics The three-dimensional, mathematical study of movement in humans or other animals.

Bony secondaries Secondary cancerous deposits in bone, derived from primary cancers elsewhere. Apart from causing pain, they may seriously weaken bony structure.

C fibres Relatively small diameter nerve fibres in the same peripheral nerves mentioned under A fibres, carrying pain impulses from their origins in nociceptive end-organs to the basal nuclei of the spinal cord. Pain is felt if the basal nucleus permits onward transmission to the brain. This may be prevented by the simultaneous stimulation of A fibres at the appropriate basal nucleus. Also called nociceptor fibres.

Chiropractic A system of vertebral manipulation based on the belief that many diseases arise from vertebrae or other bones having become displaced. Chiropractic manipulation is specifically intended to replace bones in their proper places.

Cholesterol A normal constituent of blood, derived from saturated fatty acids, such as butter. If raised above the normal level, it increases the risk of deposition of atheromatous plaques. (*See* atheroma.)

Circle of Willis An anatomical arrangement of arteries that permits transfer of blood from one side of the brain to the other. (See vertebral artery occlusion.)

Clinical Standards Advisory Group A government-sponsored body that in 1994 made a very important report on the management of back pain.

Cranial osteopathy An offshoot of osteopathy aimed at moving the individual bones of the skull. From childhood, when the bones of the head have stopped growing, these bones are firmly fixed together by bony growth across the sutures, so it is difficult to see how any such movement may be other than imaginary.

Dorsal horn The area on each side and at every segmental level of the spinal cord where both mechanoreceptor and nociceptor fibres terminate, and from which other nerve fibres conduct information to various parts of the brain.

Empirical/empiricism Experimental/experimentation. A treatment is empirical when there is no clear evidence as to whether it will work or not.

Epidemiology The study of the natural history of a pathological condition. Who is at risk of getting it? What factors increase or decrease this risk? How is it likely to affect the patient? It is an essential element in planning sensible management.

Facet joints See posterior vertebral joints.

Grisel's syndrome A condition first described by P. Grisel, in which a child with a sore throat, and for some weeks after recovery from it, may have weakening of the ligaments, which should hold the odontoid process in place. (See odontoid process.)

HLA B27 A clearly identified genetic factor associated with rheumatoid arthritis.

Intervertebral disc The partially solid, partially semifluid structure between two adjacent vertebral bodies, which are of unyielding bone, protected by a thin plate of cartilage. (See annulus fibrosus and nucleus pulposus.) For any movement to

be possible, the bony parts have to tilt, twist, or slide, or a combination of all three, which means that the nucleus and the annulus are distorted.

Intervertebral joints The complex of joints, most often three, between adjacent pairs of vertebrae.

Kellgren's "football jersey" The somewhat crude diagrammatic outline of the surface of the body largely supplied by each segmental nerve. Originally drawn by J.H. Kellgren, he later recognized that this was no more than a rough guide, due to the high degree of overlap in the nerve supply.

McGill Pain Questionnaire A detailed questionnaire developed for assessing as accurately as possible the degree of pain suffered by the patient.

Mechanoreceptors *See* A fibres.

Mobile segment Originally described by H. Junghanns, this comprises two neighbouring vertebrae and all the structures keeping them apart, holding them together, and moving one in relation to its neighbour. Of course, no mobile segment ever moves alone, spinal movement invariably being spread over several segmental levels.

Muscle substitution The phenomenon whereby, in the event of the nerve supply to part of a muscle being damaged (so putting this part out of action), other bundles of muscle fibres, previously at rest, are automatically brought into play. This makes clinical assessment of individual muscle strength extremely difficult.

Neuromuscular system The system whereby muscle function, which means either its contraction or its relaxation, is governed by a specific part of the nervous system.

Nociceptors *See* C fibres.

Nucleus pulposus The inner part of the intervertebral disc. Its importance lies in the fact that, as a semifluid, it cannot be compressed, although it is readily distorted. Its distortion, necessarily coupled with changes in shape and tension in the annulus fibrosus and its supporting ligaments, permits limited movement of the intervertebral joints. When the annulus fibrosus is not ade-

quately contained by its supporting ligaments it will bulge, and the bulge may then press on a nerve root or on the spinal cord. Slight bulging is an essential part of movement, but too great a bulge is known as disc protrusion. If the bulge proceeds to a tear, then rupture of the disc permits irreversible escape of part of the nucleus into the spinal canal.

Odontoid process The part of the second cervical vertebra that protrudes into the ring of the first cervical vertebra (close to the front), where most of neck rotation takes place. (*See* Grisel's syndrome and rheumatoid arthritis.)

