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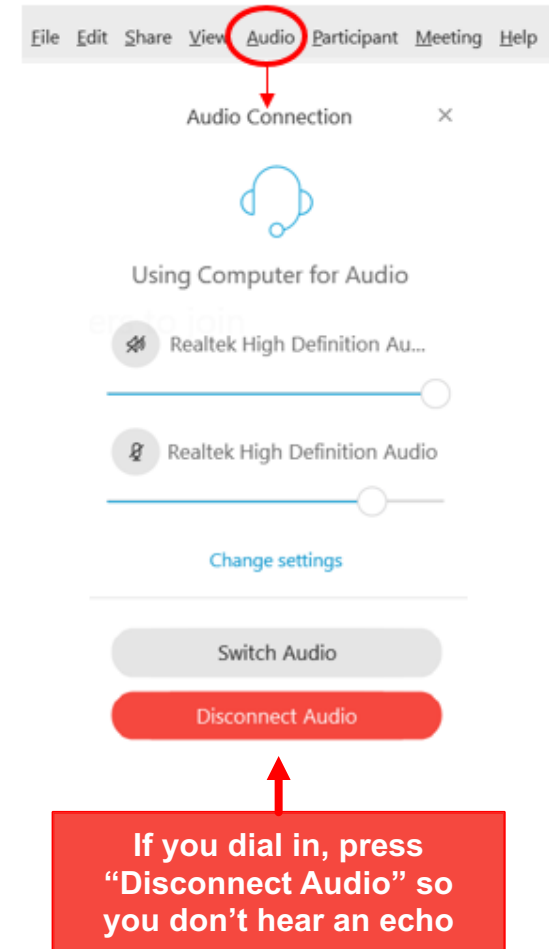
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From catastrophic injury through recovery: What treating the whole person really means

Steven Moskowitz, MD

Senior Medical Director, Paradigm

Hassan Moinzadeh, MD, PhD

Medical Director,

Paradigm Catastrophic Care Management

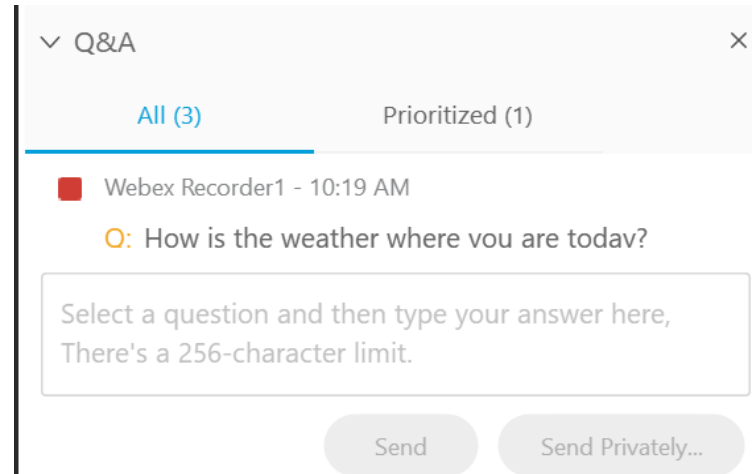
Welcome and Logistics

FAQs

- ▶ Slides advance automatically
- ▶ Q&A after presentation
- ▶ Presentation is posted at <https://www.paradigmcorp.com/webinars>
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- ▶ Submit questions at any time
- ▶ Q&A panel at lower right of your screen
- ▶ Type question into lower section of Q&A panel.
- ▶ Ask All Panelists and click Send
- ▶ Answers to questions we don't have time to address on the webinar will be emailed individually



Q&A

All (3) Prioritized (1)

Webex Recorder1 - 10:19 AM

Q: How is the weather where you are today?

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Presenters and Objectives

Paradigm's Aim

With a mission to help as many people as possible, we work to restore an injured worker's health, their spirit, and their hope for a brighter future.

