

IFOMPT TEACHERS MEETING 2016 CERVICAL MANIPULATION

Assoc Professor Duncan Reid
Assoc Dean Health AUT



IFOMPT Teachers Meeting, Glasgow – 3 July 2016

INTRODUCTION

- ▶ Things to consider when teaching spinal manual therapy:
 - ▶ Motor Performance
 - ▶ Motor Learning
 - ▶ Motor Control
 - ▶ Cognitive Phase
 - ▶ Associative Phase
 - ▶ Autonomous Phase



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Fitts, P. M., & Posner, M. r. (1977). *Learning and skilled performance in human performance*. Belmont, CA: Brooks/Cole.

Reviews and perspectives

Motor skill acquisition across short and long time scales:
A meta-analysis of neuroimaging data[☆]

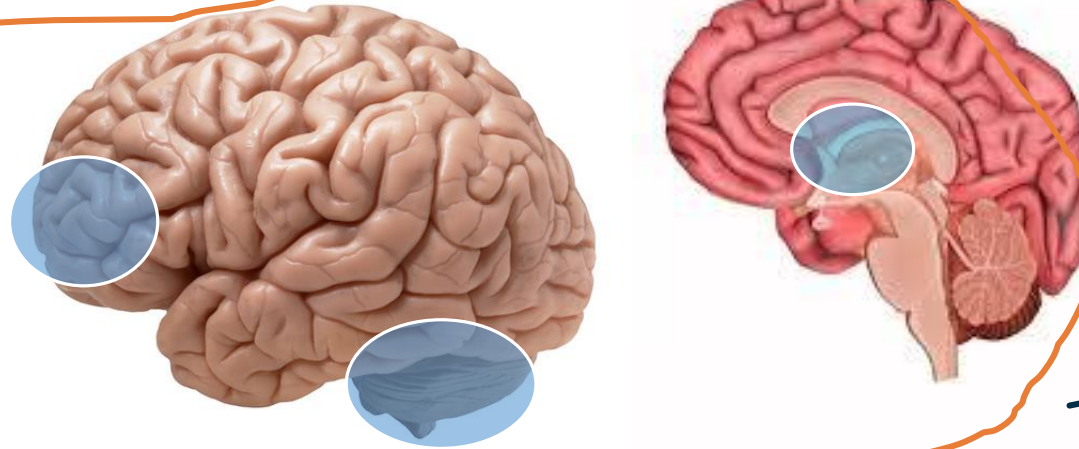
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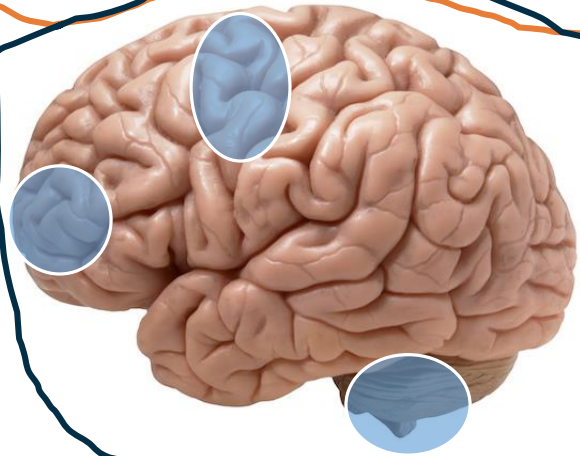
^b Department of Physical Therapy, University of British Columbia, Vancouver, BC, Canada V6T 1Z4



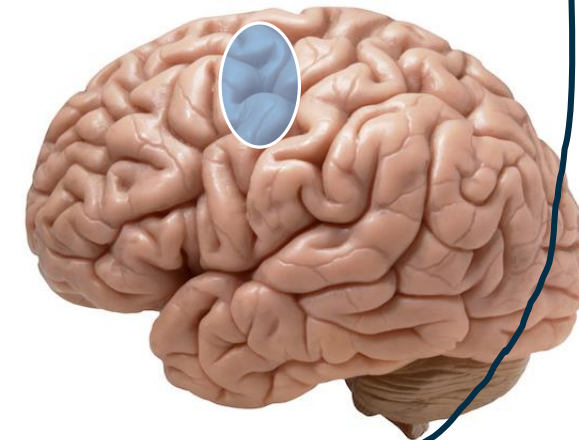
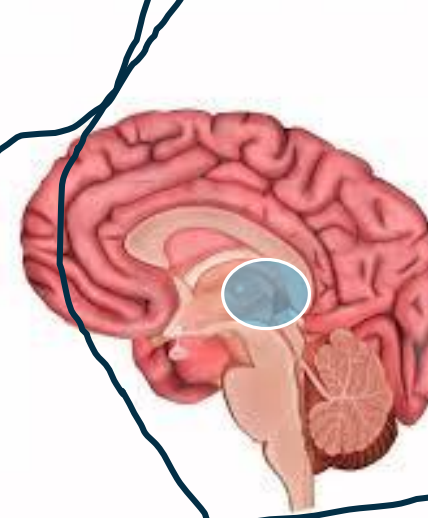
Early learning –
cerebellar cortex +++
premotor cortex ++
rostral-dorsal striatum +



