Grading Up the UE & Morning Wrap Up

1

ACUTE and IP Therapists: Triage for Early Extension & Abduction!!

Active finger extension is a strong predictor of short, medium, and long-term post-stroke recovery

(Smania et al. 2007)

Minimal UE shoulder abduction & proximal motor control at admission to rehabilitation → "good" chance of regaining some hand capacity whereas patients without proximal arm control had a poor prognosis for regaining hand capacity (Houwink et al. 2013).

Patients with some finger extension & shoulder abd. on Day 2 → 98% probability of achieving some degree of dexterity at 6 months; Only 25% in those who did not show similar voluntary motor control.

60% of patients with finger extension within 72 hours had regained full recovery of upper limb function @ 6 months (Nijland et al. 2010).

2

UE Treatment Template:
(Possible) Anatomy of a UE Therapy Session

- Review Homework (if applicable)
- Preparatory Strategies (1-2)
- One Priming Strategy
- Repetitive Task Specific Practice
- Education (Patient and care partner)
- Debrief
- Assign Homework

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Preparatory Strategies (1 – 2)

- Scapular Mobs
- Taping
- Thermotherapy
- Cryotherapy
- Stretching
- Acupressure/Massage

Mitigating Impairments

Priming Strategies (1)

- Mirror Therapy
- Aerobic Exercise
- Mental Practice
- Brain Stimulation
- Manipulation of Sensory Input
- Medications

Getting the CNS Ready to Change and Learn

Stoykov ME, Madhavan S. Motor priming in neurorehabilitation. J Neurol Phys Ther. 2015

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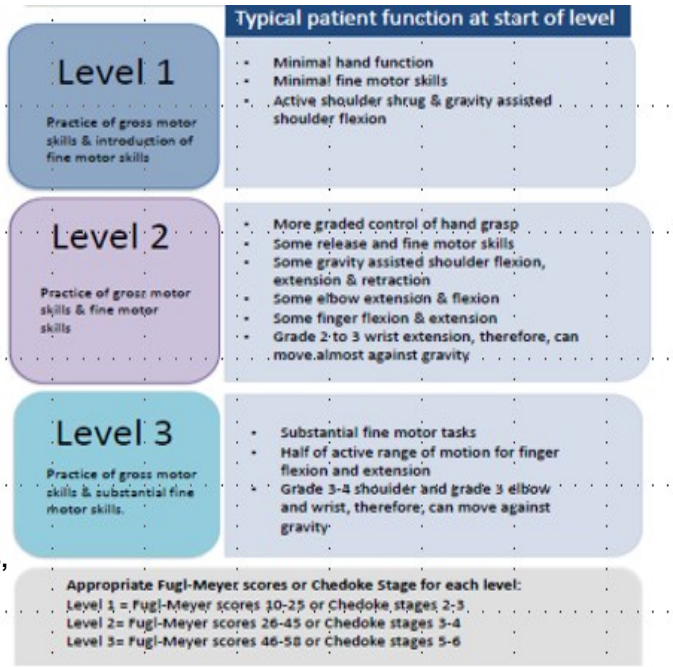
Stratify Your Interventions By Impairment Level

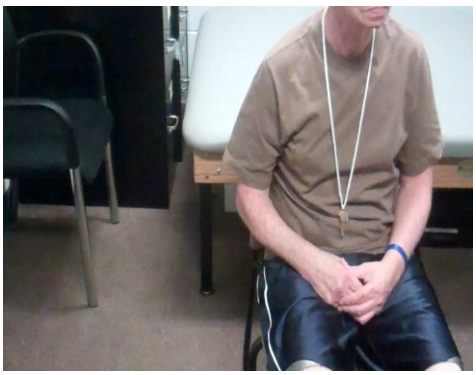
Picture courtesy of: Carrie Crapanzano OTR/L CSRS, Emily Heerema-Smith OT CBIS CSRS; Johnson Rehabilitation Institute at Ocean University Medical Center



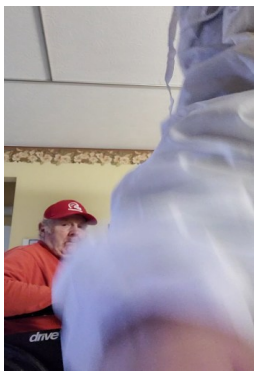
https://neurorehab.med.ubc.ca/files/2016/08/GRASP-Instructor-Manual-Ver2.pdf

5

Examples of Each Impairment Level



Fugl-Meyer Score 10 - 23



Fugl-Meyer Score 24 - 45

Fugl-Meyer Score 46 - 58

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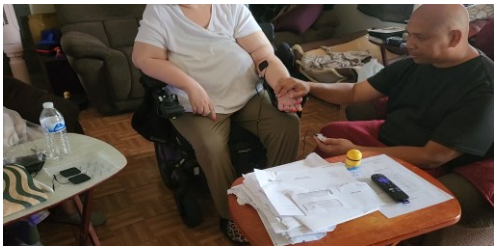
Circuit Training Ideas:

