

Re-Train Your Brain Using Graded Motor Imagery

Mark Butler, PT, DPT, OCS, Cert. MDT



Historical “expert”
rehabilitation
recommendations

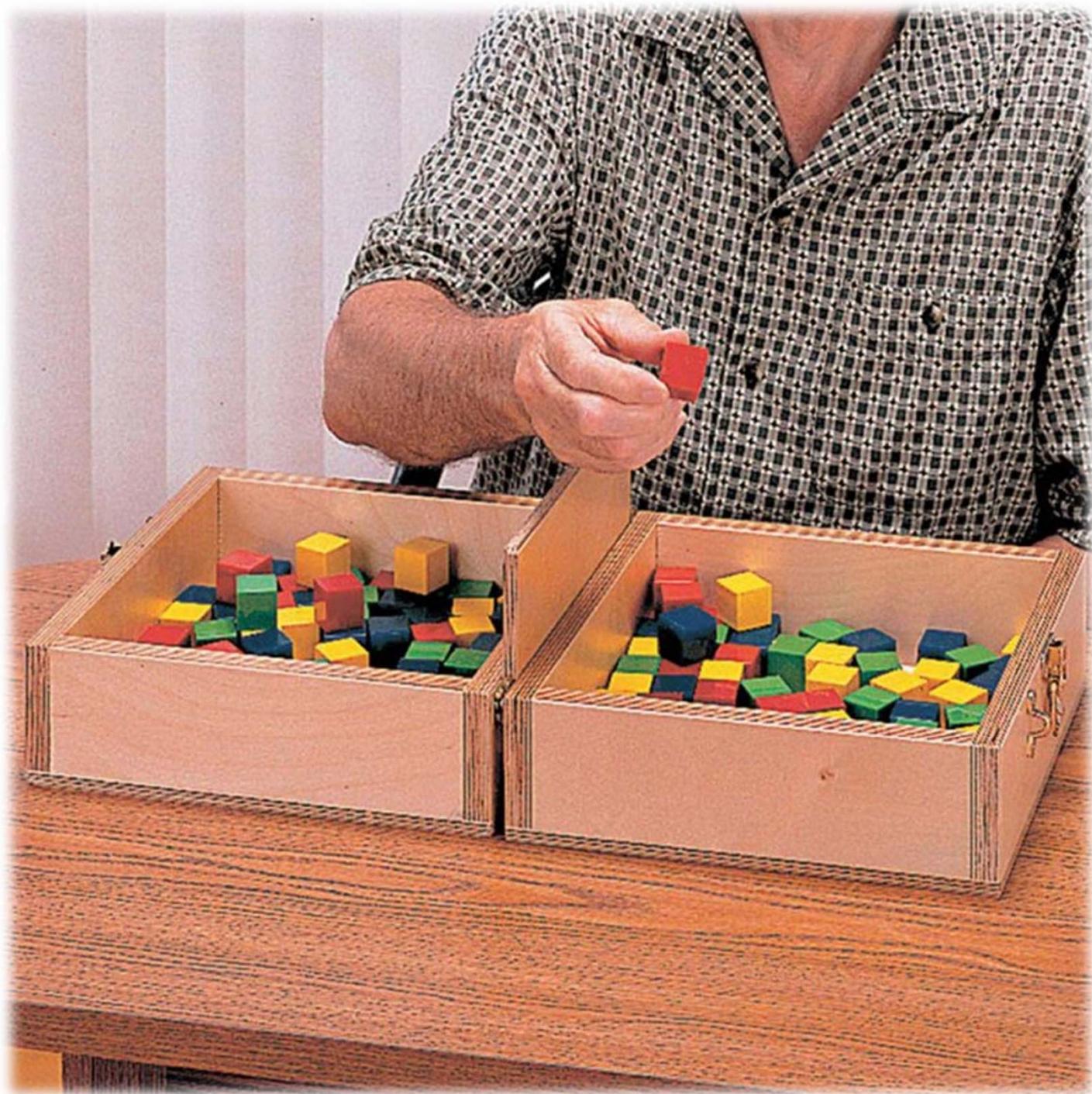




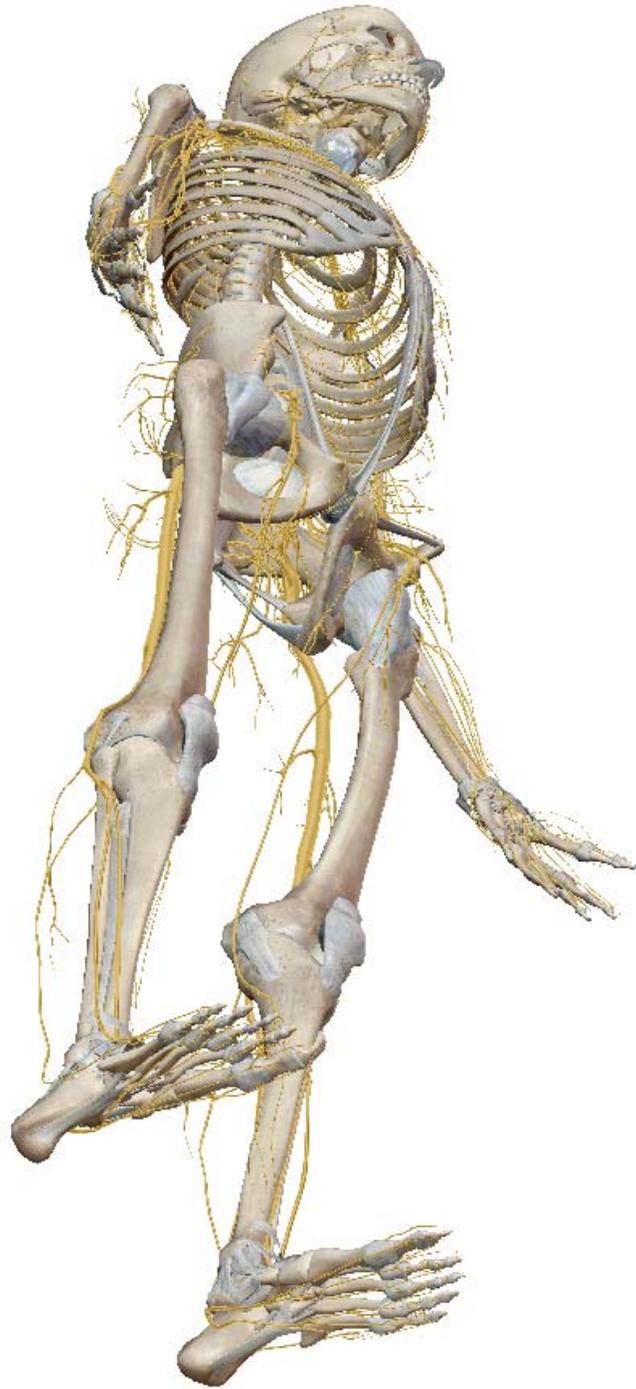
DYSTROPHILE
JOINT JACK CO.
PAT. PENDING

LBS
4
8
12
KG
2
4
6



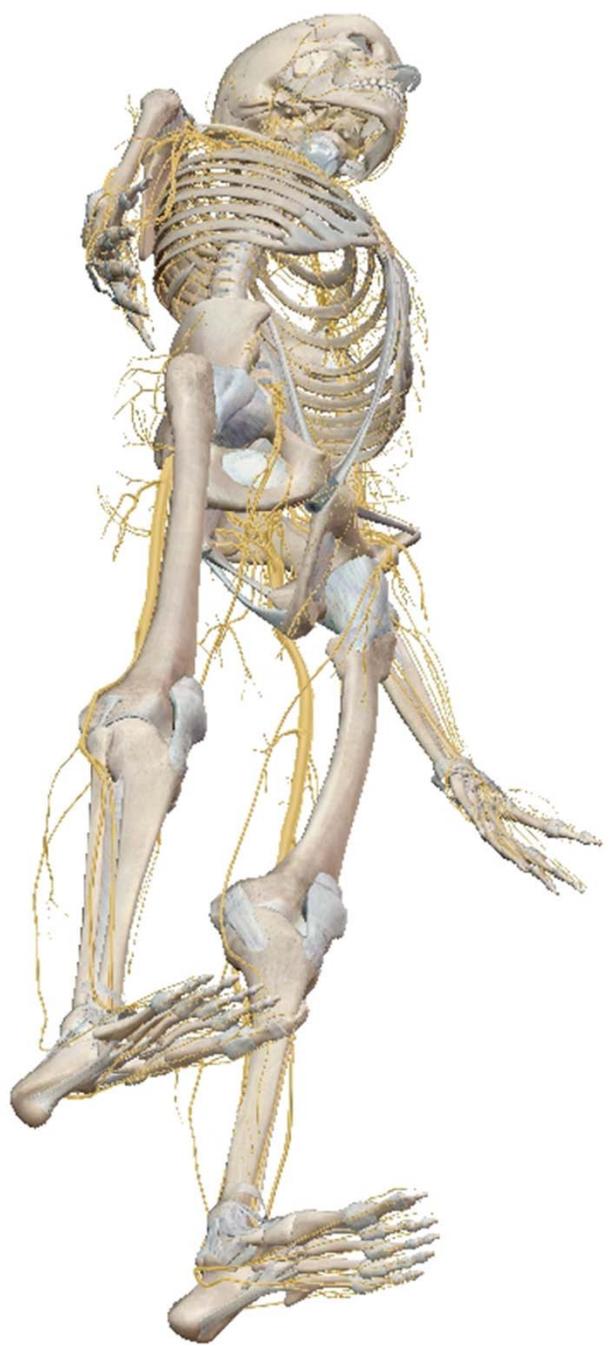


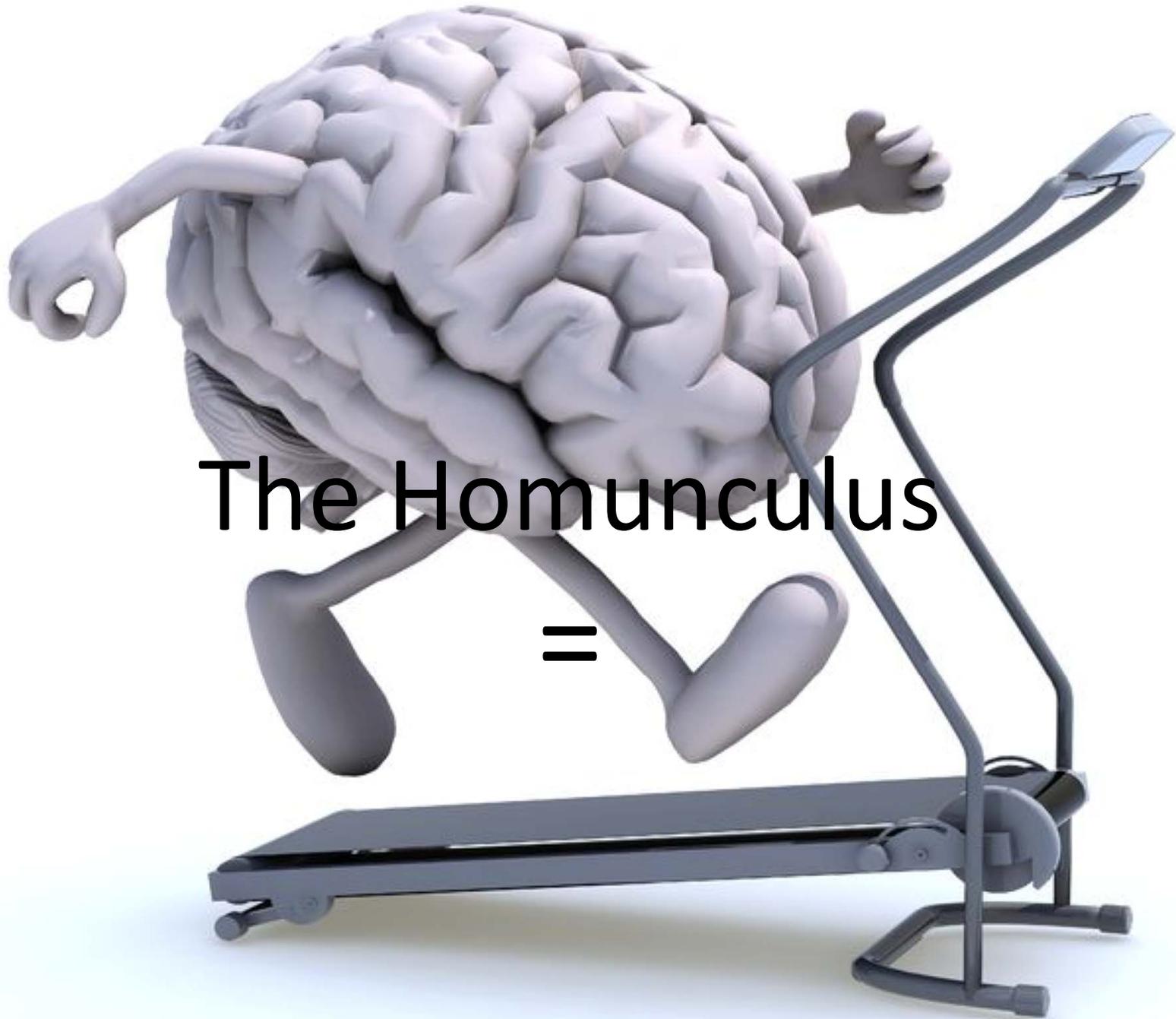




A 3D rendered illustration of a human brain with arms and legs, depicted as if it is running on a treadmill. The brain is the central focus, with its characteristic gyri and sulci clearly visible. It has four limbs, and its body is positioned on a grey treadmill. The background is plain white.

