Cumulative Trauma

Medicine FOR Business AND Industry

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Why Occupational Medicine in Urgent Care

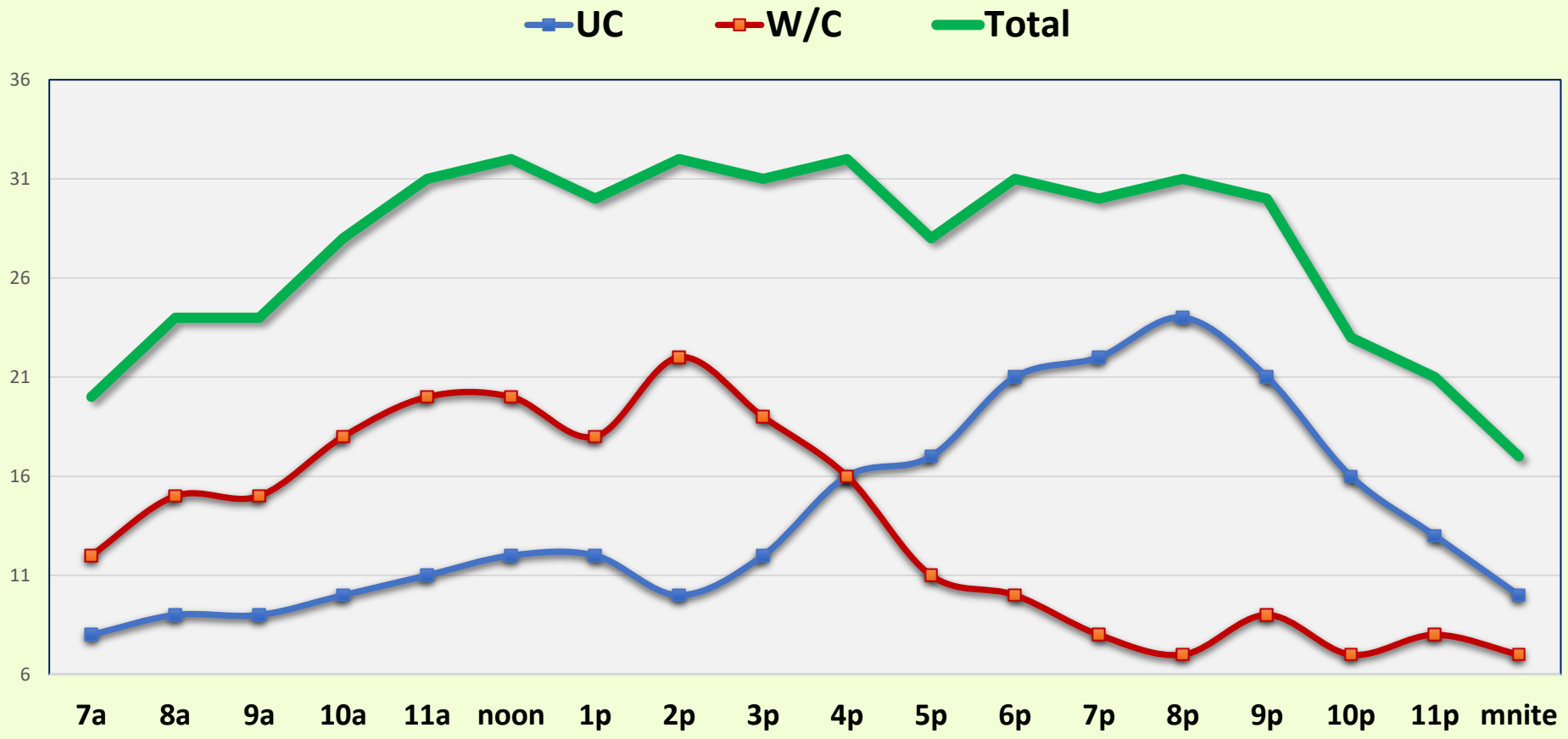
Occupational Medicine

- **Work Comp**
  - Reportable
  - Non-Reportable
  - Physical Therapy
- **Physical Exams**
  - Pre-Placement
  - Fit For Duty
  - Respirator Testing
  - DOT, FAA
  - Exec PE
- **Drug Testing**
  - Pre-Placement
  - Random
  - OSHA
  - Post Accident
  - For cause
- **Preventive Wellness**
  - Flu Shots
  - Ergonomics
  - Site Safety
  - On-Site Wellness
  - Travel Med