Fugl-Meyer Score
0 - 23

- Use FIST and FM to identify assets, location in space to challenge
- Integrate functional objects, spouse, frequently-used items located in the home
- Challenge mobility and position (in the chair; in the gym)
- Have them identify targets, rewards



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Circuit Training:

Fugl-Meyer Score
24 - 45

Poor in-hand coordination

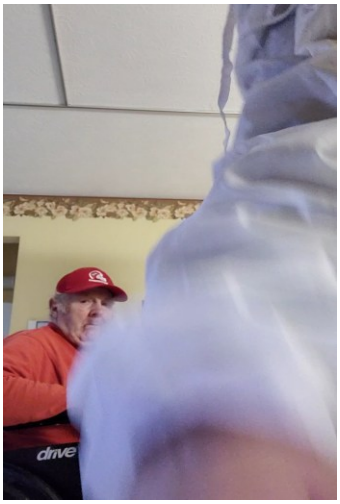
Poor insight

Reduced safety awareness

Poor compliance with exercises and AE use/ max VCs and signage

Activation proximally and distally (brain stem stroke)

Poor conditioning



W/B & weightshifting w small steps & into different planes

Leading questions

Signage and “check-ins” by staff/staff education

Situate ADL items low and close

Lots of L UE use with error augmentation & external cues d/t poor insight

Increasingly short breaks

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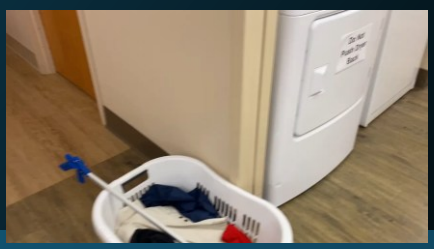
Circuit Training Ideas:

Fugl-Meyer Score
46 - 66



Movies courtesy of:
Celina Parkman, MS, OTR/L, CSRS
WellStar Health, Marietta GA

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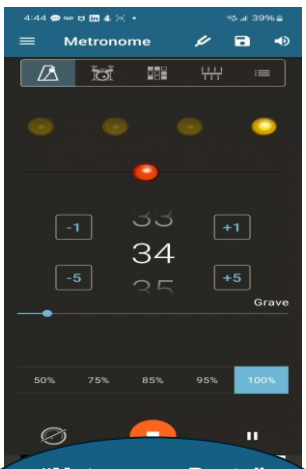
Circuit Training:

Maximize Error, Feedback, and Speed for Challenge

Review > Top Stroke Rehabil. 2016 Apr;23(2):116-25. doi: 10.1179/1945511915Y.0000000007. Epub 2016 Feb 8.

Error augmentation as a possible technique for improving upper extremity motor performance after a stroke – a systematic review

Finger weights • Weighted gloves • Pulling into error (wrong plane; correct plane) • Trunk restraint • Making the task harder than it would normally be (size of items; speed at which task is performed; size of target; positioning of patient)



"Metronome Beats"
https://stonekick.com/metronome.html

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Adaptations for Functional Task Practice

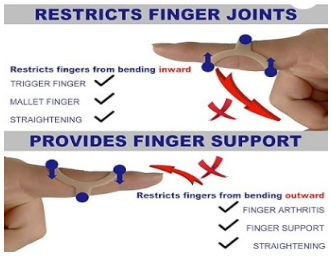
Wrist Support With Palmar Swivel Clip

Leather covered metal splint, with plastic palmar clip and a utensil pocket.

The clip is heated with a heat gun before adjusting.

Wrist position changes by bending the metal.

Amazon.com $59.95



Ring Splints

Plastic splints that encourage PIP and DIP extension, discourage flexion and internal/external deviation.

Amazon.com $7.99

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Adaptations for Functional Task Practice

Thumb Abduction Splint

Neoprene splint that wraps around hand and wrist with velcro. Isolates thumb into abduction; patient uses intact grasp for grasp/release. Less “medical” looking.

$9.00 - $20.00

Radial Nerve Splint

Neoprene splint that maintains the wrist and fingers in extension. Patient can go into flexion under his/her own power. Adjustable “tendons.”