Presenters



Steven Moskowitz, MD

Paradigm Senior Medical Director

- ▶ Leads Paradigm's pain program
- ▶ Physiatrist with 30 year experience chronic pain, neurological rehabilitation
- ▶ 30 years experience in managed care and program development
- ▶ Certified in Managed Care Medicine



Hassan Moinzadeh, MD, PhD

Medical Director, Paradigm Catastrophic Care Management

- ▶ Physiatrist specializing in inpatient acute rehabilitation, musculoskeletal medicine, and pain management
- ▶ Associate professor at University of California, Irvine
- ▶ On staff at Long Beach Memorial Medical Center
- ▶ Licensed clinical psychologist

*“Our life is shaped by our mind;
we become what we think.”*

Attributed to Gautama Buddha

Objectives

- ▶ Explore the psychosocial and mental health challenges commonly experienced by an injured worker and their family after catastrophic injury
- ▶ Look at the existing psychosocial environment surrounding the injured worker and how this can influence the path of recovery
- ▶ Identify appropriate psychosocial interventions based on the injured worker's particular situation including their family and financial needs
- ▶ Highlight a more effective, whole person approach to catastrophic injury

Catastrophic injuries are life-changing

Spinal Cord
Injury

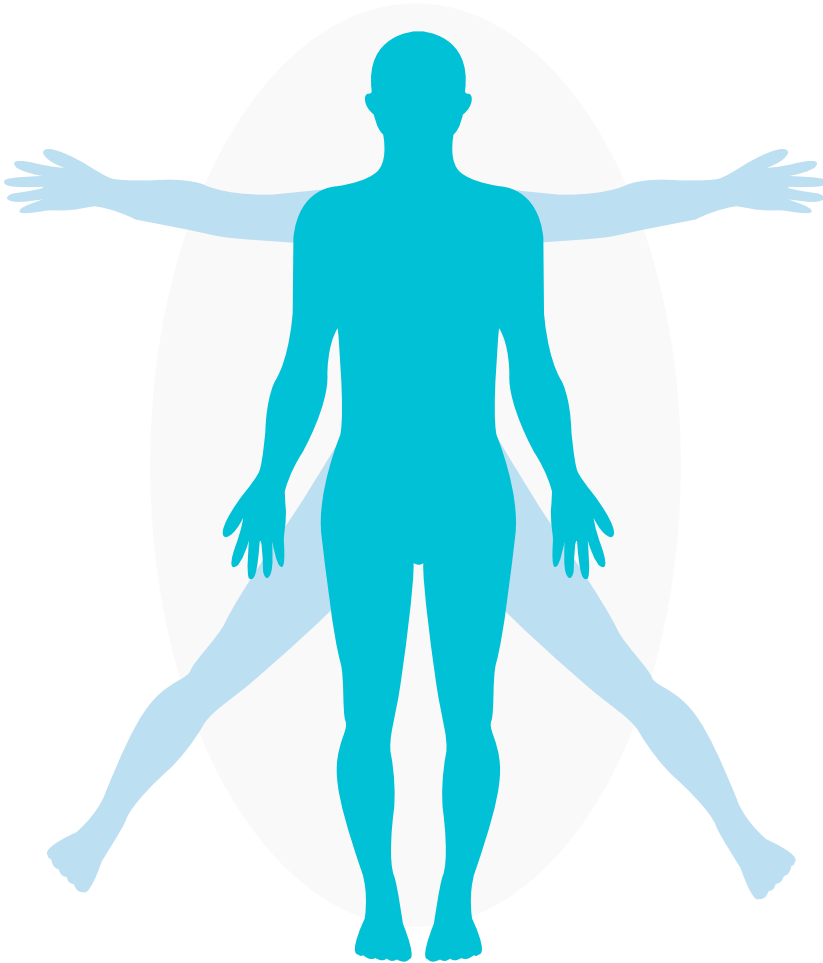
Traumatic
Brain Injury

Multiple
Trauma

Severe Burns

Amputation

Catastrophic injuries affect the whole person



High medical complexity

- ▶ High risk for mortality/death
- ▶ High rate of medical complications
- ▶ Extensive medical treatment
- ▶ Ongoing medical issues