Osteopathy A system of vertebral manipulation based on the belief that many clinical conditions arise from abnormalities of joint movement, mainly of the spine. Osteopathic manipulation is specifically intended to restore normal joint movement.

Osteoporosis Structural weakening of bone by demineralization. Commonest in older people, it is related to inadequate calcium intake. Gross osteoporosis may lead to bony fracture as a result of quite minor injury.

Pain modulation The whole complex of alterations in the nervous system that permits, modifies, or prevents the registration of pain in the brain, or the enhancement of the descending inhibitory pathways of the peripheral nervous system.

Paraesthesia The pins-and-needles sensation.

Peripheral joints Joints of the arms and legs.

Pith (verb) Cause gross damage to the spinal cord in the cervical region.

Posterior vertebral joints The pairs of joints, sometimes called apophyseal joints, zygoapophyseal joints, or facet joints, behind the vertebral body, between the vertebral arches. (*See* vertebral arch and vertebral body.) Their capsules and supporting ligaments must also be stretched to permit vertebral movement.

Psychosomatic A symptom derived from both the body and the mind, commonly used in describing pain. Sometimes used in a derogatory manner, but this is ridiculous, as all pain has a

beginning in some part of the body, which is modulated in the spinal cord before being recorded in the brain.

“Red flags” A term used in the CSAG report on back pain to warn the clinician of potential dangers in vertebral manipulation. Applicable to Grisel’s syndrome, rheumatoid arthritis, etc.

Referred pain Pain felt at a distance from its site of origin. Very important in assessing where to apply manipulation or injections.

Referred tenderness Tenderness felt at a distance from its site of origin. Very important in assessing where to apply manipulation or injections.

Rheumatoid arthritis A distinct, inflammatory disease, related closely to HLA B27, and certain chemical changes in the blood. A very definite “red flag” for anyone practicing musculoskeletal medicine.

Sacroiliac joints The pair of joints on either side of the sacrum, attaching the sacrum to the iliac bones. They are the biggest joints in the body, their articular surfaces deeply and irregularly pitted (with prominences to fit the pits) and held together by the strongest ligaments in the body. Contrary to much teaching, the likelihood of damage to these joints is thus remote, and they remain a most unlikely site of origin of pain.

Sacrum The platform on which the whole spine rests, in order to give attachment to the legs (through the bones of the pelvis.)

Saddle anaesthesia Loss of sensation in the skin over the sacrum. Not always volunteered by patients, and so they need to be specifically asked about it. Its presence demands immediate surgical referral, as it may progress to serious and permanent disability.

Segmental level A topographical labeling of the spine, from the first to the seventh cervical vertebrae (C1–C7), through the first to the twelfth thoracic (T1–T12), the first to fifth lumbar (L1–L5), and the first to fifth sacral (S1–S5).

Soma Body, as distinct from mind.

Somatic Pertaining to the soma.

Spinal canal The channel behind the vertebral bodies, contained posteriorly by the vertebral arches.

Spinal cord The extension of the brain occupying the spinal canal for most of its length, from which the segmental nerve roots arise on either side.

Spinal roots The nerve roots arising segmentally from the spinal cord. It is worth noting that there are seven pairs of cervical roots to six cervical vertebrae; this is due to the first cervical roots really being cranial nerves! Below the end of the spinal cord, the spinal nerve roots continue within the spinal canal, emerging serially at the appropriate lumbar and sacral levels.

Spinous processes The parts of the vertebrae projecting posteriorly and, particularly in the thoracic region, downward, for the attachment of various muscles. It is noteworthy that these are very short in the cervical region, rendering them of no diagnostic use, and that it is uncommon for them to project directly in the midline.

Symphysis pubis The joint between the two pubic bones, joining the pelvis in the front.

Vertebral arch The bones projecting from either side of the vertebral body that curve around to meet each other in the midline, enclosing the spinal canal and forming the base for the spinous processes.

Vertebral artery occlusion Occurs either as a result of gross atheroma or by twisting the neck into a very uncomfortable position and holding this position for some time. This movement may matter, or it may not, depending on the state of the other vertebral artery and the circle of Willis working well.

Vertebral body The solid part of the vertebra, at the front, which gives greatest strength to the spine.

Zygoapophyseal joints *See* posterior vertebral joints.

Index

Page numbers followed by f indicate figures.

