Maitland

Introduction to the Maitland

A tribute to Geoffrey Douglas Maitland

MBE, AUA, FCSP, FACP, MAppSc

- **1924 to Fri 20 Feb 2010**

- GD Maitland born in 1924 in **Adelaide, Australia**, was trained as physiotherapist from 1946 to 1949
- First job at **Royal Adelaide Hospital**, (main interest was treatment of orthopedic and neurological conditions)
- Part time tutor at School of physiotherapy in South Australian Institute of Technology, now University of South Australia
- He used to spend half day each week in **barr-smith library** an excellent library at Medical School of the University of the Adelaide

Introduction to the Maitland Cont…

- He became interested in learning clinical examination and assessment
- He has studied the techniques from osteopath, chiropractor, bonesetter books as well as from medical books such as those of Marlin, Joster, James B. Mennell, John Mc Millan Mennell, Alan stoddard, Robert Maignee, Edgar Cyriax, James Cyriax, and many others available
- 1954, He started teaching manipulative therapy sessions
- 1961, He was awarded with special scholarship for overseas study tour, he visited James Cyriax, and Georgy P. Grieve in UK along with others

- 1962, he wrote an article of "**the problems of teaching vertebral manipulation**"
- 1964, first edition of **vertebral manipulation** (Latest 7th Edition 2005)
- 1970, first edition of **peripheral manipulation** (Latest 4th Edition 2005)
- He remained in working practice till 1995
- He died on 20th Feb 2010

Fundamental components of the Maitland's Concept

A. The patient centered approach to dealing with movement disorders
B. The brick wall approach and the primacy of clinical evidence
C. The paradigm of identifying and maximizing movement potential
D. The science and art of assessment

The patient-centred approach to dealing with movement disorders

- developing a level of concentration such that the manipulative physiotherapist feels mentally and physically challenged throughout each episode of care
- being prepared to revisit,
- the patient's sensory, cognitive and emotional world until the information that the patient provides makes sense
- being totally non-judgemental at all times

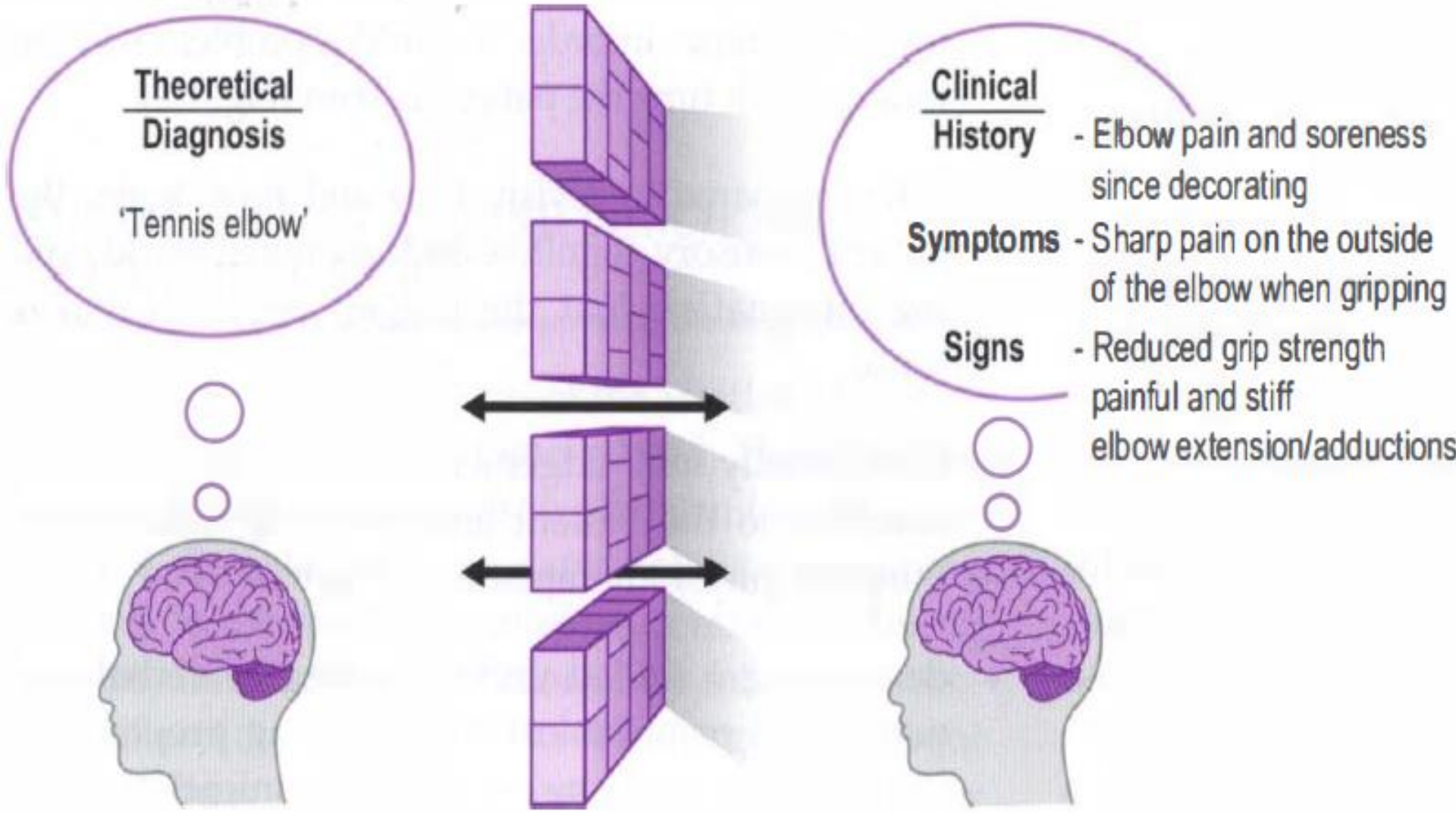
- actively listening to the patient and believing that everything the physiotherapist is told is true
- developing a skilled understanding of verbal and non-verbal communication.
- using the patient's own terminology