Contemporary
“evidence-based”
rehabilitation
recommendations

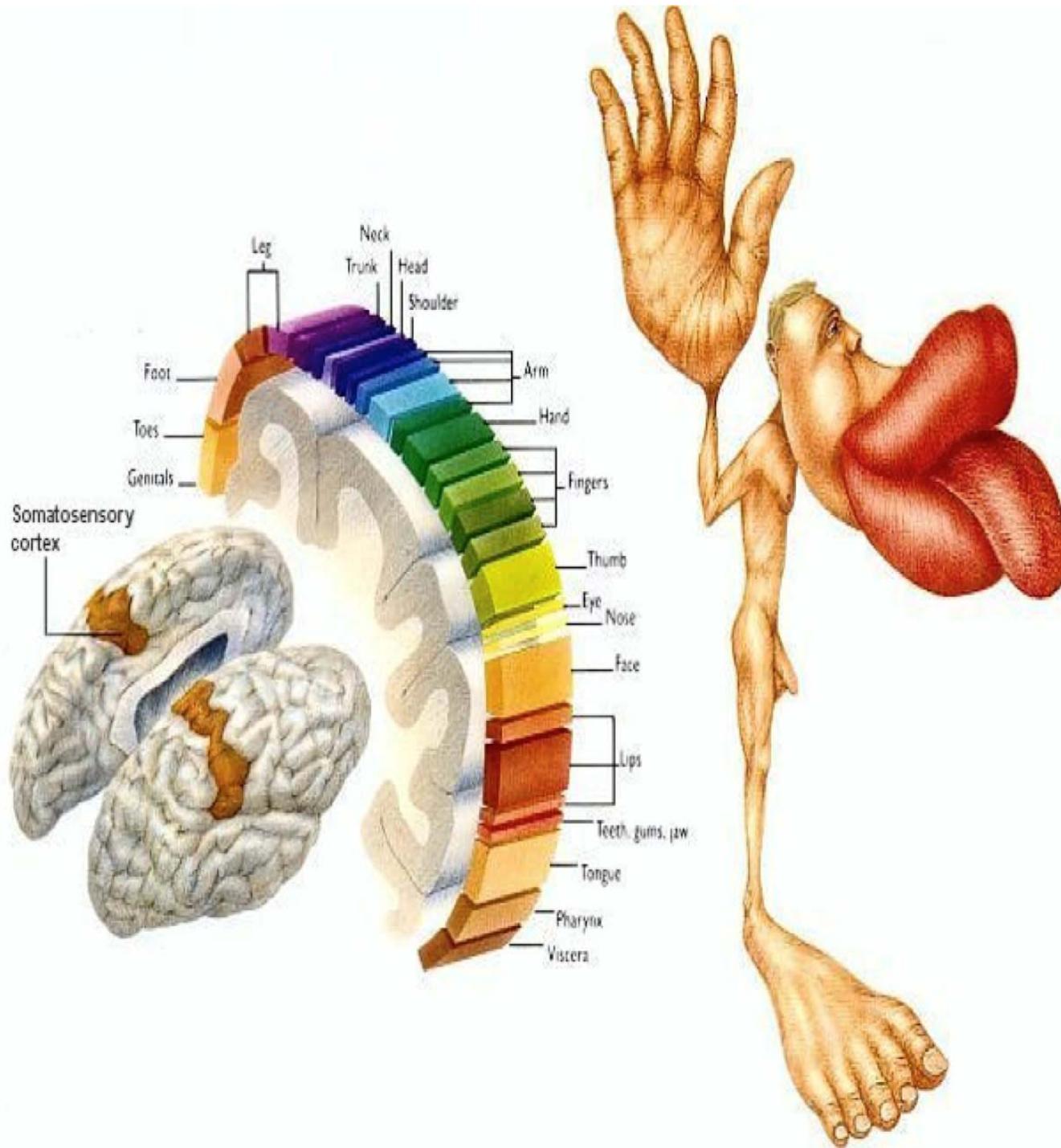


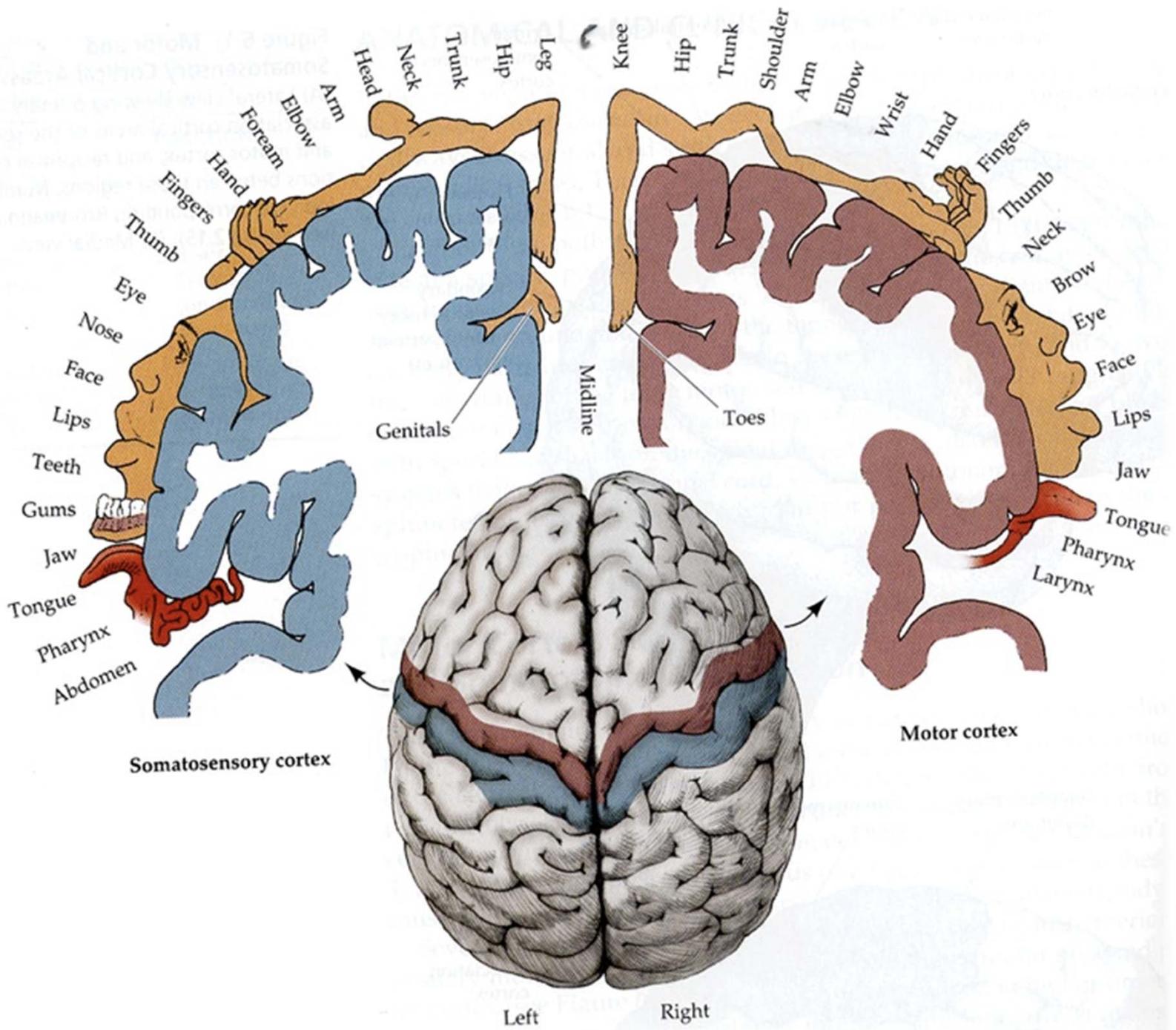


The Homunculus

=





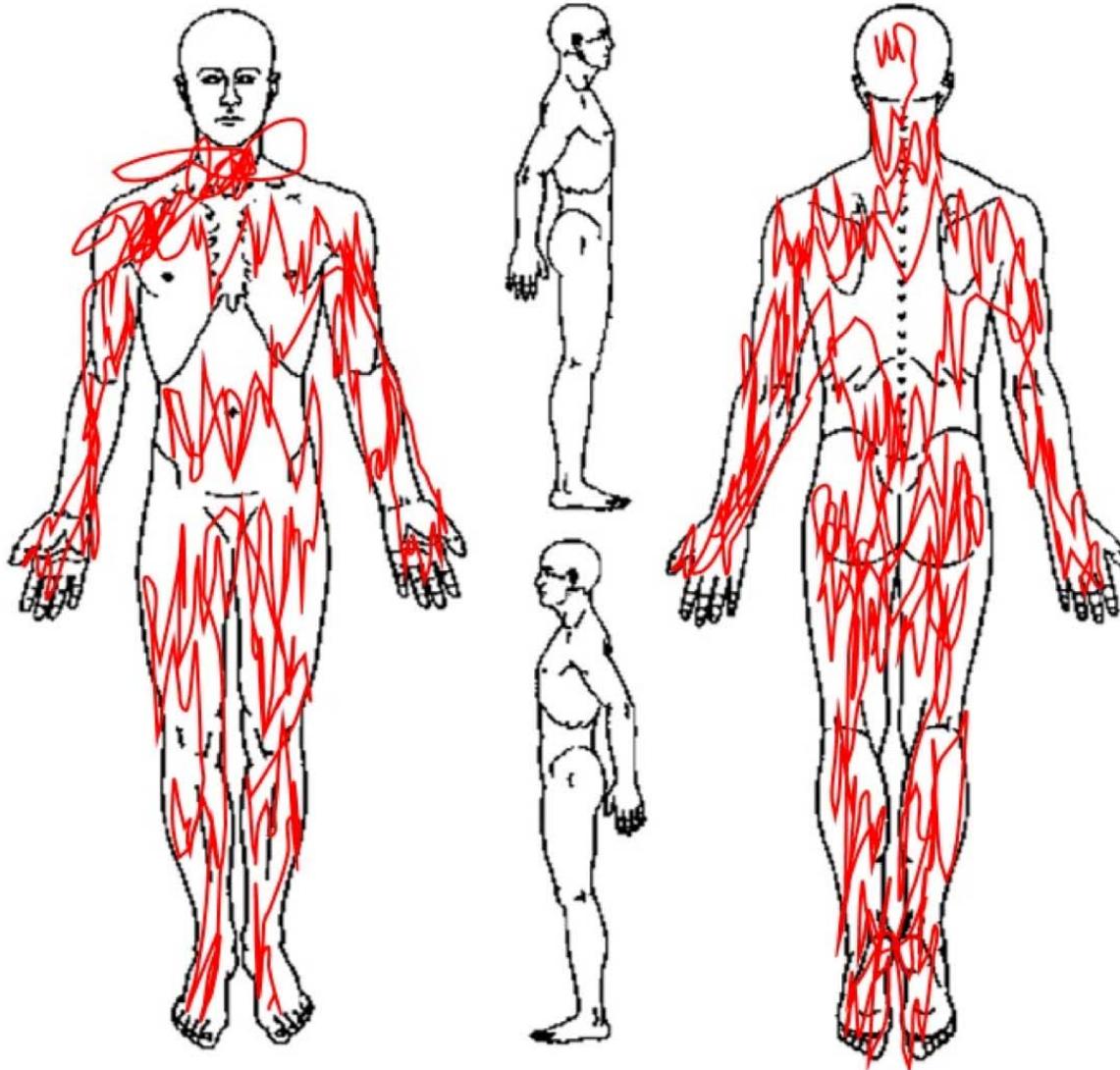


PAIN DIAGRAM

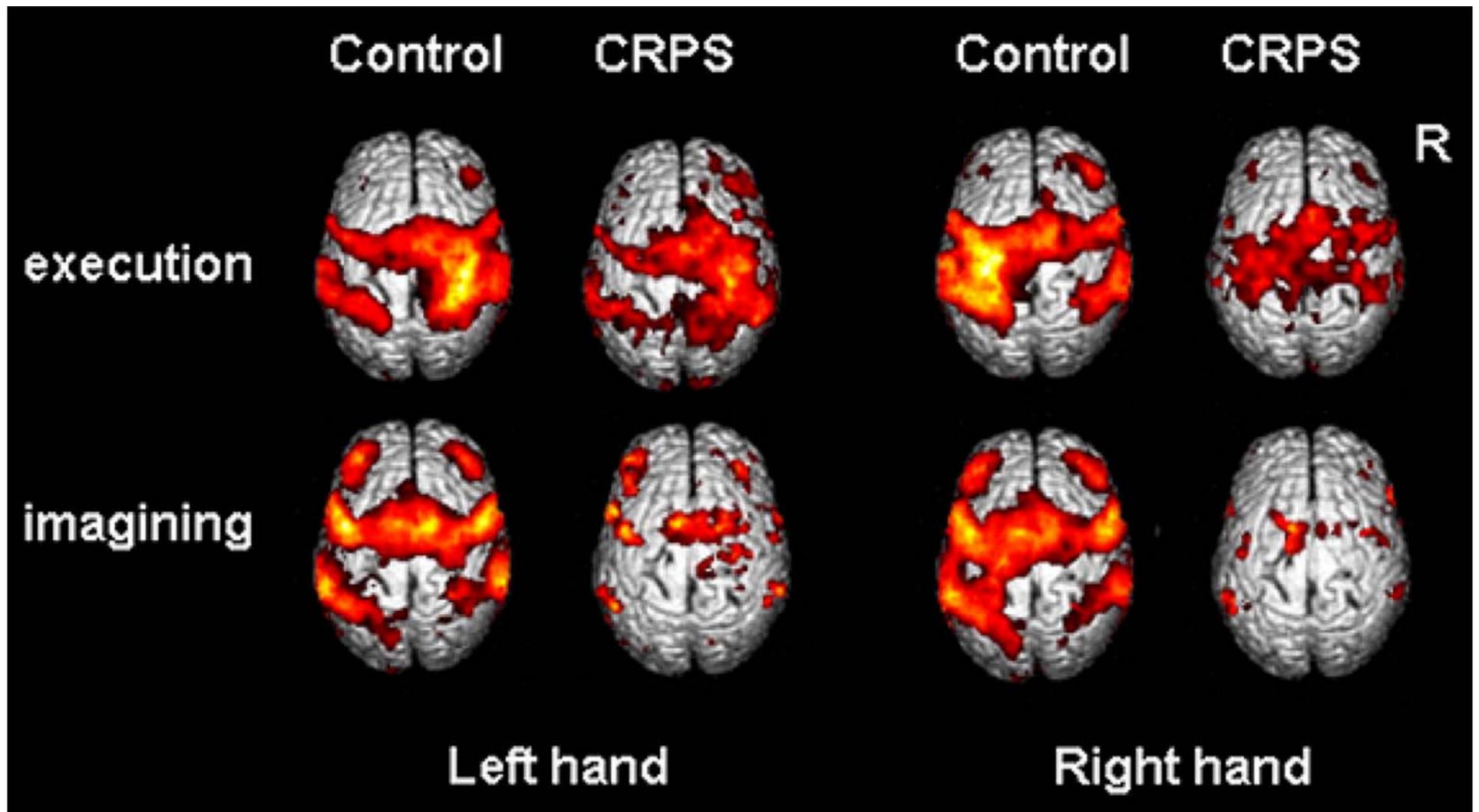
PATIENT'S NAME _____

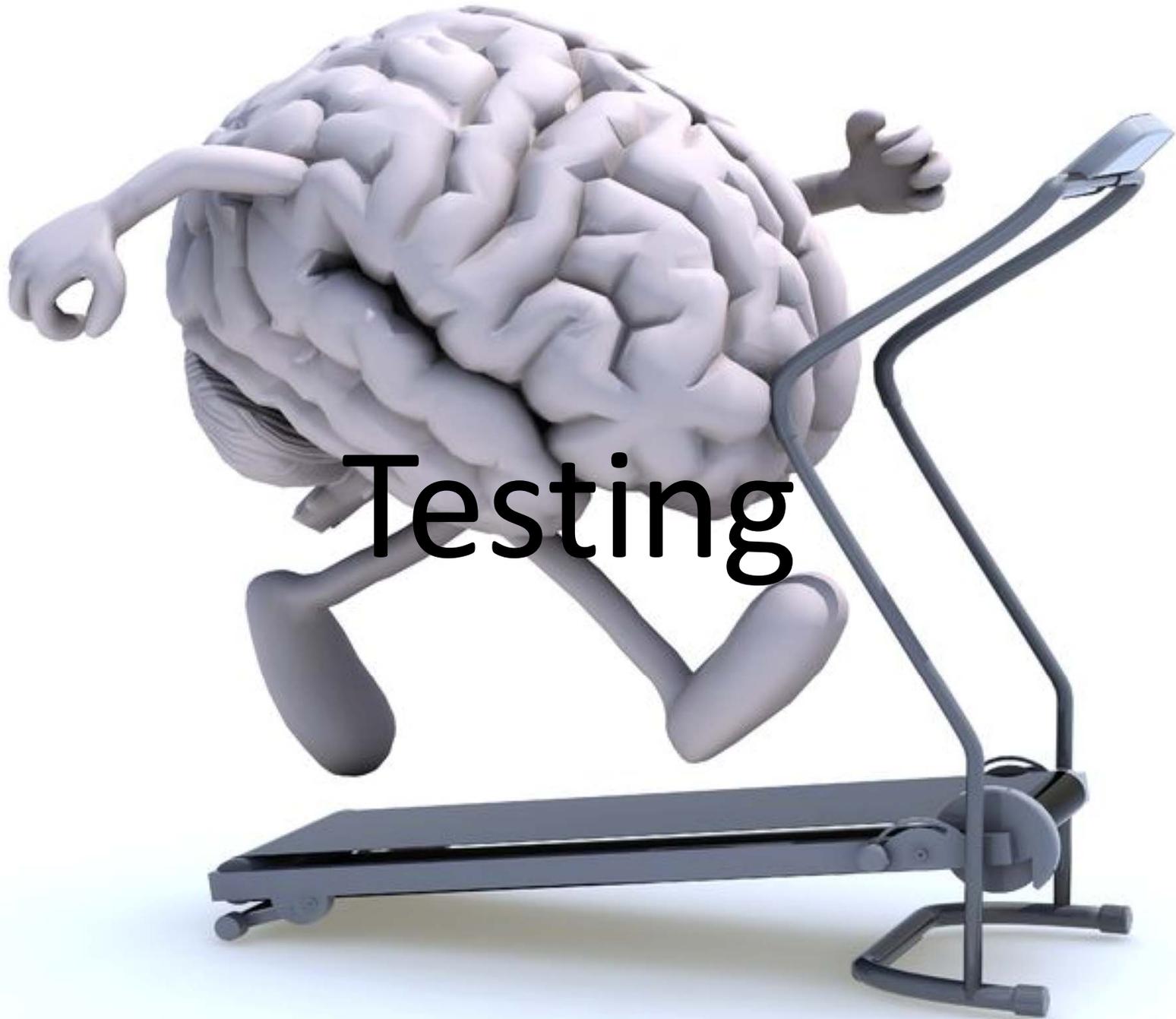
On the diagram below, please indicate where you are experiencing pain or other symptoms. Use the following to describe your symptoms:

A = Ache B = Burning N = Numbness P = Pins & Needles S = Stabbing O = Other



fMRI During Wrist Extension





Testing

Recognise

By noigroup

Open iTunes to buy and download apps.