Value of a new Injury

Each New Work Comp Injury/Illness			
	Charges	Visits/ injury	Total
New Injury	$450		$450
Follow-up	$140	3.6	$504
PT	$92	3.1	$286
Medication	$85		$85
DME	$70		$70
Charges per Injury			$1,395

Clinic Census



Challenges OM in UC

- The Learning Curve
- Get/Grow a Champion
- EMR and Billing
- In CA – Must join MPNs – Barrier of entry
- Staff attitude toward companies

Cumulative Trauma in Occupational Medicine

The two types of injuries:

1. Injuries with an antecedent event
2. Injuries not preceded by a specific event

Cumulative Trauma

Different Terms for CT

- Repetitive Strain Injury (RSI)
- Cumulative Trauma Disorder (CTD)
- Repetitive Motion Disorder (RMD)
- Occupational Overuse Syndrome
- Regional Musculoskeletal Disorder (WHO)

Cumulative Trauma

Different Terms for CT

Or simply,

Pain that starts in the workplace without a specific antecedent incident, such as a fall

Cumulative Trauma

Why do we talk about CT

- Increasing frequency – expect to see in clinic
- Showing up in healthcare employees (like ours)
- Difficult to anticipate – but there are early signs
- Costly to resolve – high litigation rate → higher insurance premiums

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5/24

Most cumulative trauma claims in California involve litigation: Report

by Louise Esola

- **37.5% of all suits filed (56% in LA Basin)**
- **70% now involve an attorney (4x non-CT)**
- **80% Manufacturing & Food Services**
- **40% Post Termination (WCIRB)**

Cumulative Trauma

What do we mean by CT

Common def. CT **-**

Excessive wear and tear on tendons, muscles and sensitive nerve tissue caused by continuous use over an extended period of time.

California Labor Code 3208.1 defines **-**

A "cumulative" injury - occurring as repetitive mentally or physically traumatic activities, extending over a period of time, the combined effect of which causes any disability or need for medical treatment.

CT – Job Risk Factors

- Repetitive tasks
- Forceful compression
- Vibrating Equipment
- Sustained or awkward positions
- Decreased time for rest

CT – Individual Risk Factors

- Job dissatisfaction
- Conflict at the workplace
- General Health
- Level of Fitness
- High BMI
- Psychological / other stress

Cumulative Trauma – RSI 1 v RSI 2

"There are almost as many Repetitive Strain Injuries as there are movable parts of the human body."

RSI 1 vs RSI 2

RSI Type 1 vs. RSI Type2

RSI Type 1	RSI Type 2
Localized	Diffuse
Specific pathology	Non-specific pathology
Months/years to develop	Any time period
Specific tx	Non-specific treatment
Ex: CTS, Epicondylitis, Tendonitis	Ex: Any body part

Clinical Evaluation:

Acute Injury

vs.

Cumulative Trauma

	Acute Injury	RSI
Incidence	Stable	Increasing frequency
Onset	Seconds	Months/years
Physical finding	Often Yes	Usually No
Resolution	Tissue Healing	Change job or process
When MMI	Return to old job	Change job or process

Cumulative Trauma

Upper Extremity

Case Report – RS1

CC: R Elbow pain for 4 weeks

History: A 51 y.o. RHD construction worker/roofer presented to the Occ Health Clinic with 4 weeks of increasing pain in the lateral right elbow. Pain on driving nails with a hammer screwdriver, etc