Alteration of body

- ▶ Physical/functional impairments
- ▶ Cognitive impairments
- ▶ Change in body image
- ▶ Emotional/psychological effects

Change in lifestyle

- ▶ Sudden lifestyle change (catastrophe)
- ▶ Sudden change in independence, autotomy
- ▶ Altered family and social dynamics
- ▶ Need to mourn, accept, adapt, change

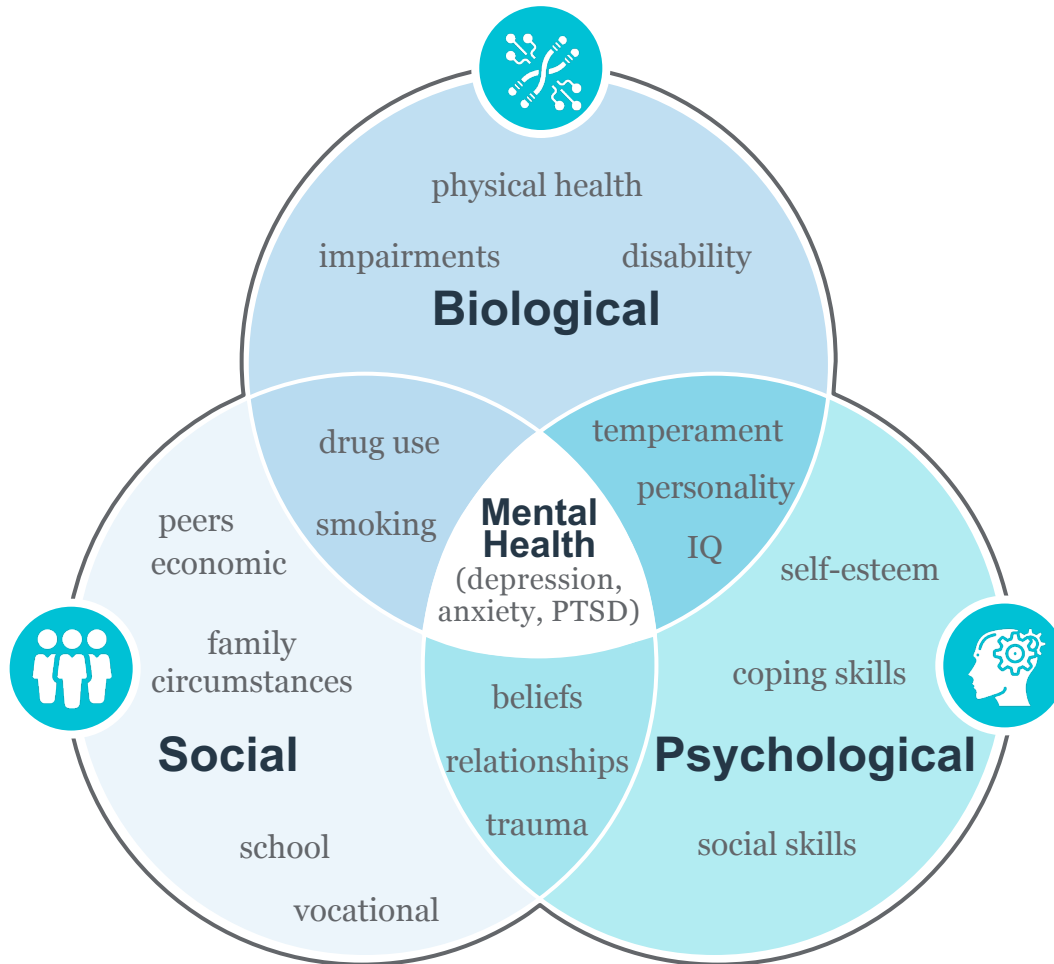
Psychosocial issues can lead to poor outcome

Survey of claims professionals reveals agreement that these factors lead to delayed recovery

