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### Energy Conservation for Food Growers with Chronic Fatigue

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## Background

- Sequelae of SARS-CoV-2 has been described as a form of Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) (Komaroff & Bateman, 2021; Poenaru et al., 2021).
- Etiology may be attributed to injury to brain, lungs, heart, and other internal organs.
- Graded therapeutic exercise, once a recommended strategy, may increase post-exertional malaise (Poenaru et al., 2021).
- This disrupts activities of daily living (Sapra & Bhandari, 2021).

**Post-exertional malaise** results in activity restriction for millions of people living in the U.S (Valdez, et al., 2020), including reduction or cessation of paid employment (Vink & Vink-Niese, 2019).

## Post COVID-19 and ME/CFS

There is insufficient evidence that COVID-19 is a trigger for CFS/ME, however, there are many important similarities (Poenaru et al., 2021).

- Rest may be the best option for some individuals to avoid extreme lasting fatigue especially if the person experiences post-exertional malaise.

Treatment for CFS possibly linked to COVID-19 does not include Graded Exercise Therapy (GET) because of the post-exertional malaise that patients report leaves them bedbound for several days (Poenaru et al., 2021).

- Delegation of labor may be required, along with Cognitive Behavioral Therapy approaches for addressing beliefs and self-image concerns.

## Role of Occupational Therapy

The primary role of OT in promoting energy conservation:

- Prioritize assessment(s)
- Create energy conservation habits and routines
- Modify/adapt heavy energy expenditure occupations
- Organize for efficiency and productivity

## Evaluation

Only the highest priority assessments should be used.

- Identify the most crucial occupational performance problems
- Utilize an assessment that meets the specific needs of performance problems

*There are many great high-quality, open-source assessment tools available for free. Check the QR code in the right-hand corner for more information.*

## Assessment Tools

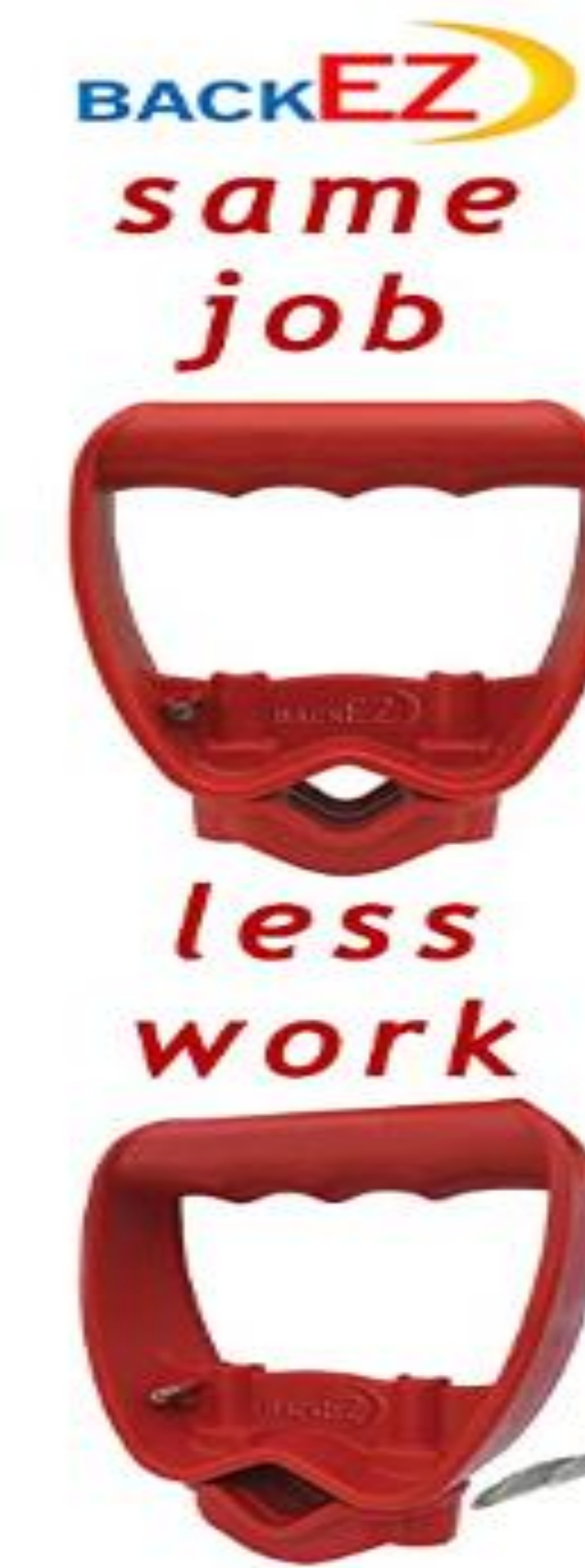
Beck Depression Inventory	Detects depressive symptoms
Canadian Occupational Performance Measure	Client-reported occupational performance, satisfaction, and importance
Fatigue Severity Scale (FSS) /Fatigue Impact Scale (FIS)	A measure of the impact of fatigue on a client
Generalized Self-Efficacy Scale	Self-report measure of optimistic self-beliefs
Health Assessment Questionnaire (HAQ-DI)	Measure of functional status
Hospital Anxiety and Depression Scale (HADS)	Measure of anxiety and depression in a general medical population
Life Satisfaction Questionnaire	Measures satisfaction across different domains of life
Metabolic Equivalent (METs)	Chart to formulate metabolic equivalents to assess occupations for appropriateness
Mindfulness Attention Awareness Scale	Scale to measure a client's mindfulness
Visual Analogue Scale (VAS)	Pain rating

## Intervention

- Reduce steps:** have all necessary tools ready to complete multiple steps
- Assistive technology:** reduce energy expenditure with ergonomically-designed tools and equipment that reduce strain and increase productivity. Use cognitive prosthetics to compensate for brain fog (and to delegate memory tasks).
- Create rest break schedules:** set timers to rest to allow adequate resting.
- Prevention:** limit heat exposure and ensure client adequately hydrates.
- Promote mental health:** incorporate healthy attitudes, perspectives, and beliefs.

## Assistive Technology Devices for Energy Conservation

**Long-reach cultivator** by PETA LTD (left); **Gardening Stool** by vertex (lower left); **Back EZ handle attachment** by BackEZ (lower right)



## References, Links, and More

**Disclosure:** This project is a collaboration with the University of New Mexico, New Mexico State University, National AgrAbility, New Mexico AgrAbility and Mandy's Farm. The presenters have no financial interest with any assessment/intervention strategies or products discussed in this poster.



Severe Fatigue

Brain Fog

Sleep Problems

Autonomic Dysfunction

Post Exertional Malaise