A

- A fibres, 11
- Adrenaline, 81, 84
- Anaesthesia
 - adverse reactions to, 81
 - general, 47, 53, 66
 - local, 45, 66, 81–82, 84
 - saddle, 33, 69, 73–74, 81
- Analgesics, 48
- Annulus fibrosus, 13, 75–76
- Anterior capsulitis, 61
- Apical ligament, 16f
- Arteries
 - occlusion of, 41–42
 - vertebral, 15, 17f, 41–42, 49
- Atheroma, 41–42, 49

B

- Back pain
 - and body posture, 18
 - conventional treatment for, 29
 - diagnosis of, 12, 46
 - epidemiology and mechanisms of, 10
 - genetic factors in, 41
 - and heavy work, 41, 55–56
 - societal costs of, 28, 35
 - See also specific areas of spine*
- Bones. *See specific bones*
- Bonesetters, 30–32, 83
- Breasts, 64

- British Association of Manual Medicine (BAMM), 88
- British Institute of Musculoskeletal Medicine (BIMM)
 - changes in, 94
 - courses sponsored by, 40
 - membership of, 2–4
 - statutes and history of, 88–91
- British Medical Association (BMA), 88–89

C

- C fibres, 11
- Cancer, bone, 43, 63
- Carpal tunnel syndrome, 61
- Caudal epidural injections, 45, 81–82, 84
- Cervical collars, 58–59
- Cervical vertebrae
 - cervical ribs, 42
 - contraindications to manipulation, 15, 48–54
 - headaches arising from, 48
 - injections around, 52
 - manipulation of, 15, 49–53
 - odontoid process of first vertebra, 15, 16f
 - and vertebral arteries, 41–42, 49
- Chest pain, 63–66
 - differential diagnosis of, 63–64
 - history-taking in, 64–65
 - vertebral manipulation for, 66

- Chiropractic/chiropractors
 fees of, 31
 history of, 30, 87
 practices of, 34, 54, 84–85
 terminology of, 29
- Clinical Standards Advisory Group (CSAG)
 on contraindications, 43
 on need for x-rays, 17
- Clinical trials, 46
- Coccyx/coccydynia, 74
- Coronary artery disease, 63
- Costs/cost efficiency
 of misdiagnosis, 36
 to National Health Service (NHS), 36–38
 to patients, 85
- D**
- Data recording forms,
 20f–21f, 25f–26f, 33–34
- Dermatomal representation,
 10–11
- Diagnostic techniques, 19,
 21–24, 43
- Doctors/physicians
 costs to/cost efficiency for,
 37
 education/training for, 32,
 35, 38, 90–92
 honesty with patients, 34
 treatment options of, 34–35,
 53, 66
 views of musculoskeletal
 medicine, 32–35, 90
- Documentation
 data recording forms,
 20f–21f, 25f–26f, 33–34
 of presenting findings,
 18–21, 25–27, 43, 57
 professional papers
 published, 88–89
- Dorsal horn, 12f, 13f
- Drugs
 adrenaline, 81, 84
 adverse reactions to, 81
 analgesics, 48
 nonsteroidal anti-inflammatory drugs
 (NSAIDs), 60
 steroids, 60–61, 66
- E**
- Ear, nose, and throat (ENT),
 49
- ECG (electrocardiography),
 63
- Education/training in
 of general practitioners,
 90–92
 for musculoskeletal
 medicine, 6, 38
 for vertebral manipulation,
 45–46, 57
- Elbow, 60–62
- Electrocardiography (ECG),
 63
- Equipment
 of dubious efficacy, 36
 heel lifts, 81
 traction apparatus, 57–58,
 59f, 69–71, 81
- ESR (erythrocyte
 sedimentation rate), 60, 65
- European–American Academy
 of Osteopathy, 94
- Examination, physical
 asymmetrical signs on, 33
 documentation of, 18–21,
 25–27
 orthopaedic and neurologic,
 43
- F**
- Facet joints (posterior
 vertebral)
 anatomy of, 23f

movement of, 14
 tenderness in, 43, 74
 Fédération Internationale de
 Médecine Manuelle
 (FIMM)
 changes in, 94
 membership of, 2–4
 statutes and history of,
 88–91
 Fractures, 43, 60
 France, 40
 Frontal sinusitis, 48, 50

G
 General practitioners
 education/training for,
 90–92
 presenting findings of,
 18–21, 25–27, 43,
 57
 Glossary of terms, 101–106
 Golfer's elbow, 61
 Grisel's syndrome, 42–43,
 52–53

H
 Head harness, 57–58, 59f,
 69–71
 Headache and migraine,
 48–54
 and asymmetrical physical
 signs, 51–54
 epidemiology and
 symptoms of, 48–50
 unilateral, 48
 vertebral manipulation for,
 48, 51–53
 Heel lifts, 81
 Herpes zoster, 63
 Hippocrates, 2, 32, 86
 History-taking, 19, 32–33, 50,
 64–65
 Human leukocyte antigen
 (HLA) B27, 41