Answer	Overall Rank	Mean
Psychosocial / co-morbidities	1	4.08
Lack of RTW option / accommodation	2	4.64
Litigation	3	4.79
Employee / employer relationship	4	5.04
Late injury / claim reporting	5	5.20
Proactive / timely communication with stakeholders (i.e. employee, employer, providers)	6	5.57
Legalese statutory requirements / communication	7	5.63
Employee doesn't understand the workers' comp system	8	5.81
Jurisdiction / geographic differences	9	6.74
Access to care	10	7.50

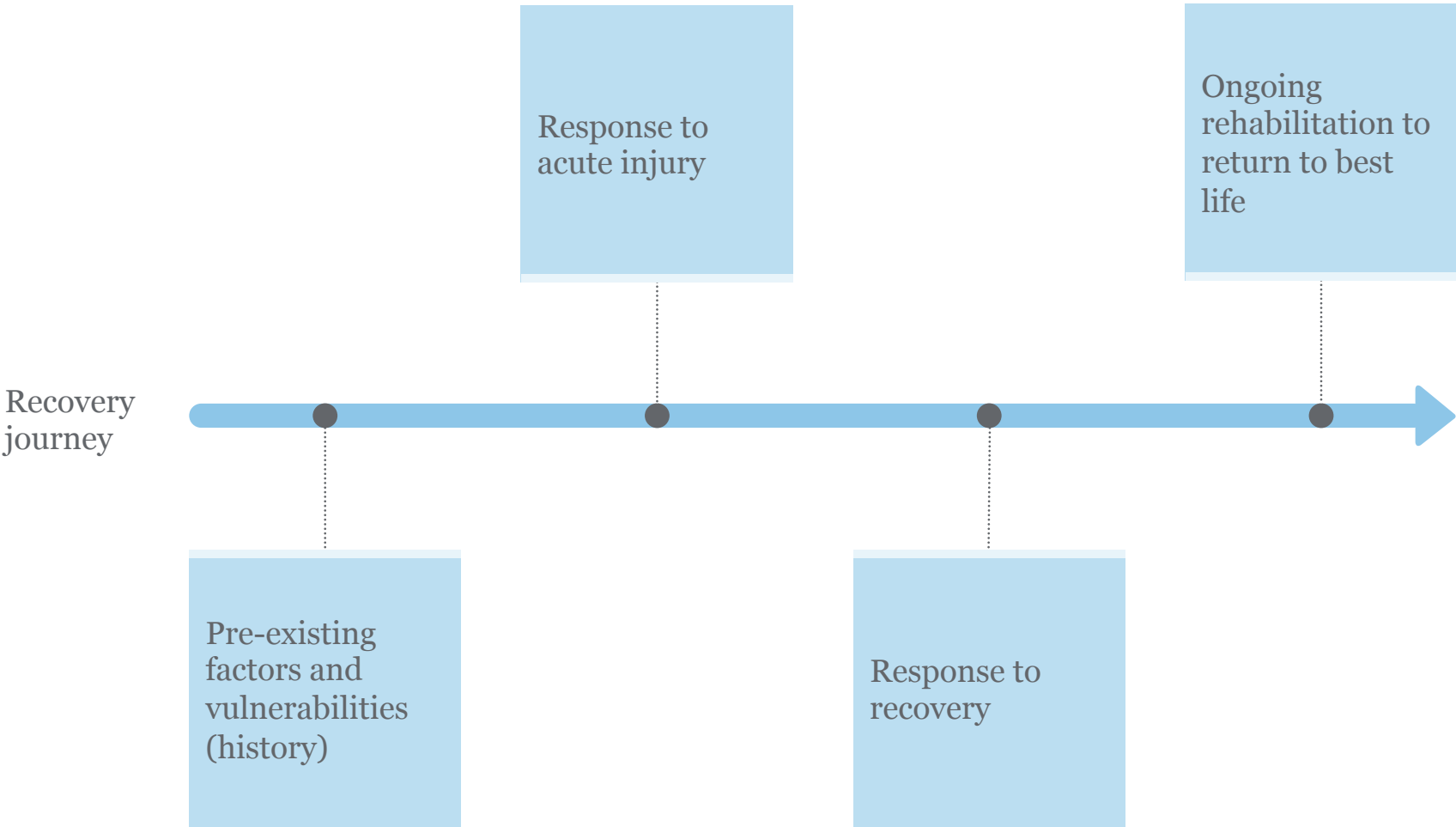
Source: 2016 Workers' Compensation Benchmarking Study; Denise Zoe Algire for Rising Medical Solutions