(the physiotherapist should adapt to the patient rather than continuously expecting the patient to adapt to the clinician)

- endeavouring to understand the 'frame of reference'

  from which the patient expresses the effects of the disorder
- knowing what the clinician should know
- creating an interpersonal environment in which the patient feels comfortable, confident and trusting in the clinician.

The brick wall approach and the primacy of clinical evidence



- The brick wall approach to clinical decision making applies to all aspects of this manipulative physiotherapy model.
- The manipulative physiotherapist is encouraged to decide which side of the brick wall is being considered during each stage of decision making.
- The decision-making process of the Maitland Concept is primarily on the clinical evidence side of the brick wall although diagnostic/theoretical considerations will influence the exact nature and dosage of the intervention.

- Therefore the primacy of clinical evidence is a major part of the Maitland Concept.
- For example, the prime concern of a patient with a diagnosis of tennis elbow will be that the problem resolves and does not recur
- that the pain being experienced will go away (**symptoms**)
- and that grip strength when lifting things will return to normal (**signs**).

- At the heart of the Maitland Concept is a special mode of thinking in two interdependent compartments separated by a symbolic permeable brick wall, thus allowing for hypotheses and speculations.

- The separation into 'theoretical compartment' and 'clinical compartment‘ in the clinician's mind prevents thoughts relating to the theory of a disorder overriding the clinician's decision-making processes and does not inhibit the clinician from discovering the patient's disorder in terms of its history, its symptoms and its signs in fine detail.
- It also allows for safe and effective management of disorders where there is an incomplete or uncertain diagnosis.

The paradigm of identifying and maximizing movement potential

The **World Congress of Physical Therapy (WCPT 1999**) in an updated description 'recognizes that physiotherapy is concerned with identifying and maximizing movement potential within the spheres of **promotion, prevention, treatment and rehabilitation**'.

- The Maitland Concept, with attention to detail in the analysis of **quantity and quality** of human movement and with **mobilization/manipulation techniques** designed to restore movements to their pain-free ideal state, is well placed to contribute to the realization of such a paradigm.

Examination

In the physical examination, aspects which are emphasized within the Maitland Concept are:

- functional movements which the patient can perform to demonstrate the pain or other symptoms for which treatment is being sought
- re-enacting the injuring movement when the disorder has been caused by some traumas
- differentiation tests
- pain response to accessory movements performed in loose-packed positions and at the end of range of physiological movements

- pain response to 'combined movement' tests
- pain response to the testing of 'functional corners'
- pain response to movement, both physiological and accessory, performed while the joint surfaces are held compressed together
- test movements requiring overpressure to establish normality
- not thinking of range of movement without relating the pain response to it and vice versa
- movement diagrams for the purpose of learning and teaching.