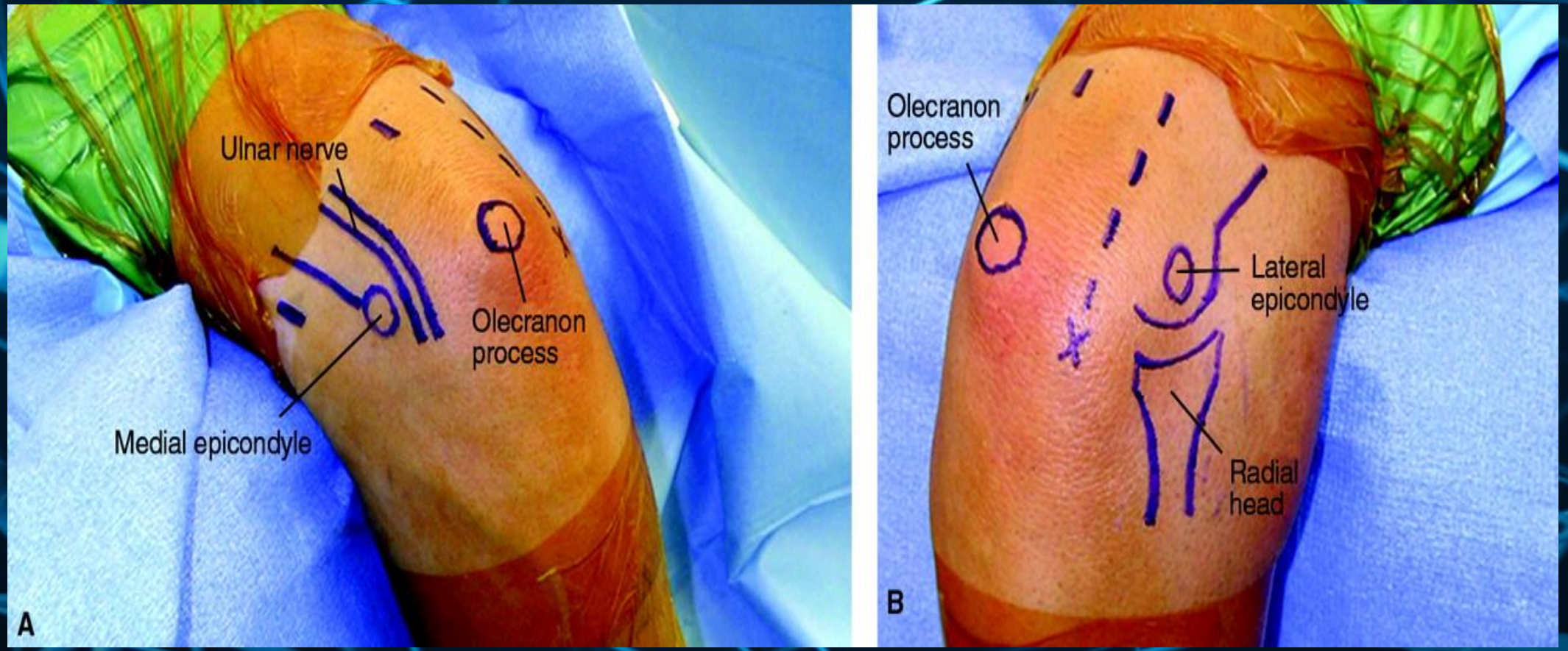
Work History: Roofer, employed FT by ABC Inc for 12 years. No previous elbow injury.