Biopsychosocial model of mental health



Source: Adapted from https://www.physio-pedia.com/Biopsychosocial_Model

Psychosocial responses affect all stages of recovery



Pre-existing Factors

Prevalence of mental health conditions



24.8 %

of general population with mental health condition

5.8%

with **severe** mental health condition

Source: Bagalman & Cornell. Congressional Research Service (CRS) Report to Congress November 2016

Psychosocial impact in catastrophic injuries

- ▶ **SCI:** 52% of SCI-injured people are high school graduates at the time of injury, 11% have college education or higher. 51% are single.¹
- ▶ **TBI:** Up to two-thirds of people with TBI have a history of alcohol abuse or risky drinking. Between 30-50% of people with TBI were injured while they were drunk and about one-third were under the influence of other drugs.²
- ▶ **Severe Burns:** It is estimated that one-third of burn patients suffer from physical or psychiatric disorders or alcohol addiction before the injury.³
- ▶ **Amputation:** Unmarried (single) amputation patients and patients who had no social support have high levels of anxiety and depression.⁴
- ▶ **Multiple Trauma:** Depression 1 month post-injury is an important predictor of recovery.⁵

1. 2016 SCI Data Sheet; National spinal cord injury statistical center

2. <https://mskctc.org/tbi/factsheets/Alcohol-Use-After-Traumatic-Brain-Injury#fsmenu>

3. Gilboa D. Long-term psychosocial adjustment after burn injury. *Burns* 2001; 27: 335-341.

4. Hawamdeh ZM, Othman YS, Ibrahim AI. Assessment of anxiety and depression after lower limb amputation in Jordanian patients. *Neuropsychiatric Disease and treatment*. 2008; 4(3): 627

5. The impact of psychological factors on recovery from injury: a multicentre cohort study [Blerina Kellezi, C. Coupland, R. Morriss, K. Beckett, S. Joseph, J. Barnes, N. Christie, J. Slaney, and D. Kendrick](#)

Predictors of acute injury progressing to chronic pain



- ▶ Filing a WC claim¹
- ▶ Substantial pain disability²
- ▶ Catastrophic behavior, high pain intensity¹
- ▶ Litigation¹
- ▶ Chronic opioid use

1. Compensation and chronic pain; Teasell RW., Journal; Clin J Pain. 2001 Dec;17(4, Suppl):S46-64

2. Early Predictors of Chronic Work Disability, A Prospective, Population-Based Study of Workers, With Back Injuries

Impact of psychosocial risk factors on catastrophic cases

- ▶ Increase medical costs
- ▶ Increase 1-year hospital readmission rate
- ▶ Decrease return-to-work rates
- ▶ The effect increases with the number of risk factors

	Medical cost	1-yr readmission rate	Return to work
1 PSB	10%	0%	-1%
2-3 PSB	20%	21%	-8%
4-5 PSB	48%	36%	-29%
6+ PSB	58%	50%	-40%

Source: Paradigm

How Do Psychosocial Issues Delay Recovery?