Mobilization / manipulation techniques

- Although it is necessary to have a basic set of techniques from which to teach,
- the clinician must be totally open minded and capable of adapting and modifying techniques to achieve the purposes for which they were chosen in relation to movement and pain.
- For example, a patient may experience pain at the front of the knee when going up stairs.
- A possible treatment technique may be tibiofemoral joint passive accessory movement in the weight-bearing position, thus reproducing the pain, the desired effect being to enable the patient, subsequently, to go up stairs without any symptoms.

- Performing a movement in an oscillatory manner
  - within a range of movement where there is no stiffness, muscle spasm or pain .
- Using compression as a component of a treatment technique.

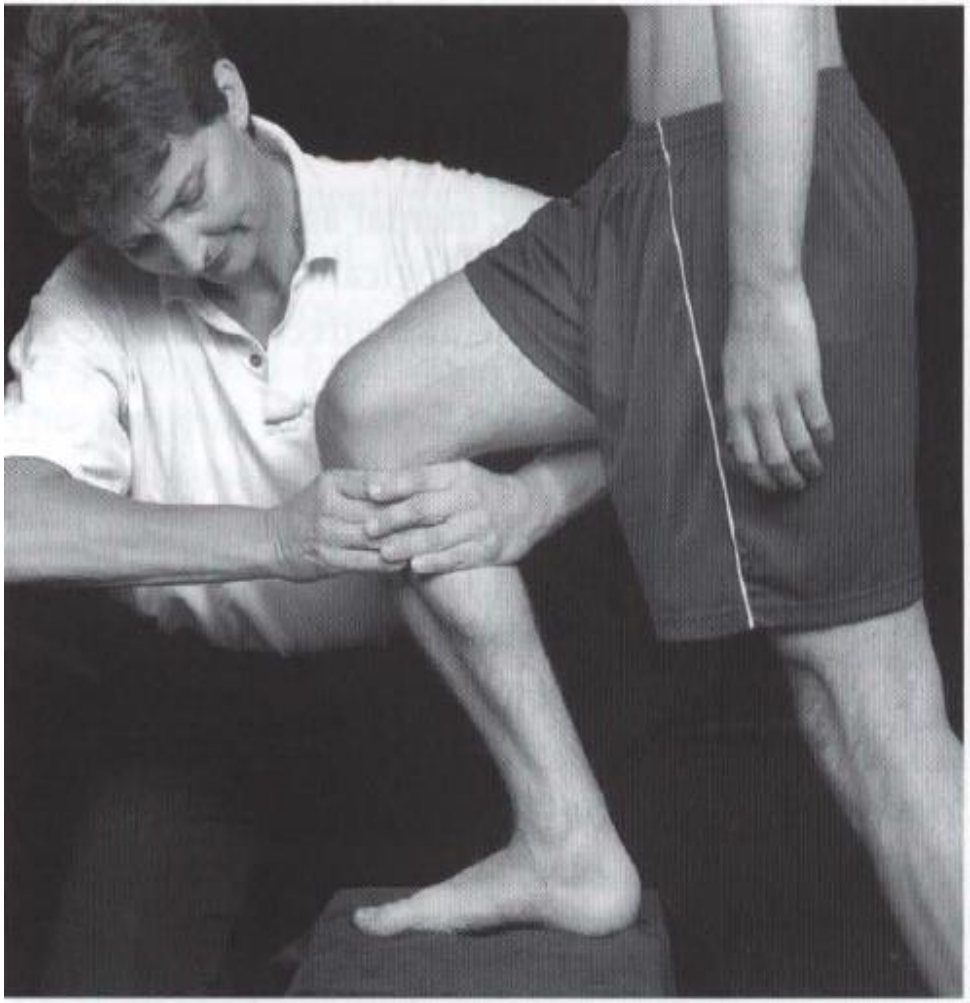


Figure 1.4 Tibiofemoral accessory movement in weight-bearing.

Assessment

- Analytical Assessment at 1st consultation
- Pretreatment Assessment
- Assessment and Reassessment during and immediately after each treatment session
- Progressive assessment
  - 3rd to 4th session
- Retrospective assessment
  - After a planned break from treatment
  - Like 2 weeks on and 2 weeks off
- Final Analytical Assessment

The science and art of assessment

Science of assessment

- ✓ Cause of the problem
- ✓ The structures at fault
- ✓ Pathobiological mechanisms

- ✓ Expectations for recovery
- ✓ appropriate management strategies can be confirmed, discarded or re-ranked
- ✓ Therefore this process of evaluation involves the clinical science of measurable change

Art of Assessment

- ✓ Repeated assessment and ongoing analytical assessment
- ✓ Clinical decision making about treatment strategies
- ✓ selection and application of the techniques

It is open-mindedness, mental agility and mental discipline linked with a logical and methodical process of assessing cause and effect which are the demands of the concept

Grades of Maitland

Grade I: Small-amplitude rhythmic oscillations are performed at the **beginning of the range.**

Grade II: Large-amplitude rhythmic oscillations are performed **within the range**, not reaching the limit.