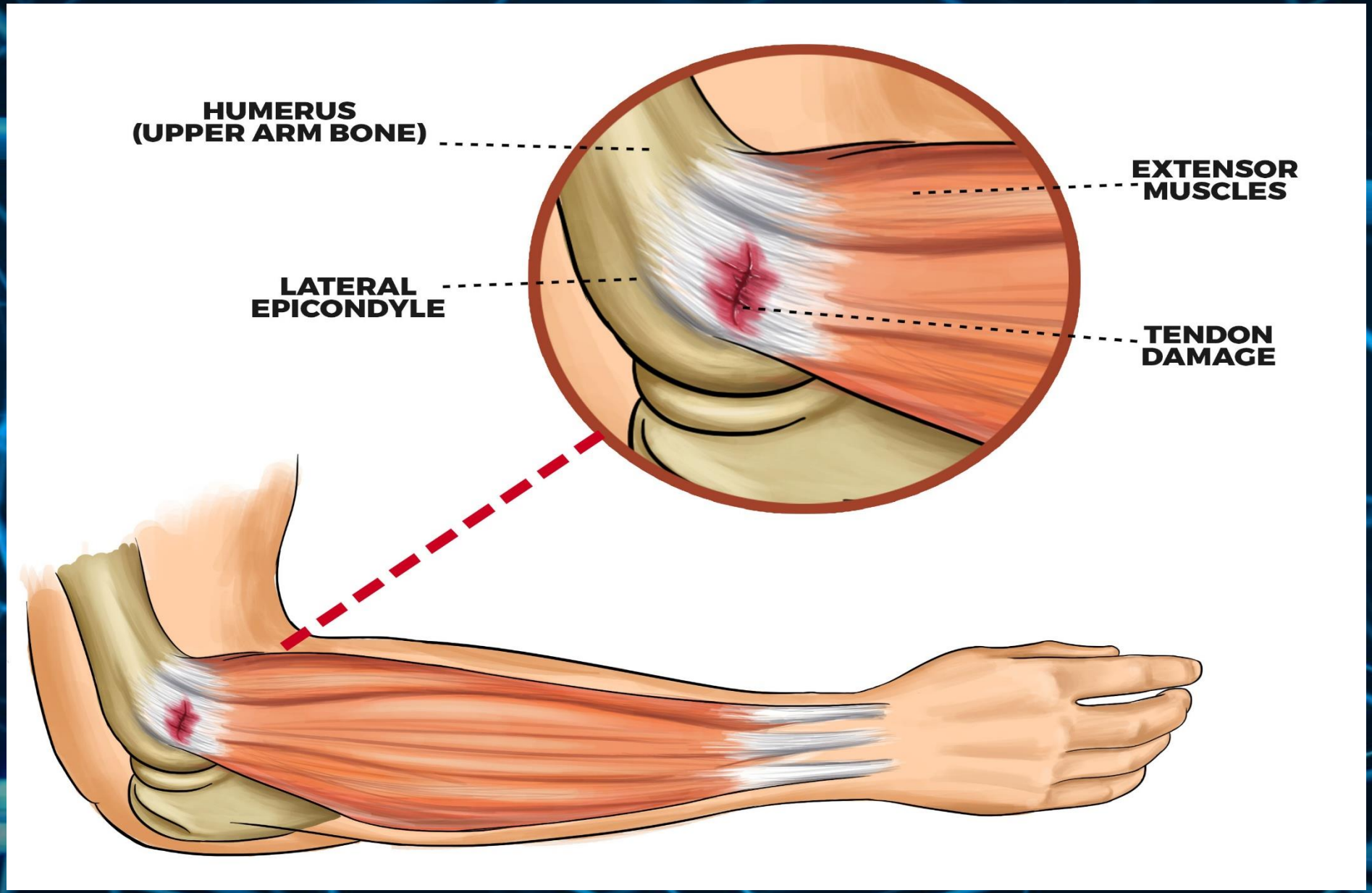
Exam: Point tenderness of R elbow at the lateral epicondyle

Epicondylitis

Medial

Lateral




HUMERUS
(UPPER ARM BONE)
EXTENSOR
MUSCLES
LATERAL
EPICONDYLE
TENDON
DAMAGE

UCC Treatment Epicondylitis

- Ice
- Rest
- NSAID OTC
- Elbow brace vs. Splint
- Physical Therapy
- PCP vs. Specialist

Lateral Epicondylitis

Stages and Treatment of LET

- **Reactive tendinopathy -** NSAID, PT, Ice, splint
- **Degenerative tendinopathy -** steroid injection
- **Lateral collateral ligament tear –** refer Ortho

Lateral Epicondylitis

Treatment	
Modified Duty	I +
Oral Steroid	B +
Steroid injection	A +
Wrist Cock-up splint	I +
Physical therapy	C +
EMG's	C +
PRP/Autologous/Acute	I -
PRP/Autologous/Chronic	C +
Surgery if indicated	C +

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Case Report – RSI 2

CC: Bilateral elbow and shoulder pain from cumulative trauma.

History: A 51 y.o. RHD construction worker presented to the Clinic with 2 weeks of increasing pain in the elbows, bilateral shoulders, and wrist. He states he has been carrying heavy loads repeatedly all day without enough rest.

Work History: Construction Worker, employed FT by ABC Inc for 6 months. No previous injury.

Exam: Diffuse tenderness to light touch to bilateral upper extremities from the shoulder to wrists/hands.