Beliefs and behaviors



Cognitive distortions

- ▶ Fear avoidance
- ▶ Catastrophizing
- ▶ External locus of control
- ▶ Sense of injustices
- ▶ All or nothing thinking
- ▶ Jumping to conclusions
- ▶ Over generalization



Illness behaviors

- ▶ Impaired motivation
- ▶ Suboptimal decision-making
- ▶ Unrealistic expectations for treatment recovery
- ▶ Unrealistic perception of handicap
- ▶ Suboptimal compliance
- ▶ Suboptimal adaptation to disability

If you only have a hammer, everything is a nail

Biomedical model

Constant search for a cure or new diagnosis

Every symptom should be treated

Medical-intervention focused

Biopsychosocial model

Symptoms are managed in the context of beliefs, fears, self-limitation, behaviors, secondary gains and losses

Persisting symptoms may have a biological component, but other factors may be more impactful

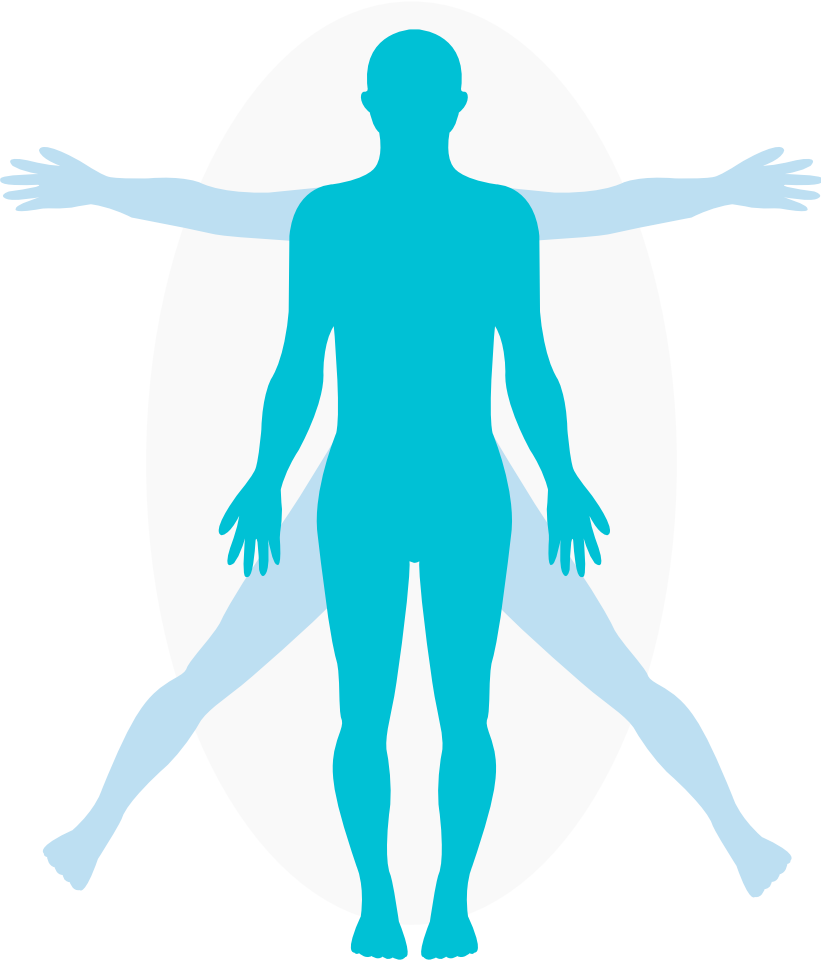
Rehabilitation focus

VS

How to Approach Catastrophic Injury in a More Effective, Holistic Way

What are the resources and how can you
use them?

Treating the whole person



High medical complexity

Alteration of body

Change in lifestyle



An array of possible interventions

Medications

Diet and exercise

Psychoeducation

- ▶ CBT
- ▶ Neuropsychology
- ▶ Mindfulness-based stress reduction

Trauma-informed psychotherapy

- ▶ Somatic experiencing
- ▶ Sensorimotor therapy
- ▶ EMDR

Integrative

- ▶ Biofeedback
- ▶ Mindfulness
- ▶ Meditation
- ▶ Hypnosis
- ▶ Neuro feedback
- ▶ Yoga
- ▶ Tai Chi
- ▶ Acupuncture

Physical modalities

- ▶ Craniosacral PT
- ▶ McKenzie PT
- ▶ Feldenkrais PT
- ▶ Graded motor imagery
- ▶ Mirror box