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Description

Recognise™ Hands is the first way to accurately measure the ability to recognise left and right hand movements, and to train left/right discrimination as part of a comprehensive rehabilitation programme. You can learn more about how left/right discrimination forms part of the graded motor imagery rehabilitation process at

[noigroup Web Site](#) ▶ [Recognise Support](#) ▶

[...More](#)

[View in iTunes](#)

+ This app is designed for both iPhone and iPad

\$8.99

Category: [Medical](#)

Released: Oct 13, 2011

Version: 1.0

Size: 11.5 MB

Language: English

Seller: NEURO ORTHOPAEDIC INSTITUTE (AUSTRALASIA) PTY. LTD.

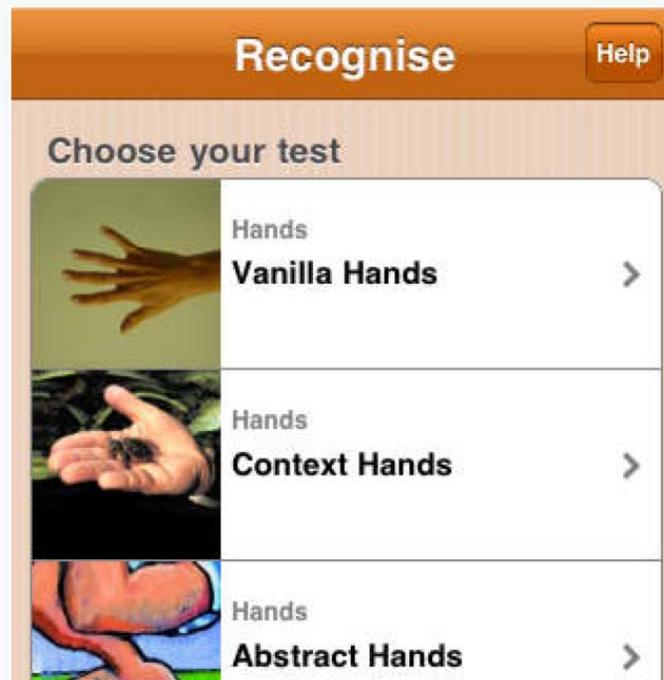
© 2008 Noigroup

[Rated 4+](#)

Compatibility: Requires iOS 3.0

Screenshots

iPhone | iPad



Recognise

Help

Choose your test

- | | |
|--|----------------------------------|
|  | Hands
Vanilla Hands > |
|  | Hands
Context Hands > |
|  | Hands
Abstract Hands > |

