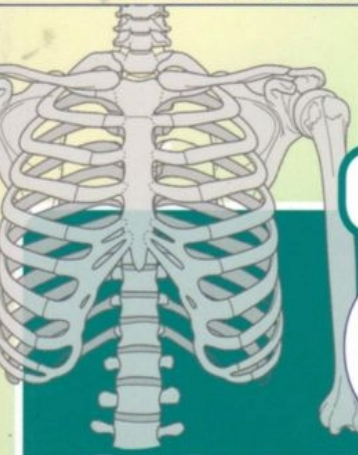
COVERS PERIPHERAL AND VERTEBRAL MANIPULATION



MAITLAND'S Clinical COMPANION

An Essential Guide for Students

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CHURCHILL
LIVINGSTONE
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Chapter 8

How to carry out an ordered, structured and individualized examination of the neuromusculoskeletal system

CHAPTER CONTENTS

LEARNING OBJECTIVE

To carry out ordered and structured examination of patients with neuromusculoskeletal disorders in a way that is flexible and adaptable to the individual patient's needs

(A) EXAMINATION FORMAT AND AIMS

FORMAT OF EXAMINATION

In clinical practice it is useful to have a format to follow, so that the chances of missing vital clinical evidence are reduced. Such a format should enable you to:

- Gather information from and about the patient (subjective examination – C/O) (Maitland et al 2005, Jones et al 2006)

- Translate such information into clinical evidence (planning physical examination and possible treatment)

- Confirm the presence or absence of movement dysfunction through physical examination (P/E) (Hengeveld and Banks 2005)

- Explore responses to movement through differentiation testing and application of potential treatment techniques, even during examination.

- *Possible causes of pain by location (Goodman and Snyder 1995) (Table 8.3)*
- Right upper quadrant of the abdomen (liver, kidney, gallbladder, duodenum, right lower lobe of lung)
- Right lower quadrant (appendix, ascending colon, ovary, fallopian tube)
- Left upper quadrant of the abdomen (pancreas, spleen, kidney, left lower lobe of lung)
- Left lower quadrant of the abdomen (sigmoid and descending colon, ovary, fallopian tubes)
- Midline or periumbilical (early appendicitis, cardiac, pancreatic, lymphatic)
- Flank (aortic aneurysm, renal colic, pyelonephritis)
- Front to back (pancreatitis, ruptured abdominal aortic aneurysm, retrocaecal appendicitis, posterior duodenal ulcer)
- Suprapubic, lower abdominal (ectopic pregnancy, ovarian cyst, pelvic inflammatory disease, endometriosis, urinary tract infection

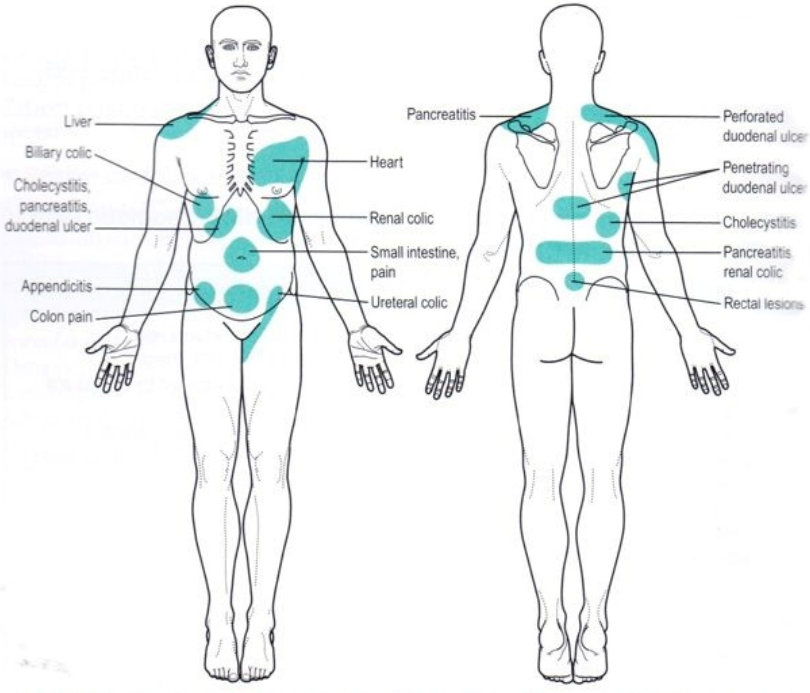


Fig. 8.3 Common sites of referred pain. Reproduced by kind permission from Goodman and Snyder (1995).