Mr. P's story

Case summary

- ▶ 54 year old male taxi driver s/p MVA 2/2018
- ▶ **Pre-injury history** of tenuous living situation, poor diabetes control, obesity, alcohol abuse, poly substance abuse
- ▶ **Medical complexity:** left wrist fracture, bilateral femur fractures, left open tib/fib and severe crushed ankle fractures, as well as right closed tib/fib fracture, Osteomyelitis, CRPS
- ▶ **Alteration in body:** required left AKA, phantom limb pain, worsened obesity, chronic pain
- ▶ **Alteration in lifestyle:** living in SNF, homeless, no social supports, not open to making changes

Interventions

- ▶ Inpatient opioid detoxification
- ▶ Mirror box therapy for phantom limb pain
- ▶ Diabetic control
- ▶ Weight management
- ▶ Prosthetics expertise
- ▶ Collaboration on long-term living supports

Mr. A's story

Case summary

- ▶ 23 year-old pool maintenance employee; chlorine explosion with multiple burns 5/2015; prior poly-substance abuse
- ▶ **Medical complexity:** 27% burns, 25% full thickness: facial burns, hand and arm contractures; 10 surgeries
- ▶ **Alteration in body:** altered dexterity but eventually independent
- ▶ **Alteration in lifestyle:** major issues with illegal substances, problematic family dynamics, PTSD

Interventions

- ▶ CBT/PTSD
- ▶ Health and behavior codes
- ▶ Opioid weaning
- ▶ Involve family when needed
- ▶ Establish clear goals, monitor and intervene
- ▶ Knowledgeable providers for injury diagnosis
- ▶ Education

Mr. L's story

Case summary

- ▶ 32 year old man who worked as an acrobat had a fall off a trampoline in July 2016; pre-injury poly-substance abuse
- ▶ **Medical complexity:** Right wrist fracture, ORIF, osteomyelitis, chronic pain, below elbow amputation
- ▶ **Alteration in body:** amputation, CRPS, depression, opioid use disorder
- ▶ **Alteration in lifestyle:** lack of social supports, family issues regarding drugs

Interventions

- ▶ Inpatient detox/functional restoration program
- ▶ Residential placement in sober living
- ▶ Vocational exploration/job coach
- ▶ Appropriate prosthetics for ADL and vocational pursuits

Ways to use biopsychosocial approach

Humanize communication

Assist with process

Clarify expectations

Harmonize contradictory messages

Be a liaison with non-compensable services

Use UR and Independent Medical Exams judiciously

Incorporate whole injured worker into return-to-work plan and workplace integration

Source: Dr. Renée-Louise Franche, University of British Columbia, Simon Fraser University, Institute for Work & Health

Resources for caring for the whole person

- ▶ Psychological Factors in Delayed and Failed Recovery and Unnecessary Disability, Parts I & II, AMA Guides Newsletter May/June 2019 & July/August 2019
- ▶ American College of Occupational and Environmental Medicine Occupational Medicine Practice Guidelines
- ▶ Official Disability Guidelines (ODG)

For specific guidelines, see [Cognitive therapy for amputation](#); [Cognitive therapy for depression](#); [Cognitive therapy for opioid dependence](#); [Cognitive therapy for panic disorder](#); [Cognitive therapy for PTSD](#); [Cognitive therapy for general stress](#); [Cognitive behavioral stress management \(CBSM\) to reduce injury and illness](#); [Dialectical behavior therapy](#); [Exposure therapy \(ET\)](#); [Eye movement desensitization & reprocessing \(EMDR\)](#); [Hypnosis](#); [Imagery rehearsal therapy \(IRT\)](#); [Insomnia treatment](#); [Mind/body interventions \(for stress relief\)](#); [Psychodynamic psychotherapy](#); [Psychological debriefing \(for preventing post-traumatic stress disorder\)](#); [Psychological evaluations](#); [Psychological evaluations, IDDS & SCS \(intrathecal drug delivery systems & spinal cord stimulators\)](#); [Psychosocial /pharmacological treatments \(for deliberate self-harm\)](#); [Psychosocial adjunctive methods \(for PTSD\)](#); [Psychotherapy for MDD \(major depressive disorder\)](#); [PTSD psychotherapy interventions](#); [Stress management, behavioral/cognitive \(interventions\)](#); [Telephone CBT \(cognitive behavioral therapy\)](#); [Computer-assisted cognitive therapy](#).