I
 Ilium, 23f, 73, 74
 India, 83
 Inguinal fossa, 68
 Injections
 caudal epidural, 45, 81–82,
 84
 cervical, 52
 for leg pain, 81–82
 peripheral nerve blocks,
 45
 safeguards for, 84
 of steroids, 60–61, 66
 techniques for, 66
 of trigger points, 45, 66,
 81
 Interspinous ligament, 14f
 Intervertebral discs
 excess pressure on, 75–76
 function of, 12–13
 prolapse of, 64
 protrusion of, 14, 67, 87

J
 Joints
 elbow, 60–62
 facet joints (posterior
 vertebral), 14, 23f, 43
 sacroiliac, 42–43, 67, 73
 symphysis pubis, 42–43,
 72

K
 Kidneys, 67

L
 Labour and delivery, 72,
 74
 Lateral index of sacral tilt
 (LIST), 77–81
 Leg length, 76–81
 lateral index of sacral tilt
 (LIST) for, 77–81
 x-rays for, 77–79

- Leg pain, 75–82
 anterior, 75
 etiology of, 75–76
 injections for, 81–82
 and leg length, 76–81
- Ligaments, 14f–16f
 apical, 16f
 longitudinal, 14–16
 pelvic, 42, 73
 strain of, 60–61
 transverse, 16f, 52
 weakening of, 42
- Ligamentum flavum, 14f
- LIST (lateral index of sacral tilt), 77–81
- Longitudinal ligament, 14f
- Lower trunk pain, 67–71
 history-taking for, 68–69
 prevalence of, 67
 systemic causes of, 67–68
 traction for, 69–71
- Lumbago. *See* Lower trunk pain
- Lumbar spine. *See*
 Thoracolumbar spine
- M**
- Mammals, 12
- McGill Pain Questionnaire, 11
- Mechanoreceptors, 11
- Micturition, 69, 73–74, 81
- Mobile segments, spinal, 14–15
- Muscles
 guarding, 19, 51
 substitution phenomenon in, 15
 tone of paravertebral, 43, 51, 69, 74
- Musculoskeletal medicine
 advantages of, 3, 7, 91–92
 controversy over, 1–4, 9–10, 89–90
 description of, 1–8
 disorders of. *See specific disorders*
 doctor's view of, 32–35
 economics of, 36–39
 education/training for, 6, 32, 35, 38, 40–47, 90–92
 efficacy of, 30, 83–85
 facilities for, 40
 future of, 5–6, 86–92
 history of, 4–5, 86–89
 manipulative techniques in. *See* Vertebral manipulation
 patient's view of, 28–31
 in primary care, 5, 7, 38–39, 91–92
 professional papers on, 88–89
 prognosis in, 84–85
 recognition of, 94–95
 scientific bases of, 9–27
- Myeloma, 67–68
- Myelopathies, 53, 66
- N**
- National Health Service (NHS)
 costs to/cost efficiency for, 36–38
 health care under, 30
 management of, 37
- Neck pain, 55–59
 chronic, 55
 and posture, 50
 referred, 56
 traction for, 57–59
- Nerves
 compression of, 87
 entrapment of, 68
 fibres of, 10–11, 56
 sciatic, 67, 75
 spinal, 10–11
- Neural pathways, 11, 12f–13f

Nonsteroidal anti-inflammatory drugs (NSAIDs), 60
Nucleus pulposus, 13, 75

O

Odontoid process, 15, 16f, 42, 52
Osteopathy/osteopaths
 fees of, 31
 history of, 2, 30, 86–87, 94
 manipulative techniques used in, 44
 terminology of, 29
Osteoporosis, 43

P

Pain
 acute and chronic, 11–13, 55
 epidemiology and mechanisms of, 6–7, 40–41
 headache and migraine, 48–54
 mimicking patterns of, 10
 perception of, 41, 56
 psychology of, 11, 53
 radiating, 68
 referred, 10, 33, 56, 73
 terminology of, 7
 with vertebral manipulation, 53, 69, 74
 of vertebral origin (PVO), 40–41, 48, 65
 See also specific body area
Pain of vertebral origin (PVO), 40–41, 48, 65
Palmer, Daniel David, 30, 87
Paravertebral ligaments, 14–16
Patients
 costs to/cost efficiency for, 37, 39, 85