LOCALIZATION OF FORCES (FIGS 11.3, 11.4)

Fig. 11.3 Posteroanterior unilateral vertebral pressure

Fig. 11.4 Anteroposterior movement: in abduction.

HOW SHOULD I EXAMINE THE TMJ TO CONFIRM THE PRESENCE OF MOVEMENT DYSFUNCTION ASSOCIATED WITH THE TMJ REGION? (P/E) (TABLE 16.1)

Table 16.1 Physical examination of the temporomandibular joint – general overview

	Must do	Could do
	• Observation • Facial symmetry – any obvious skull or mandibular development abnormalities • Horizontal plane of the eyes, zygomatic arches and mouth • Rest position of the jaw (mouth slightly open) • Resting position of the head on neck, neck on neck, and neck on trunk (alignment, poking chin) • Resting position of the tongue (against the top palate) and hyoid bone (level with C3) • Functional demonstrations • Anterior neck/throat pain with neck extension – differentiate hyoid v. anterior cervical intervertebral structures. (In neck extension, moving the tongue in the mouth will alter the position of the hyoid bone) • Pain in and around the ear with cervical full rotation – differentiate cervical v. TMJ. (Whilst the neck position is maintained in full rotation, laterally deviate the mandible both ways to differentiate) • Brief appraisal and active movements of TMJ (with overpressure) • Opening the mouth as wide as possible and clenching the teeth tightly • Laterally deviate the jaw right and left • Protract and retract the jaw • When applicable, testing/further screening: – screen cervical spine – screen larynx/hyoid bone (cough, swallow, talk)	• Inspection of the tongue (indentations – tongue forward against teeth) • Inspection of the teeth (posterior support, malocclusion, wear pattern) • Shoulder girdle, trunk alignments • Functional stability of cervical spine during mouth opening • Screen thoracic spine and rib cage • Screen shoulder/shoulder girdle
	• Palpation (stand at the head of the bed) • Joint line, mandible • Passive movements • TMJ depression elevation • Protraction/retraction • Lateral deviation, right and left • Lateral transverse movement • Longitudinal caudad movement (with physiological movements) • Hyoid/thyroid cartilage transverse/rotary mobility • Upper cervical PPIVMs	• Extraoral muscle palpation for tenderness (masseter, temporalis) • Cranial suture stress testing • Screen shoulder quadrant muscle length (scaleni, trapezius, sternomastoid) • Cervical anteroposterior movements

Continued

Fig. 17.42 Scapulothoracic movement: retraction.

Fig. 17.43 Scapulothoracic movement: elevation.

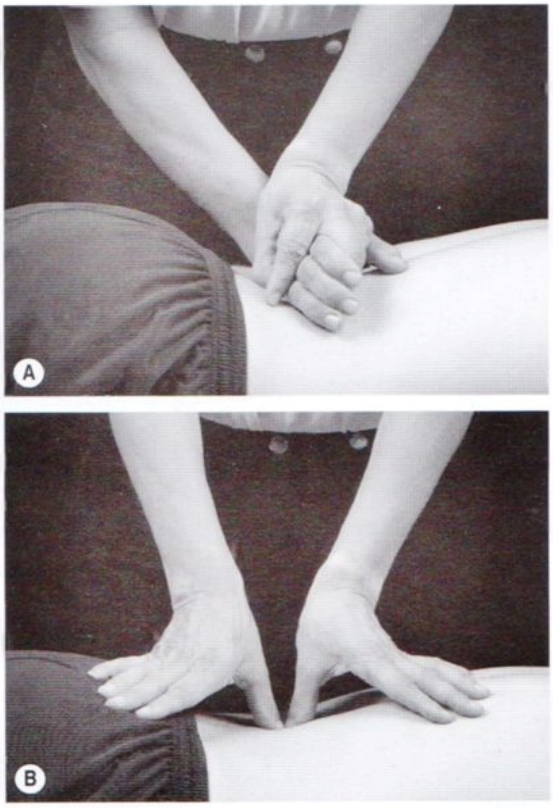


Fig. 21.34 Posteroanterior vertebral movement (↓).