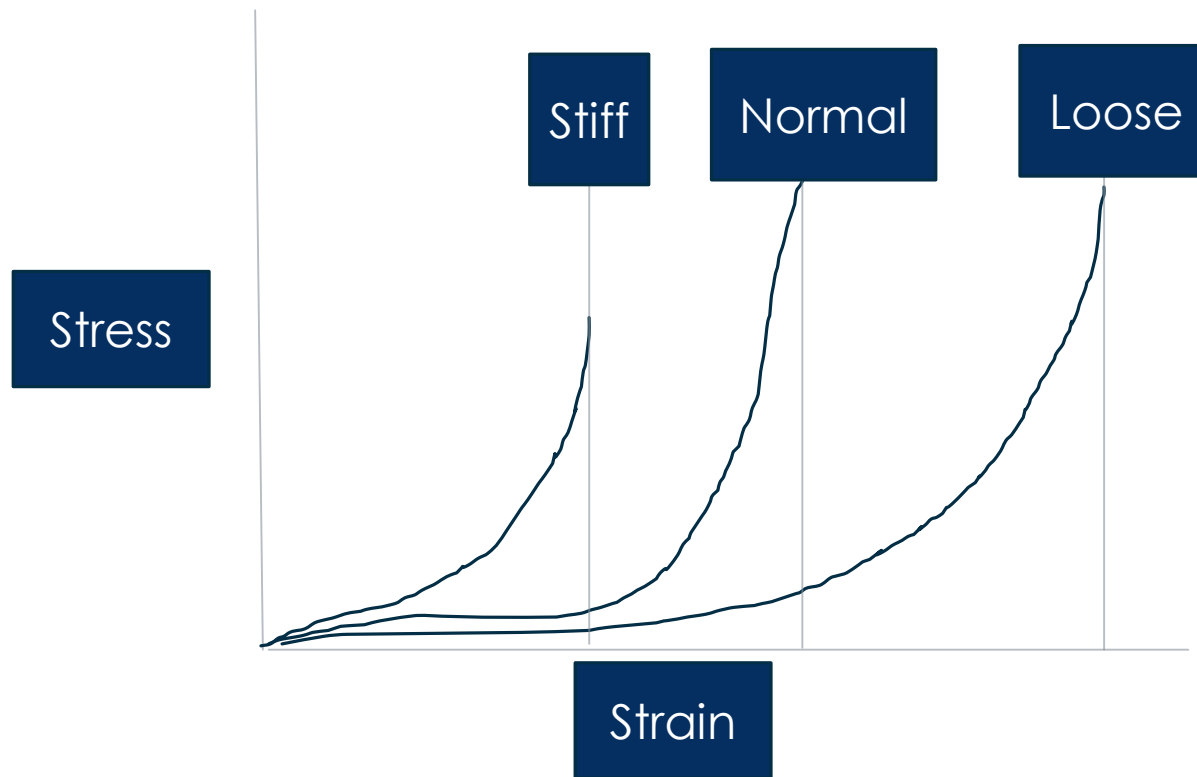
Medium stage learning
cerebellar cortex +
premotor cortex +
Primary motor cortex ++
rostral-dorsal striatum +++



Late stage learning
caudal-ventral striatum +++
primary motor cortex ++?



TREATMENT BARRIER



FEEDBACK TO STUDENTS

Internal focus vs external focus

Internal – push down the line of the facet at 45 degrees

External- feel the joint and the soft tissue engage with your sensing hand

Benjaminse et al Optimization of the Anterior Cruciate Ligament Injury Prevention Paradigm: Novel Feedback Techniques to Enhance Motor Learning and Reduce Injury Risk *J Orthop Sports Phys Ther* 2015;45(3):170-182.Epub 27 Jan 2015. doi:10.2519/jospt.2015.4986



PRACTICAL DEMONSTRATION



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