Cumulative Trauma – RSI 2

Presentation of CT- RSI 2

- Diffuse, poorly localized pain
- Difficult to establish a Date of Injury
- Multiple body parts involved
- Subjective complaints > Objective findings

Treatment:

Cumulative Trauma T2

ACOEM Guidelines - DX

- Group of disorders without a specific diagnosis
- Symptoms disproportionate to the clinical findings
- Duration is variable
- Physical examination is usually normal
- DX of Exclusion - CT T2 is what's left when no specific diagnosis can be made.
- In the absence of a specific diagnosis, <u>significant disability is unlikely</u>

Provider Treatment of CT

Determine CAUSATION

- Careful Medical History
- Occupational History – LOE, job duties
- Mechanism of Injury - Specific Activity

ACOEM Guidelines - TX

- Prolonged time away from work makes recovery less likely
- Response to treatment - intermittent and inconsistent
- GL suggest temporary restrictions until a more specific diagnosis may be determined
- Avoid passive modalities in PT

Provider Treatment of CT

- Set patient expectations early
- Adherence to ACOEM – Conservative treatment protocol
- Avoid over-testing - MRIs, CTs
- Avoid over-treatment – acupuncture, specialists
- Do not chase pain
- Goal - Functional recovery → MMI & Discharge

Cumulative Trauma - ICD-10

ICD - 10	CC: Patient claims repetitive trauma to R upper Extremity
	This:
S46.911A	Strain of muscle, fascia, tendon at R shoulder & upper arm
S56.911A	Strain of unspecified muscles, fascia and tendons at right forearm level
	Not this:
M70.919	Unspecified soft tissue disorder related to overuse and pressure, shoulder
M70.921	Unspecified soft tissue disorder related to overuse and pressure, R upper arm

Cumulative Trauma - Summary

- Many causes and predisposing factors
- Non-specific complaints and symptoms
- No clear physical findings
- No confirmatory tests
- No clear treatment

Some agreement on prevention

ID Cumulative Trauma

Coping behavior may be the first clue:

- Changing tools frequently
- Frequent stretching during work
- Trying new techniques/positions to do the same job
- Taking many mini-breaks
- Rubbing sore muscles frequently
- Frequent Absences
- Decreased productivity

Cumulative Trauma - Prevention

CDC Preventive Measures:

- **Engineering controls** - ergonomic workplace redesign
- **Administrative controls** - adjusting schedules and workloads
- **Modify individual factors** - employee exercise, diet, smoking
- **Combinations** of these approaches

Cumulative Trauma - Prevention

Employer Preventive Measures:

- Expand Job Descriptions
- Rotate duties
- Ergonomics Evaluation
- Job/employment Satisfaction
- Look for patterns of injuries

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Post Employment CT Claims

Injury *def.* – (CA WC Physicians Guide, CA Labor Code 3208, 5411, 5412)

- **Disability, AND**
- **Need for medical treatment**

Disability *def.*

- **Temporary or permanent change in work status**
- **Partial or total**
- **Work restrictions**
- **? DME**

Post Employment CT Claims

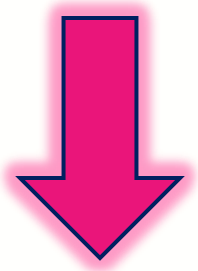
Why are post injury CT claims especially difficult

1. Rarely a specific date of injury
2. No injury reported during employment
3. No Medical was sought
4. No disability occurred

Median Time (Days) from Reported Injury Date to First Medical Treatment

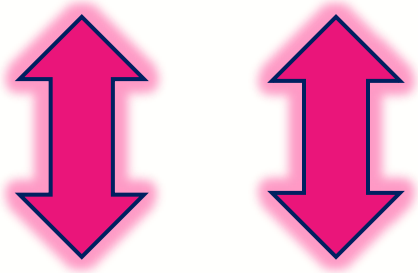
Top Medical Diagnosis	CT Indemnity Claims	Non-CT Indemnity Claims	Difference between CT and non-CT Claims
Soft tissue disorders	57	5	52
Dislocation and sprain	48	2	46
Carpal Tunnel Syndrome (CTS)	27	N/A	N/A
Mental & behavioral disorders	62	19	43
Multiple injuries incl. CTS	8	N/A	N/A
Multiple injuries - Soft tissue disorders & dislocation and sprain	25	2	23