Amazon.com $85.99

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Debriefing (5 mins)

Discussing exercises that were performed

- Ask patient to identify and describe them
- Highlighting skilled strategies that you employed and why

Discussing what was successful/unsuccessful with patient/care partner

Patient-reported	Patient ideates why strategies worked/did not work	How long? How many? With what resistance?	Notes: "Educated;" "Patient ideated with xx VCs;" "Reviewed"

Discussing what will be done at next session, in light of the above challenges/successes

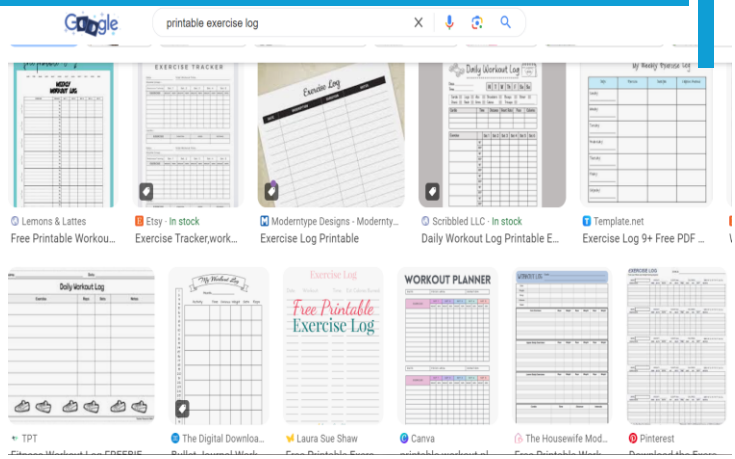
13

Logging Their Efforts:
The Basis of the Next Therapy Session

Ensure accountability

What wasn't successful?
How can we make it better?
You only did xx reps; *WHY*?

Change practice environment?
Time of practice?
Compensatory strategies or AE?



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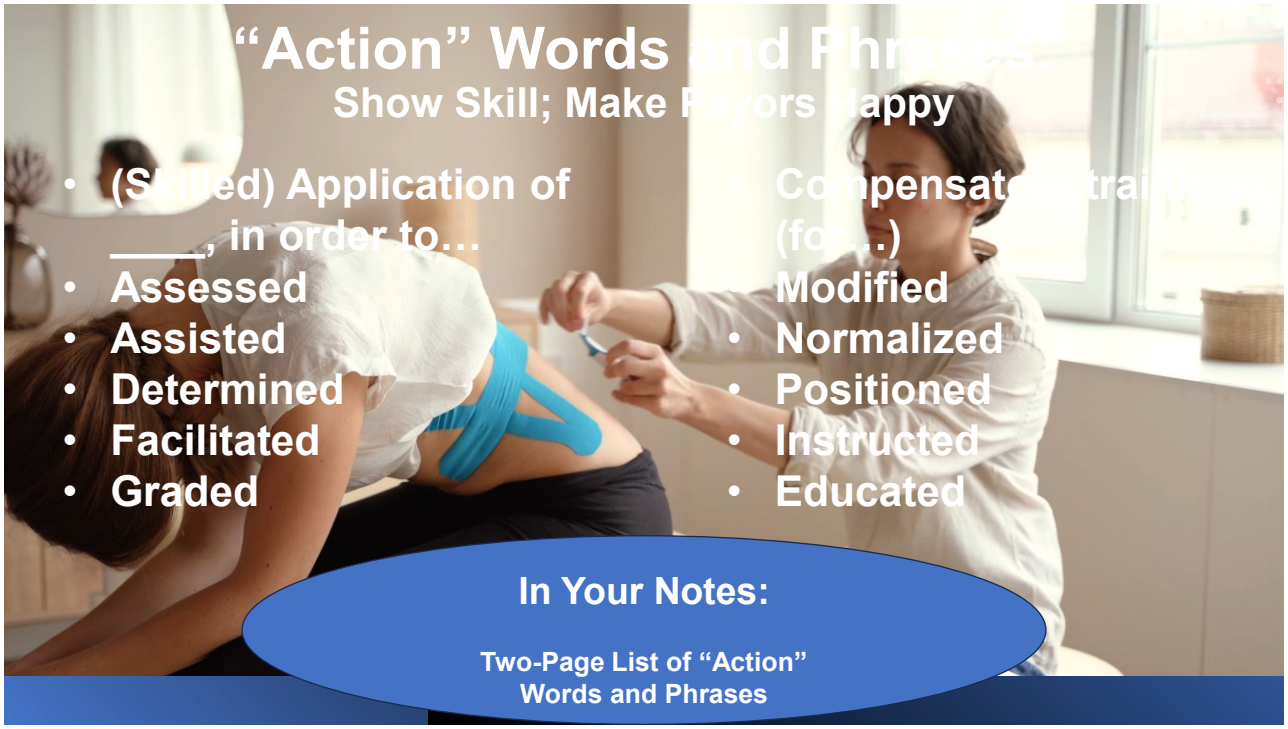
"Action" Words and Phrases
Show Skill; Make Payors Happy
• (Skilled) Application of ____, in order to…
• Assessed
• Assisted
• Determined
• Facilitated
• Graded
• Compensat… train…
(for…)
• Modified
• Normalized
• Positioned
• Instructed
• Educated
In Your Notes:
Two-Page List of "Action" Words and Phrases

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LUNCH!

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