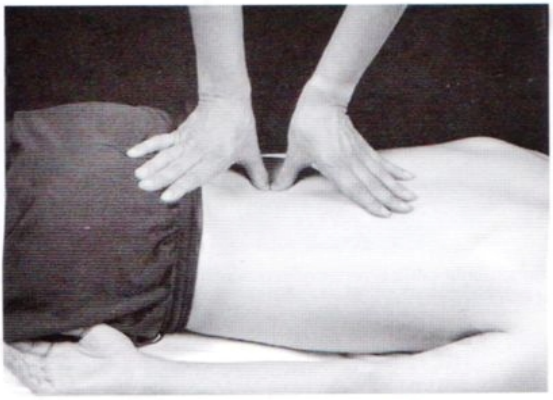


Fig. 21.35 Posteroanterior unilateral vertebral movement (↓).

Appendix 1

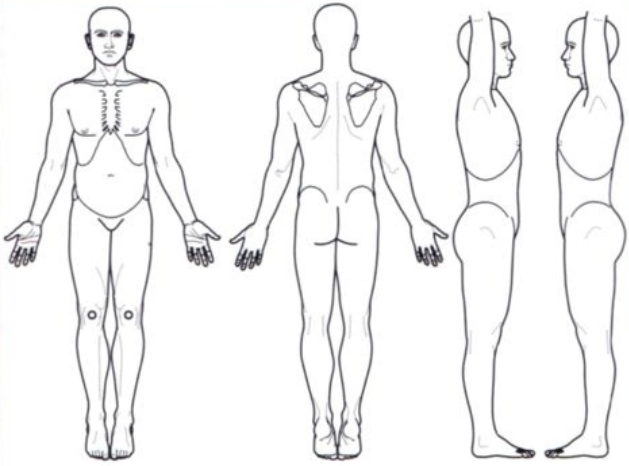
Example of electronic recording template

Name:	Date of birth:
Profession:	Hobbies/other activities
Doctor:	
Diagnosis:	
Date of PT exam:	Time:

Main Problem:

Objectives of patient (summary)

Body chart



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④ **Type:** **I/C/C var.** **S/D**

⑤ **Type:** **I/C/C var.** **S/D**

Relationship symptom areas:

Screening CNS:

- **B & B:**
- **C & Sn:**
- **P & N:**
- **Headache:**
- **Dizziness (5× D):**
- **Gait:**

Diff. diagnosis:

- gastrointestinal
- cardiovascular
- genitourinary
- metabolic
- vascular
- skin
- mental health

MAITLAND'S

Clinical COMPANION

Maitland's Clinical Companion is the ideal reference for students who need support during their neuromusculoskeletal clinical practice in areas such as communication, clinical reasoning, examination and assessment. It is a vital source for understanding the role of mobilization and manipulation in helping to maximize the recovery, rehabilitation and functioning of patients with movement-related disorders.

The principles of the Maitland Concept of Manipulative Physiotherapy are applied to each body region so as to guide the student through to the appropriate selection, application and progression of mobilization and manipulation techniques within the context of contemporary physiotherapeutic rehabilitation.

FEATURES

- Learning objectives and self-assessment questions in every chapter enable students to reflect on their knowledge
- Case studies highlight key aspects of the concepts to clinical practice
- Clinical profiles for common neuromusculoskeletal conditions
- Techniques described and accompanied by over 500 images
- Picture key to identify types of examination, decision-making and techniques within the text

A vital companion to the classic texts – *Maitland's Vertebral Manipulation* and *Maitland's Peripheral Manipulation* – which promotes a patient-centred approach to neuromusculoskeletal disorders.

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