Cumulative Trauma



Applicant Attorney

Cumulative Trauma



Applicant Attorney


2B
Yankees
GEORGE ZEBER

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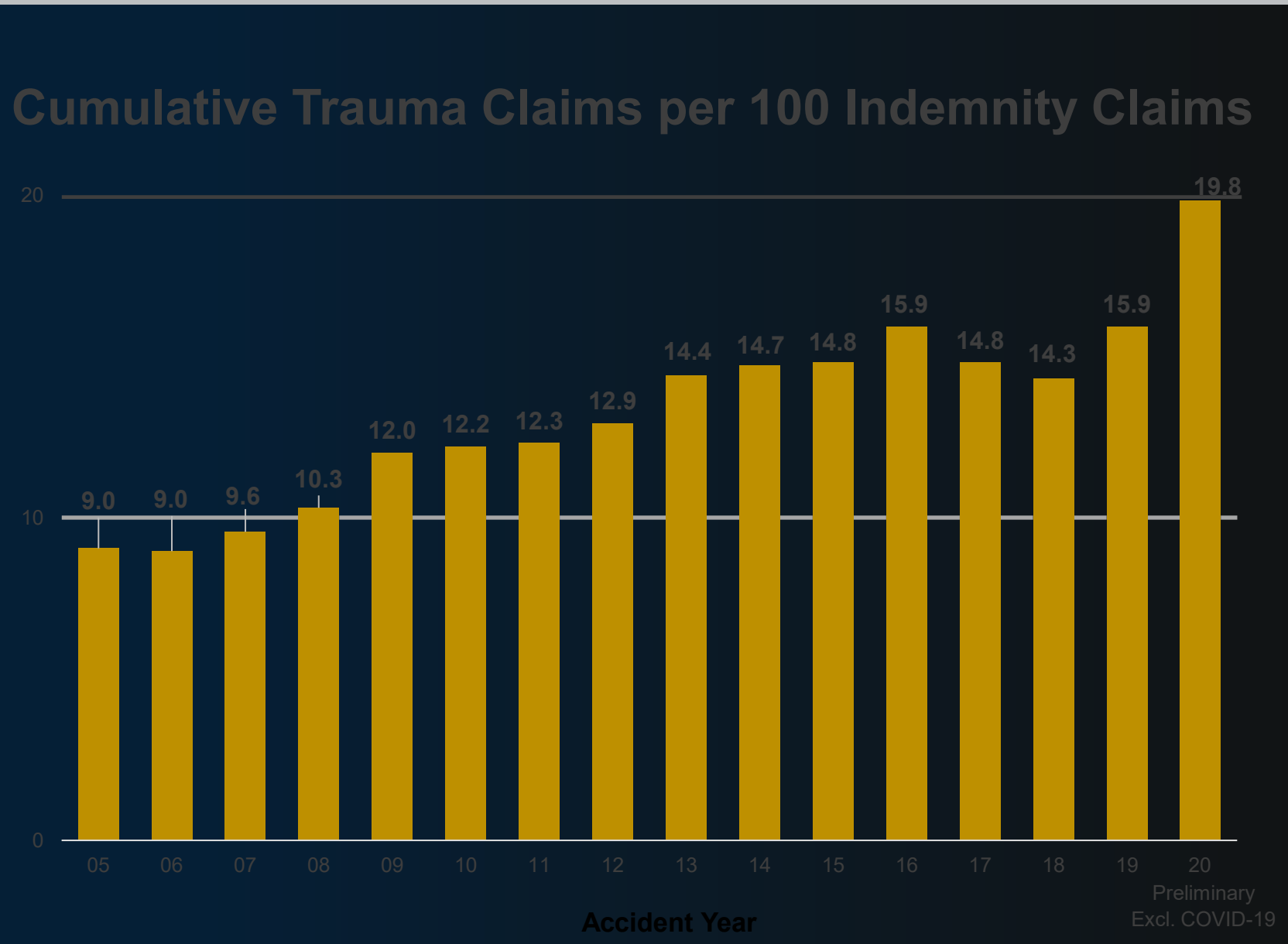
Chart 8

Cumulative trauma (CT) claim rates increased through 2016 to be 80% above the 2005 level.

CT claim rates were relatively consistent from 2016 through 2019.

Preliminary data shows a sharp increase in CT claim rates in 2020, likely driven by shifts in claim patterns during the pandemic period.

In particular, the 2020 increase in CT claim rates is largest in industry sectors that had the largest job losses in 2020.



Cumulative Trauma

- CT claims doubled over the past 10 years
- Many involve multiple body parts
- 53% higher cost than accident claims/“specific” injury
- 39% filed post-termination
- Attorney representation 4X other claims
- 56% CA cases in the LA Basin

WCIRB 2018-22

CT to get around Statute of Limitation