Neuro Orthopaedic Institute



www.noigroup.com

Vanilla Hands Options

Images 20 images

Time per image 5 seconds

Start



Vanilla Hands

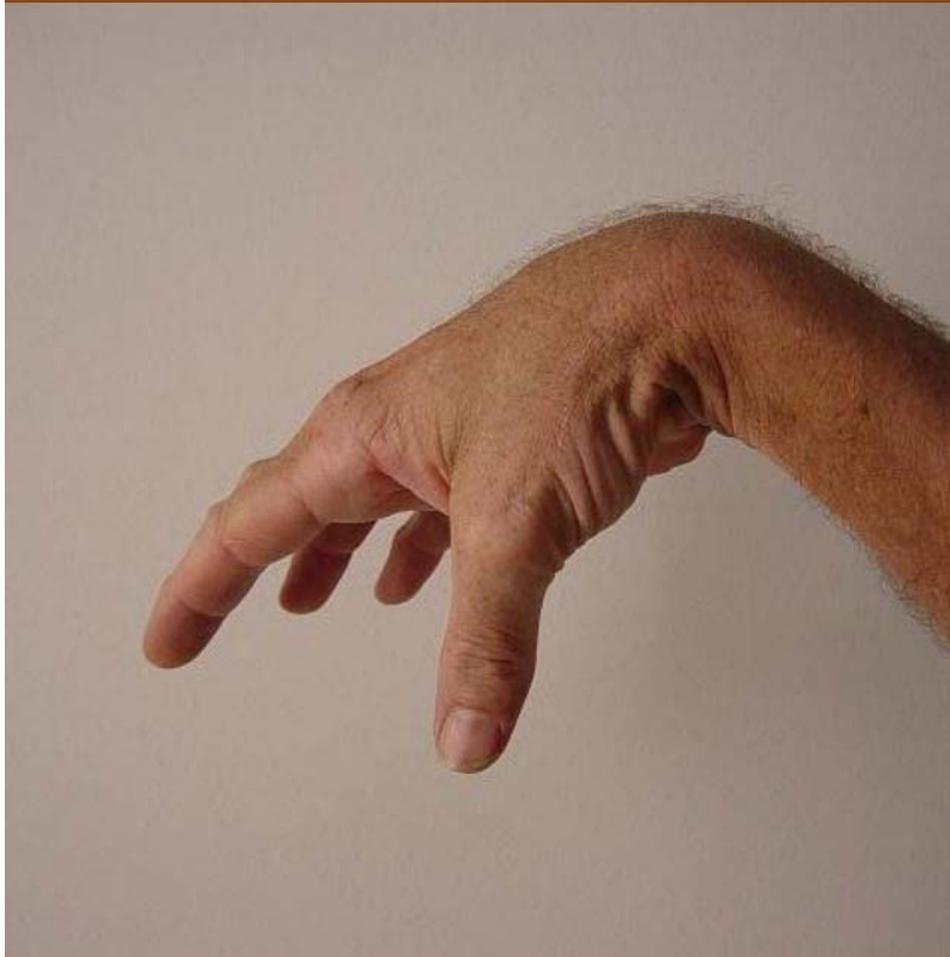


Left

Right



Vanilla Hands

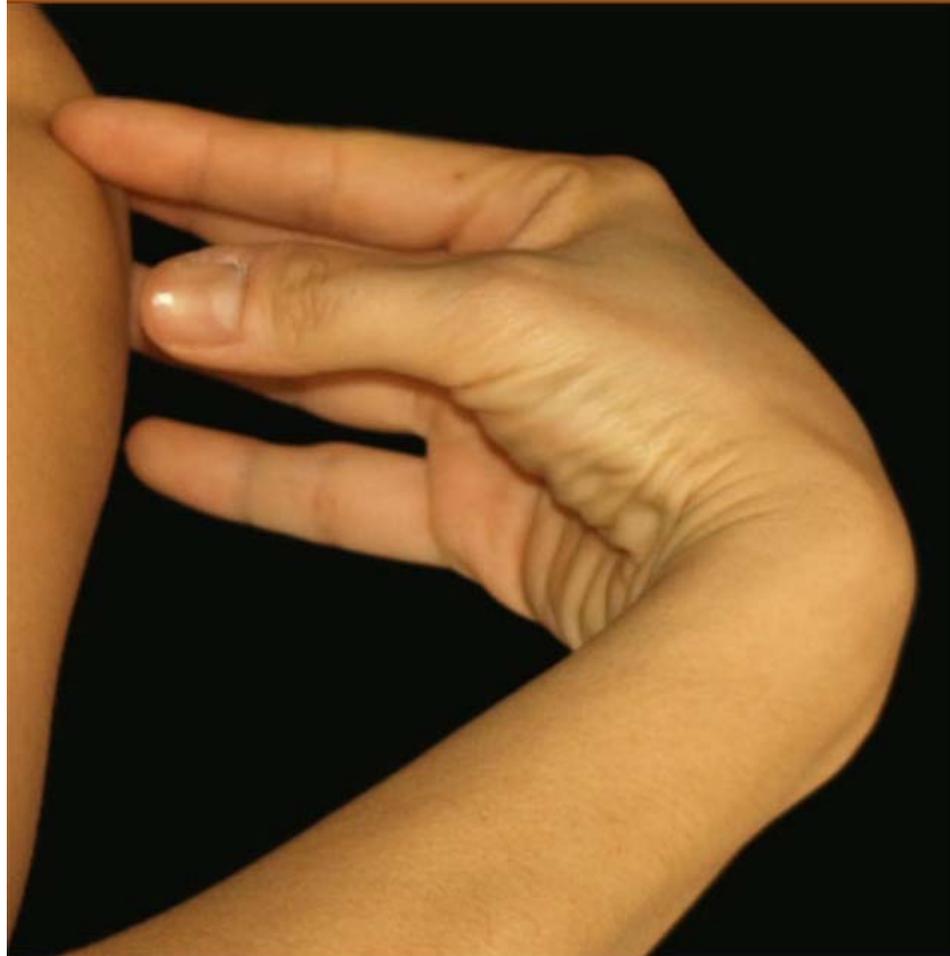


Left

Right



Vanilla Hands

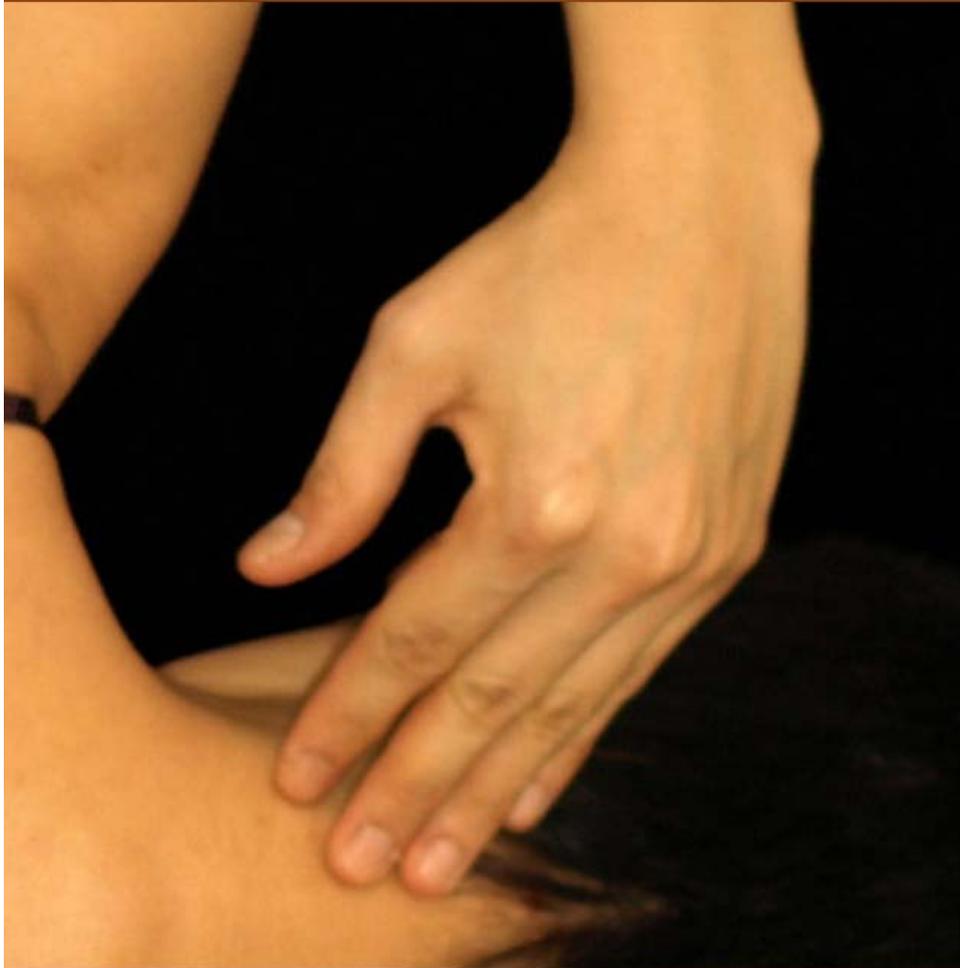


Left

Right



Vanilla Hands

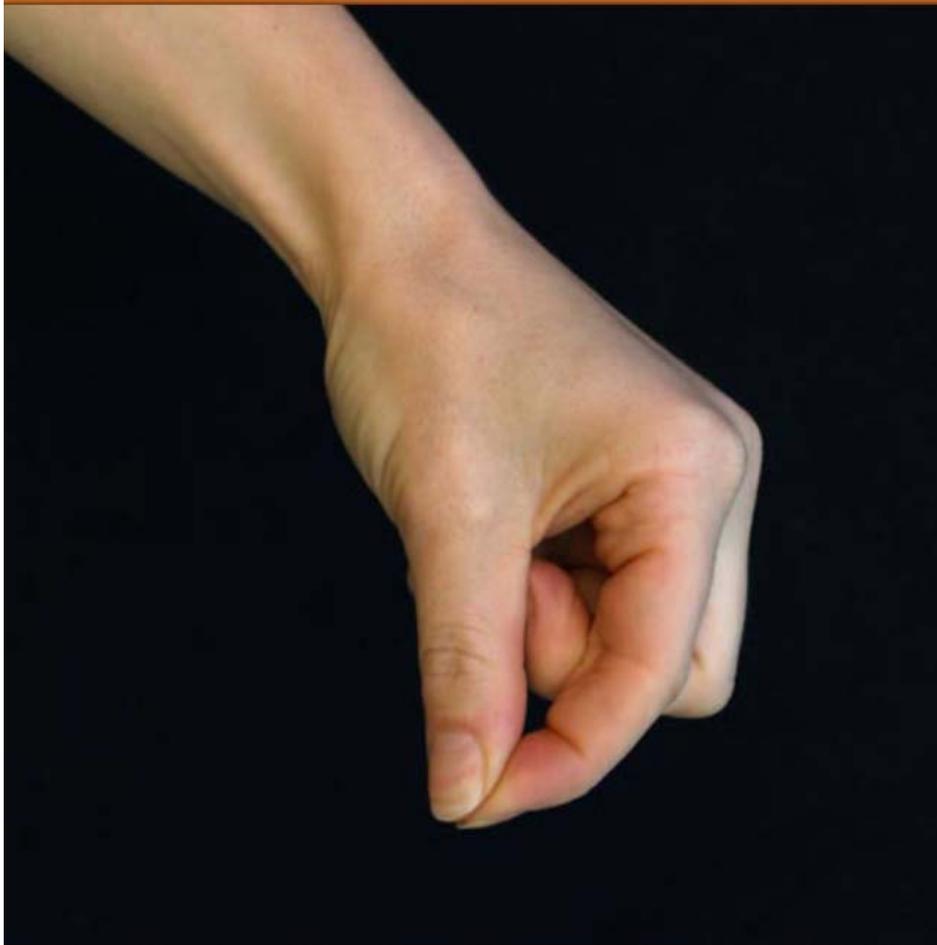


Left

Right



Vanilla Hands

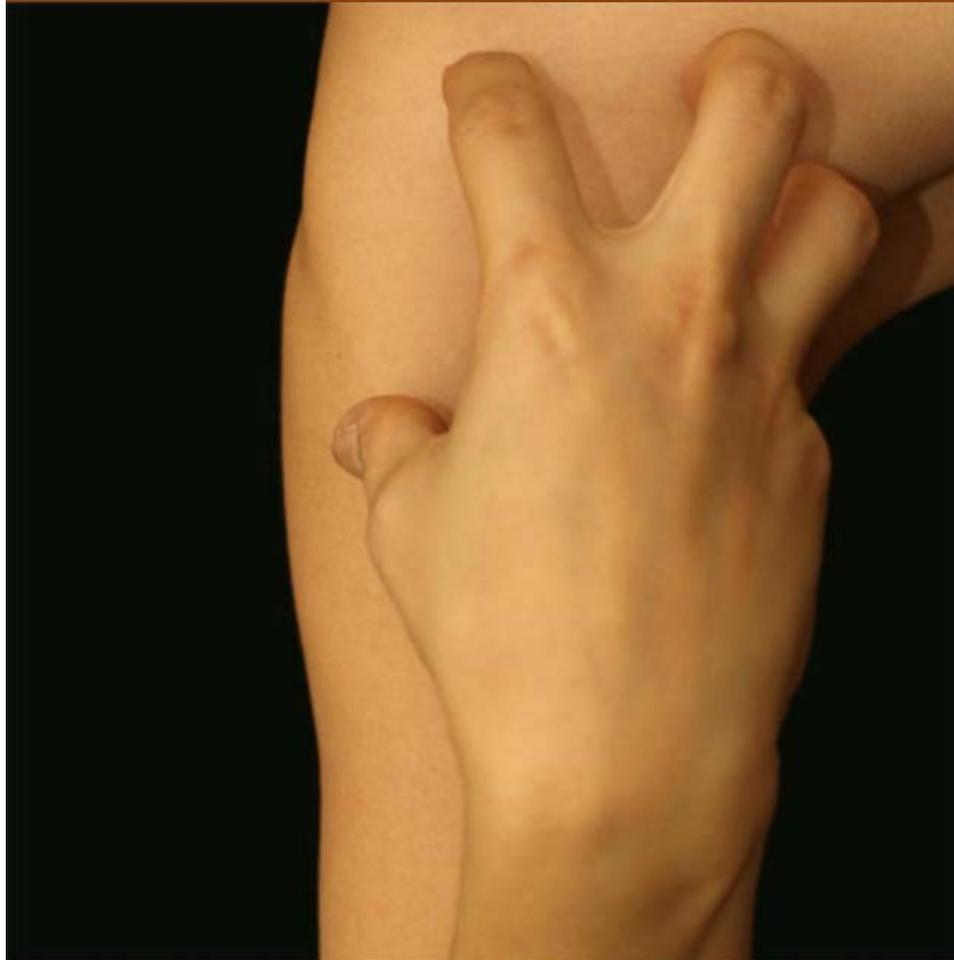


Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands

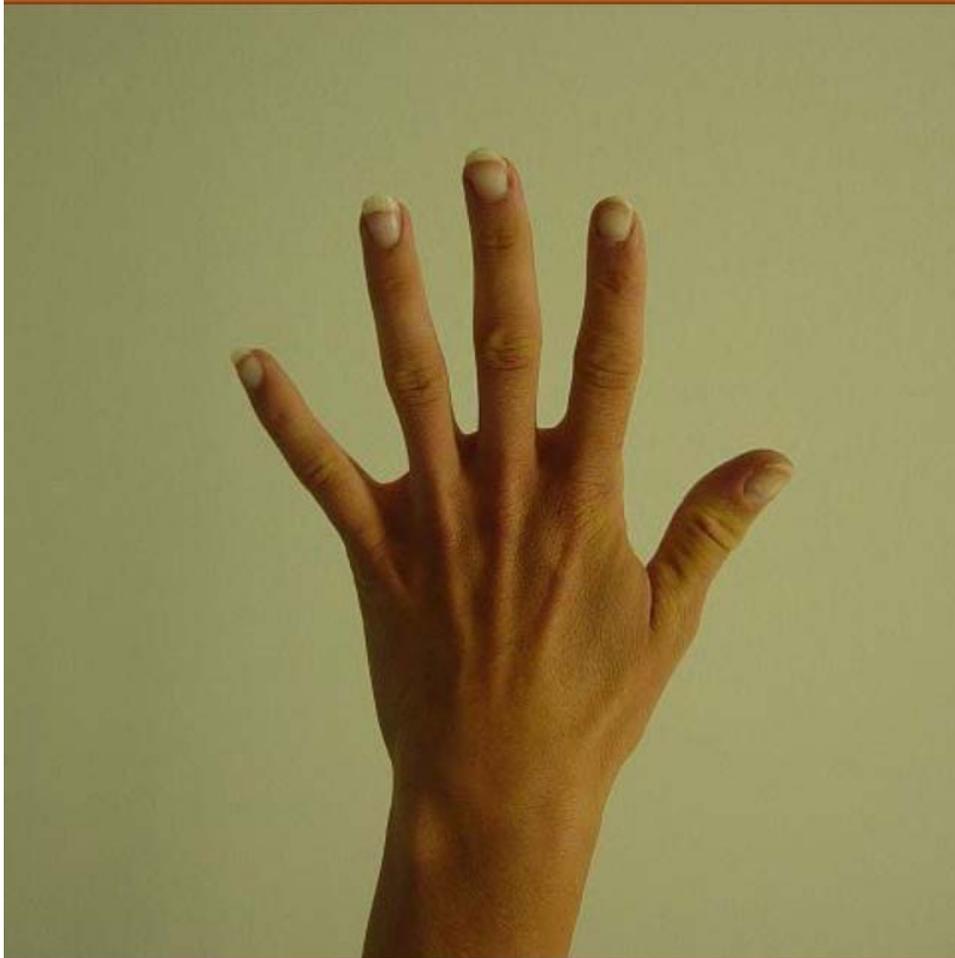


Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