Q&A and CCMC Credit

How to Receive CCMC Credit

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<https://www.surveymonkey.com/r/treatwholeperson>
- ▶ Complete CCMC survey
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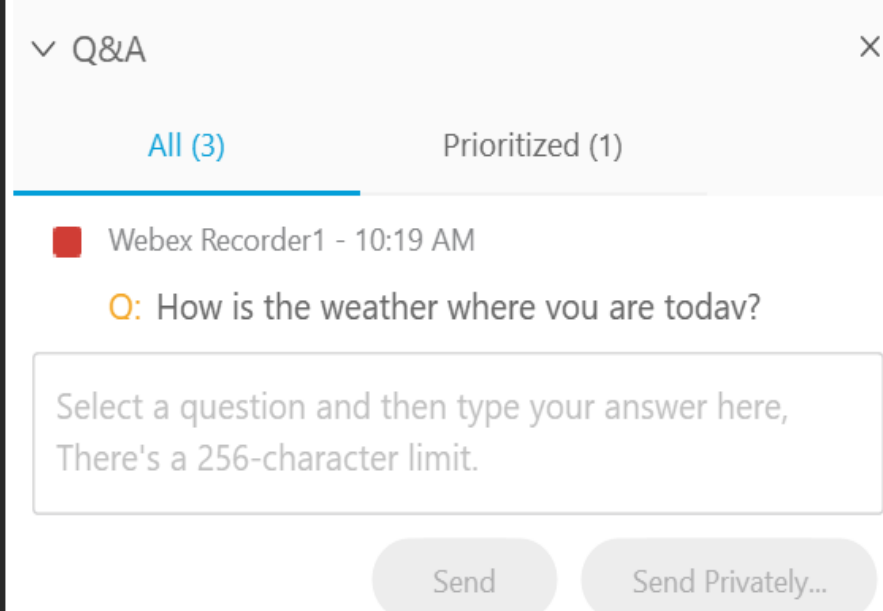
Paradigm Insights: <https://www.paradigmcorp.com/insights/>

The screenshot displays the top portion of the Paradigm Insights website. At the top, a navigation bar includes links for 'About', 'Resources', 'Careers', and 'Contact', followed by a search icon and a 'Refer a case' button. Below this, three main service areas are listed: 'Catastrophic Care Management', 'Complex Care Solutions', and 'Specialty Networks'. The main content area is titled 'Insights' and features a search bar with the placeholder text 'Type search terms here...'. Two featured articles are shown: the first is a 'Paradigm Spotlight Series' featuring a portrait of Hassan Moinzadeh, MD, PhD, discussing Paradigm's whole person approach to treating catastrophic injuries, dated 09/30/2019; the second is an announcement that Paradigm has launched a new website with a more intuitive user experience, dated under 'PARADIGM NEWS'.

How to Submit Questions

- The Q&A panel is at the lower right of your screen
- Type a question into lower section of Q&A panel
- Select “Ask All Panelists” and click Send

**A link to replay will be emailed.
Answers to questions we don't
have time to address on the
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individually.**



The screenshot shows a Q&A panel interface. At the top, there is a header with a dropdown arrow and the text "Q&A", and a close button (X) on the right. Below the header, there are two tabs: "All (3)" which is selected and highlighted with a blue underline, and "Prioritized (1)". The main content area shows a question submitted by "Webex Recorder1 - 10:19 AM". The question text is "Q: How is the weather where you are today?". Below the question is a text input field with a placeholder that reads "Select a question and then type your answer here, There's a 256-character limit." At the bottom of the panel, there are two buttons: "Send" and "Send Privately...".

Thank you.