 positioning for manipulation, 44–45
 views of musculoskeletal medicine, 28–31
 wants and needs of, 28–29, 84, 93
Pelvic ligaments, 42, 73
Pelvic pain, 72–74
 etiology of, 72–73
 history-taking for, 73–74
 vertebral manipulation for, 74
Pelvis, 77, 78f–80f
Pericarditis, 63
Peripheral nerve blocks, 45
Physical signs
 asymmetry of, 51–52, 54, 62, 69
 examinations for, 22f–24f
Placebo, 46
Pleurisy, 63
Polymyalgia rheumatica, 60, 65, 67, 73
Posture
 and back pain, 18
 and chest pain, 64
 and neck pain, 50
 at work, 55–56
Primary care
 musculoskeletal medicine in, 5, 7, 38–39, 91–92
 presenting symptoms in, 90
Private Patients Plan, 5
Psychological factors, 11, 53
PVO (pain of vertebral origin), 40–41, 48, 65

R
Radiography. *See* X-rays/radiography
Range of motion (ROM), 50, 56
Resuscitation, 81, 84

- Rheumatoid arthritis (RA)
 as a contraindication, 42–43, 66
 as differential diagnosis, 67, 73
 “rheumatoid neck,” 52
 treatment for, 60
- Ribs, 42, 65
- Royal College of General Practitioners (RCGP), 92
- Royal Society of Medicine (RSM), 2
- S**
- Sacral thrust, 24f, 74
- Sacroiliac joint, 42–43, 67, 73
- Sacrum
 anatomy of, 73
 lateral index of sacral tilt (LIST) for, 77–81
 sacral thrust, 24f, 74
- Saddle anaesthesia, 33, 69, 73–74, 81
- Scar tissue, 82
- Scheuermann’s disease, 68, 73
- Schmorl’s nodes, 68
- Sciatic nerve, 67, 75
- Segmental sagittal pressure, 43, 52, 69, 74
- Shoulder and arm pain, 60–62
 differential diagnosis of, 60
 treatment of, 60–61
 vertebral manipulation for, 62
- Sit-ups, 76
- Skin
 dermatomal representation of pain, 10
 pinching of, 19, 22f–23f, 40–41, 43, 51, 69, 74
- Sphincter control, 33
- Spinal stenosis, 67
- Spine/spinal column
 evolution of, 12
 ligaments of, 14f–16f
 mobile segments of, 14–15
 muscles of, 43, 59, 61, 74
 nerves of, 10–11
See also specific spinal regions
- Spinous process pressure (SPP), 19, 22f, 42, 52, 69, 74
- Spinous processes, 42
- Spreader bars, 69–71
- Steroids, 60–61, 66
- Still, Andrew Taylor, 30, 87
- Studies, clinical, 4, 88–89
- Supraspinous ligament, 14f
- Surgery, 68, 82
- Sympathetic nervous system, 11
- Symphysis pubis, 42–43, 72
- T**
- Taxpayers, 36–39
- Tenderness, referred, 10, 33, 56, 73
- Tennis elbow, 61
- Thoracolumbar spine, 68, 72, 74
- Tietze’s syndrome, 63
- Tinnitus, 48–49
- Traction, vertebral, 57–58, 59f, 69–71, 81
- Transverse ligament, 16f, 52
- Trauma
 to head or neck, 48, 55
 to symphysis pubis, 72–73
- Trigger points
 injections of, 45, 66, 81
 pressure on, 51
 searching for, 43, 69, 74
- U**
- United Kingdom
 health care in, 30

musculoskeletal medicine
facilities in, 40
population of, 36
practice in, 93

V**Vertebrae**

asymmetry of, 51–52, 54, 56
cervical. *See* Cervical
vertebrae
thoracolumbar, 62, 68, 72,
74

Vertebral arteries

cervical, 15, 17f, 41–42, 49
course of, 17f

Vertebral manipulation/

therapeutic techniques
advantages of, 3
cervical, 15, 49–53
choices of, 34–35
contraindications to, 3, 15,
33–34, 41–43, 46, 52–53,
69, 83–84
education/training for, 38,
45–46, 57
efficacy of, 46
for headaches, 48, 51–53
history of, 2, 4

justification for, 17–18
pain with, 53, 69, 74
as placebo, 46
sacral thrust, 24f, 73
thoracolumbar, 62, 66, 68,
72, 74
used in everyday practice,
18, 44

Vertigo/dizziness, 49**Vitreous floaters, 50****W****Whiplash injury, 55****Work, 55–56****X****X-rays/radiography**

functional, 17
indications for, 16–17
for leg length test, 77–79

Z**Zygapophyseal joints (Z-**
joints)

anatomy of, 23f
movement of, 14
tenderness on pressure, 43,
74