Grade III: Large-amplitude rhythmic oscillations are performed **up to the limit of the available motion** and are stressed into the tissue resistance.

Grade IV: Small-amplitude rhythmic oscillations are performed ***at the limit of the available motion*** and stressed into the tissue resistance.

Grade V: A small-amplitude, high-velocity thrust technique is performed to snap adhesions **at the limit of the available motion.**

- Thrust techniques used for this purpose require advanced training .

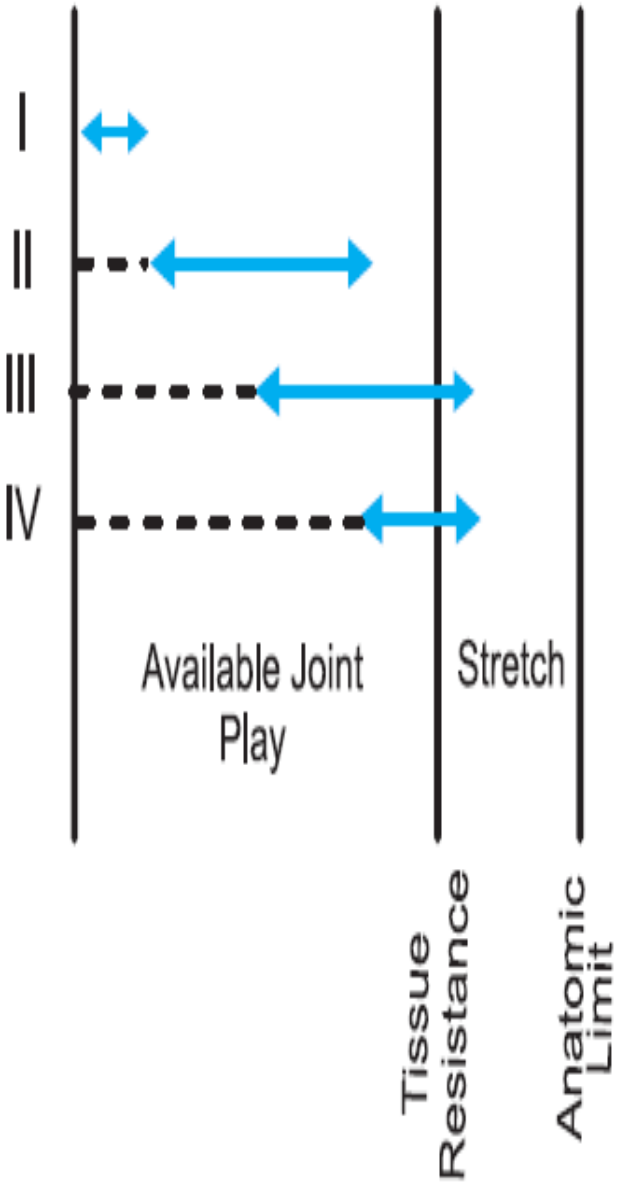


FIGURE 5.9 Representation of graded oscillation techniques. *(Adapted from Maitland.[17])*

Effects of Joint Mobilisation

- Neurophysiological effects –
  - Stimulates mechanoreceptors to ↓ pain
  - Affect muscle spasm & muscle guarding – nociceptive stimulation
  - Increase in awareness of position & motion because of afferent nerve impulses
- Nutritional effects –
  - Distraction or small gliding movements – cause synovial fluid movement
  - Movement can improve nutrient exchange due to joint swelling & immobilization
- Mechanical effects –
  - Improve mobility of hypomobile joints (adhesions & thickened CT from immobilization – loosens)
  - Maintains extensibility & tensile strength of articular tissues

- Cracking noise may sometimes occur

- Paradigm - a model of beliefs based . A standard or typical example
- Frame of reference A system of assumptions and standards that sanction behavior and give it meaning
- Speculation A message expressing an opinion based on incomplete evidence
- on a professional body of knowledge,
- such as the paradigm
- that physiotherapy is a rehabilitation profession with an expertise in disorders of the movement system.