Vanilla Hands



Left

Right



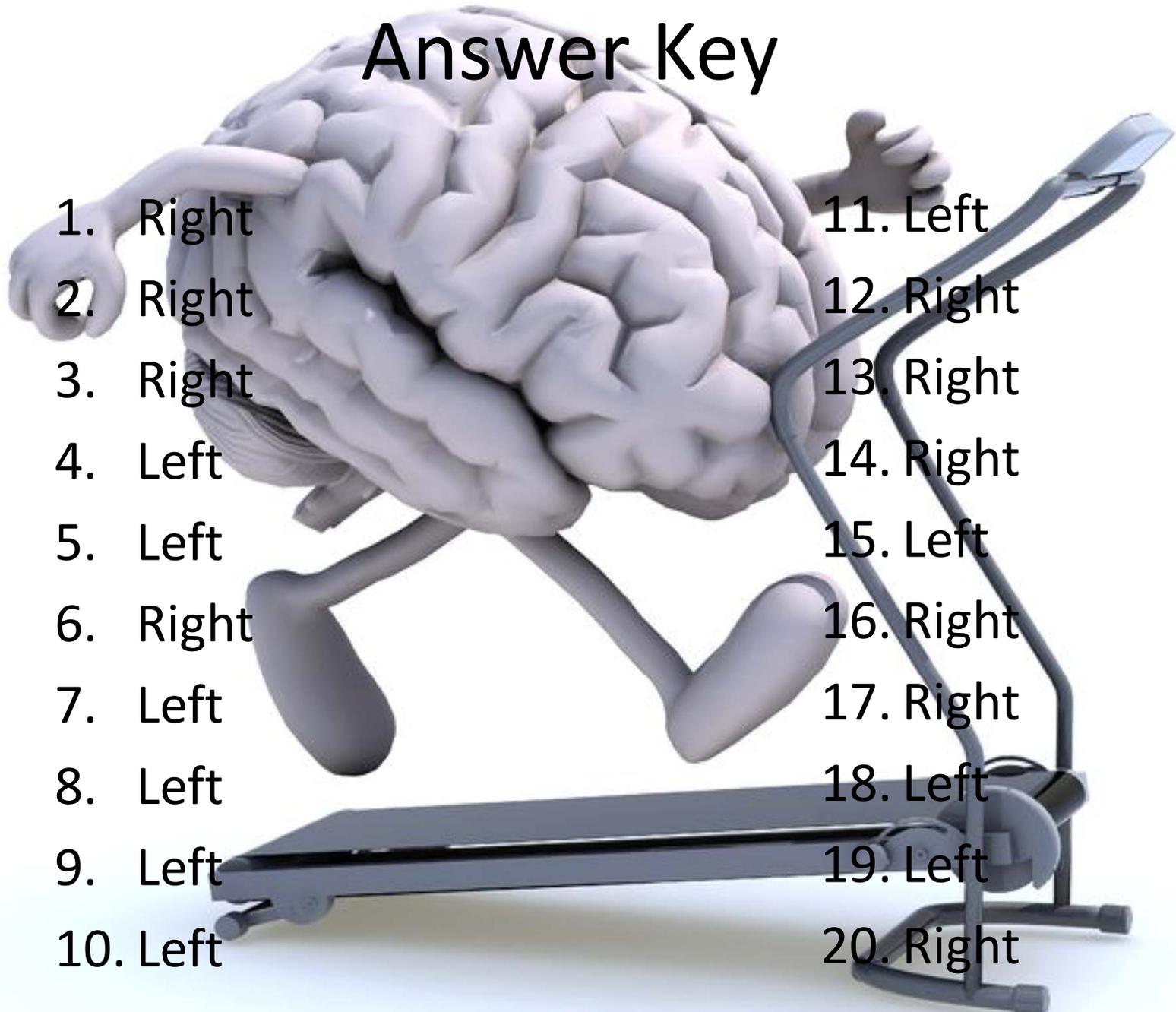
Vanilla Hands



Left

Right

Answer Key

- 
1. Right
 2. Right
 3. Right
 4. Left
 5. Left
 6. Right
 7. Left
 8. Left
 9. Left
 10. Left
 11. Left
 12. Right
 13. Right
 14. Right
 15. Left
 16. Right
 17. Right
 18. Left
 19. Left
 20. Right



Summary

Help

Test Summary

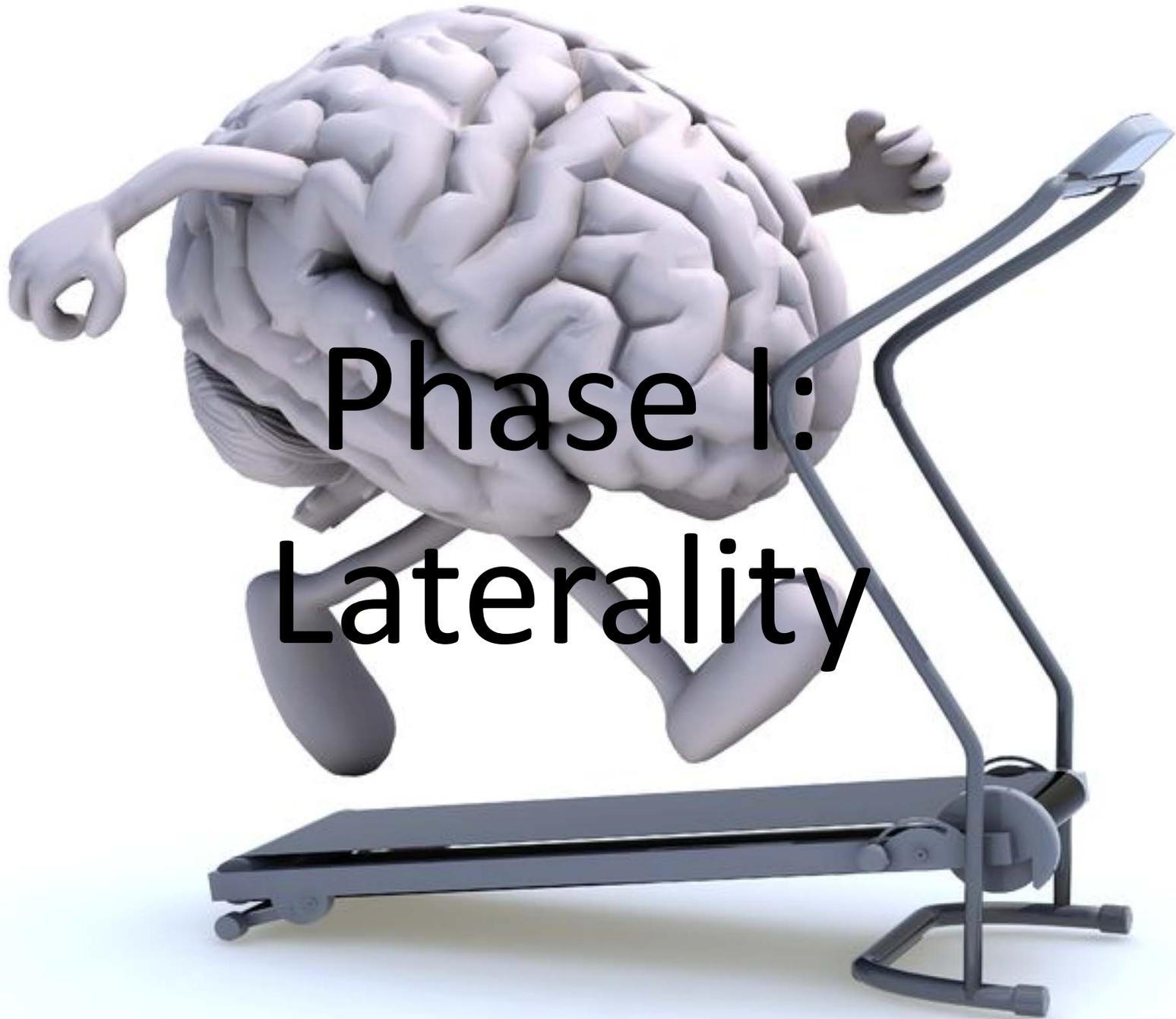
Results	Today	All
Left Accuracy	57%	57%
Right Accuracy	84%	84%
Left Speed	2.8s	2.8s
Right Speed	2.5s	2.5s

Start again

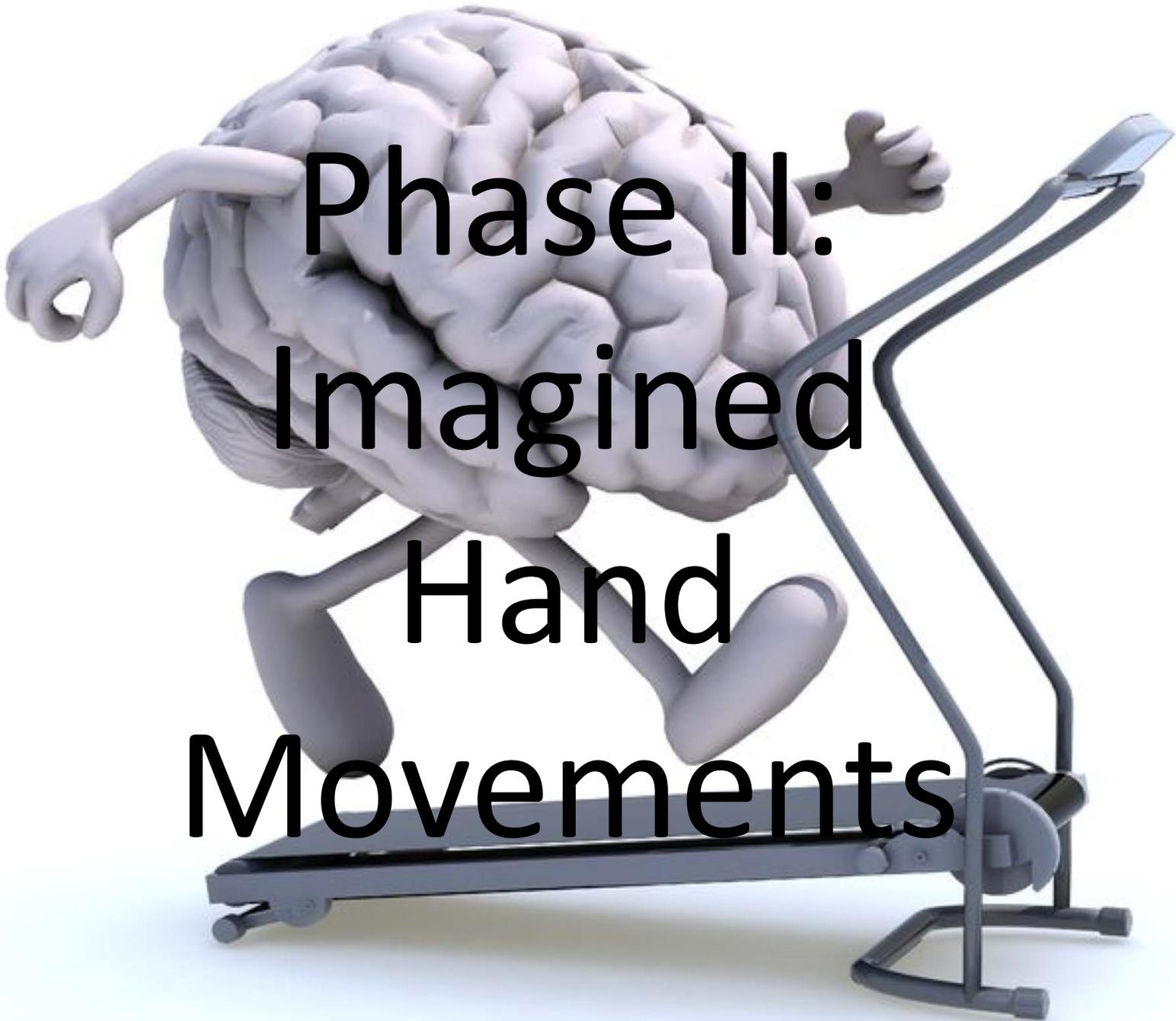
Results	Today	All
Images	20	20
Correct	15	15



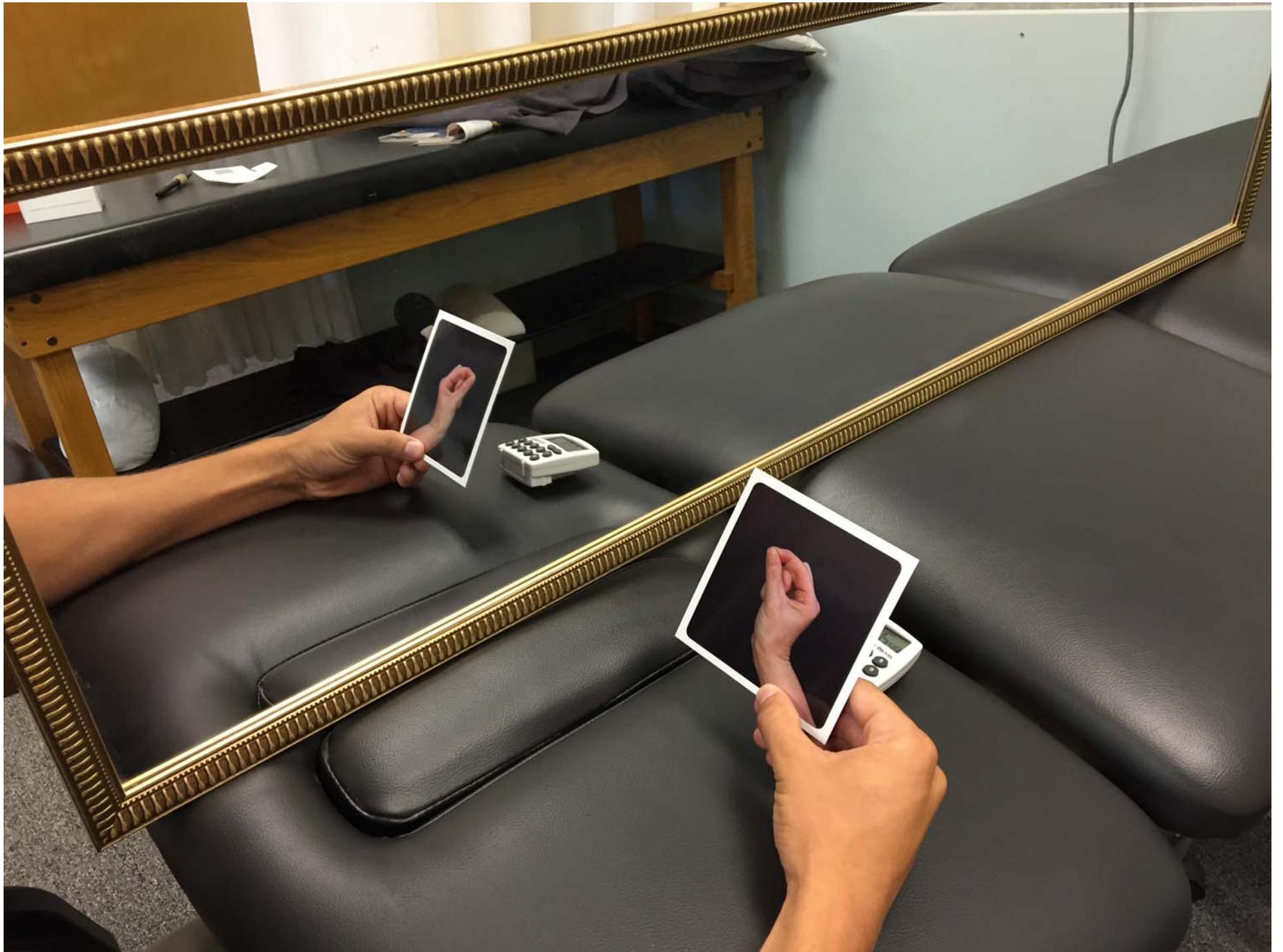
Re-Training

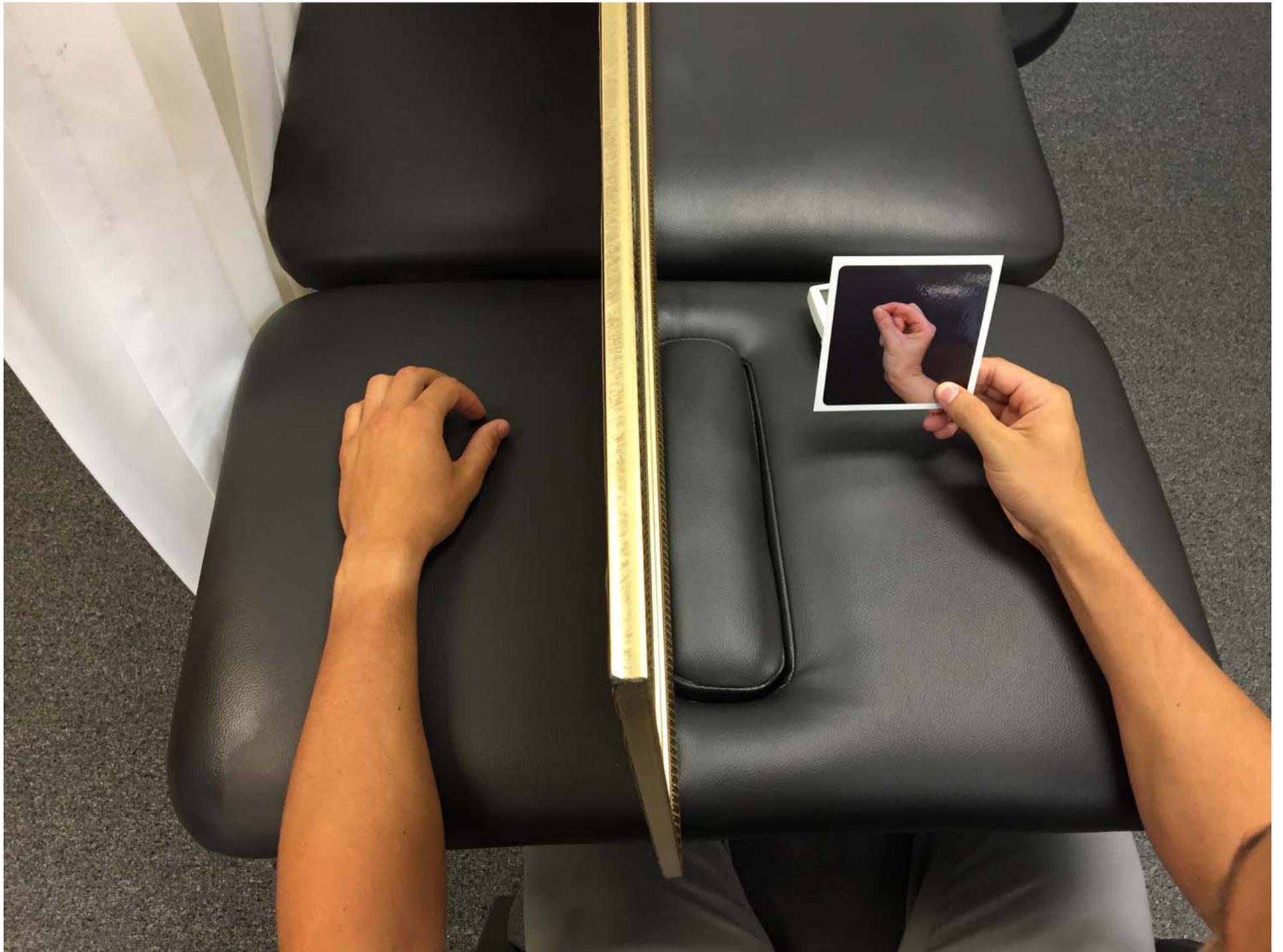


Phase I: Laterality

A 3D rendered brain with human-like arms and legs is shown running on a treadmill. The brain is the central focus, with its characteristic gyri and sulci clearly visible. It has two arms and two legs, all rendered in a light gray, fleshy texture. The brain is in a dynamic running pose, with its right leg forward and its arms swinging. The treadmill is a simple, dark gray mechanical device with a handrail on the right side. The background is a plain, light blue gradient.

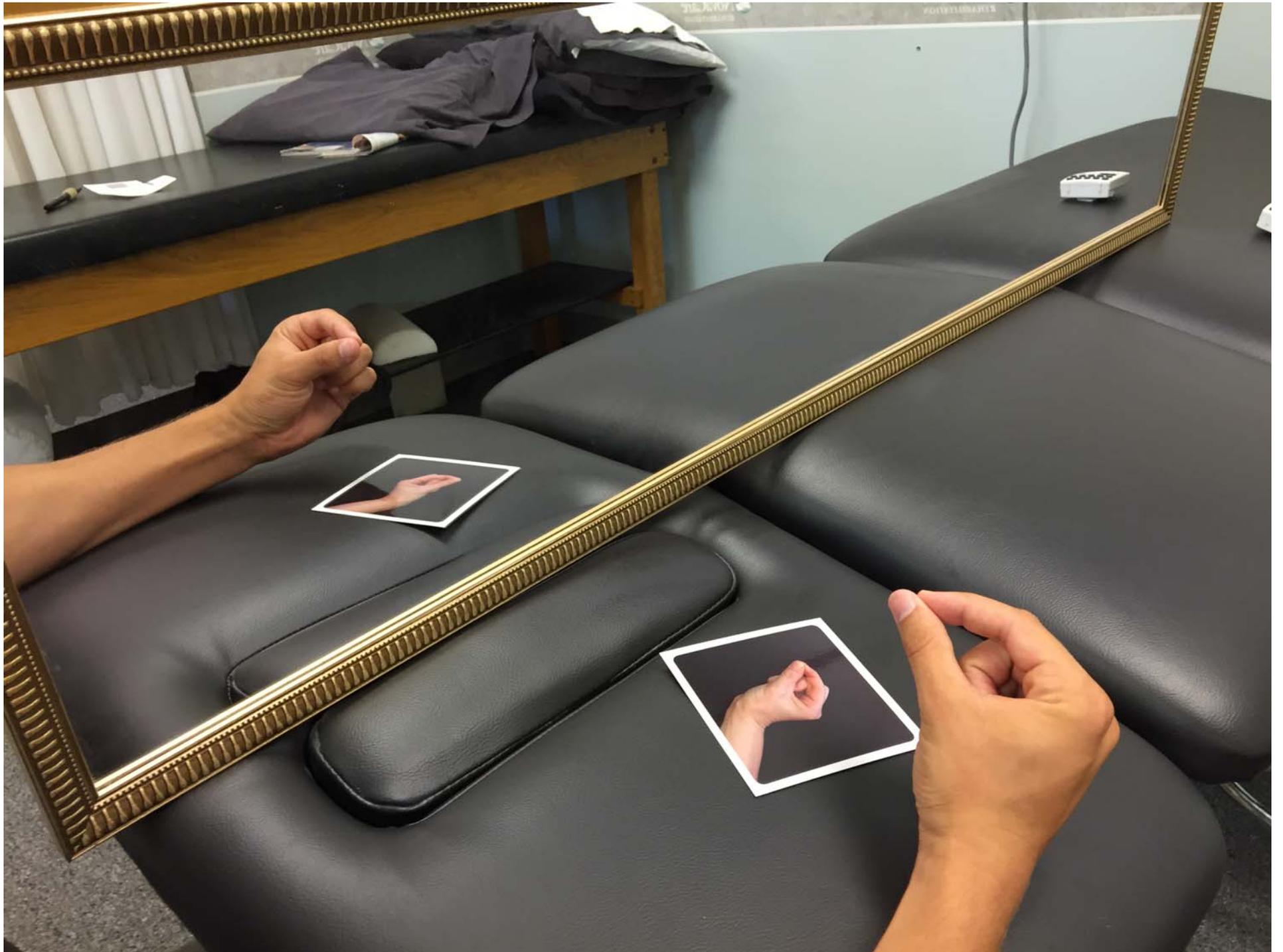
**Phase II:
Imagined
Hand
Movements**



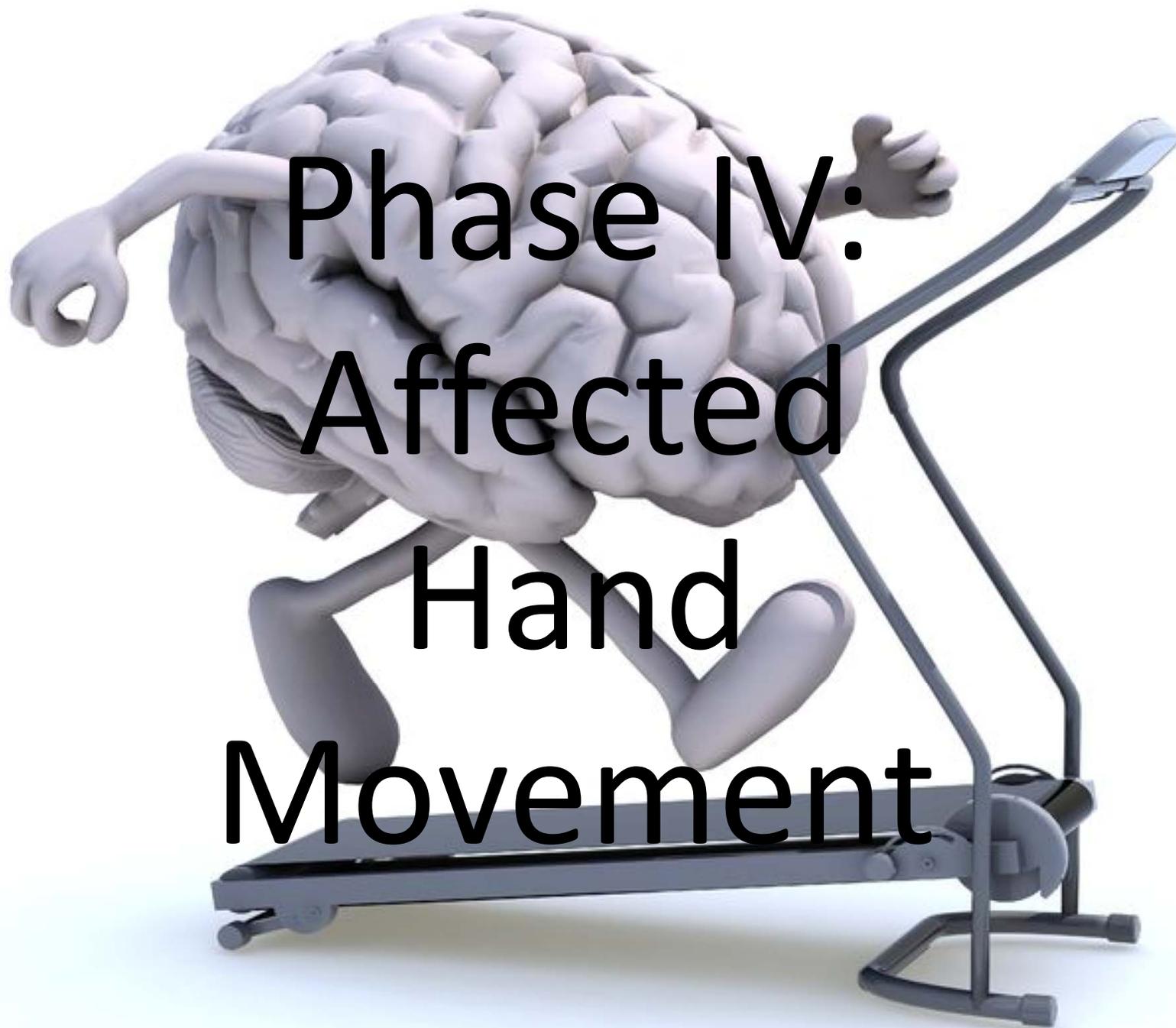




Phase III:
Unaffected
Hand
Movement

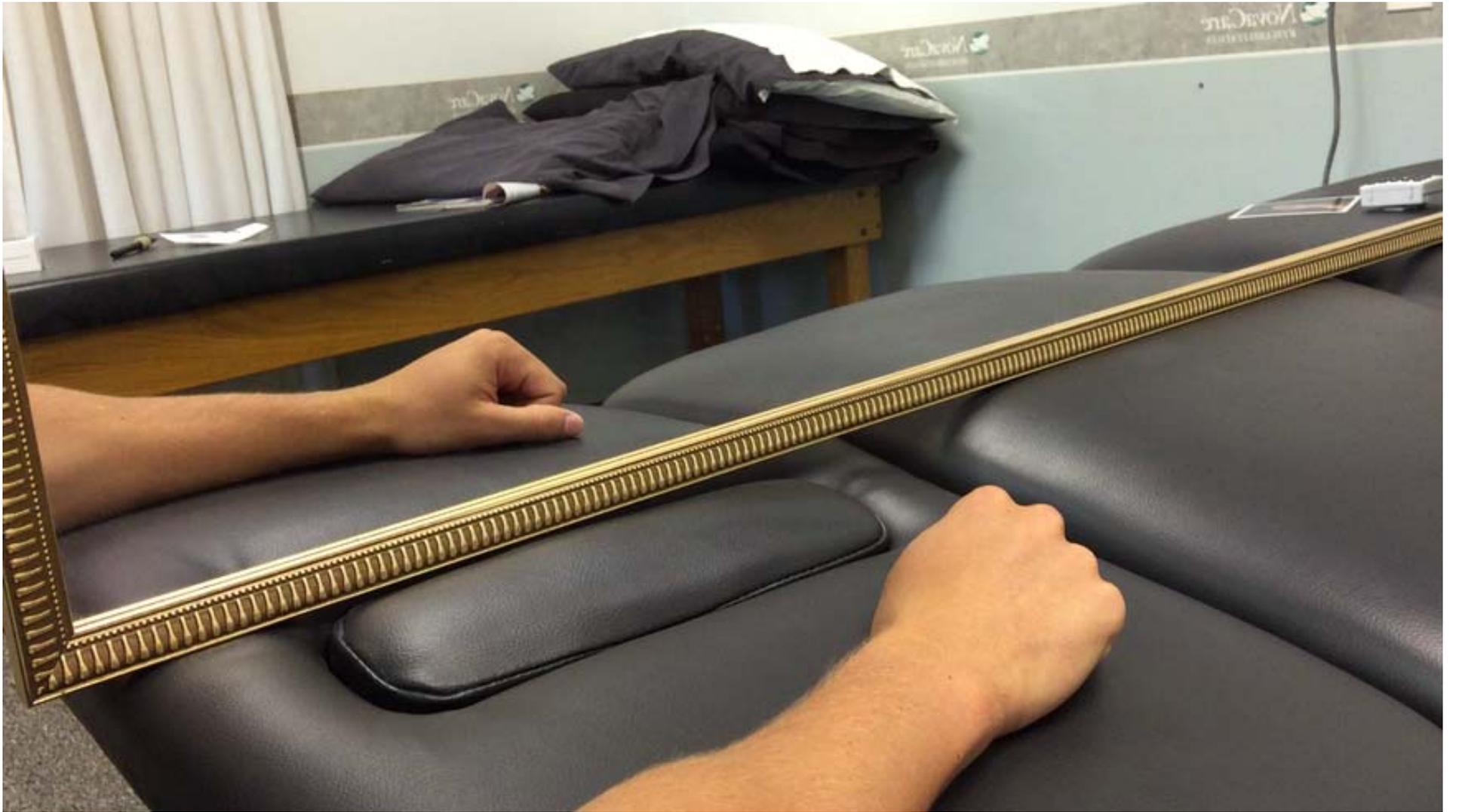






Phase IV:
Affected
Hand
Movement







Questions?



Thank You

References

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