

GENERAL DYNAMICS
Bath Iron Works

Early Recognition of Chronic Conditions

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Chronic vs. Acute

Acute

comes on quickly and / or lasts a short time (1-3 mos.)
acute leukemia, acute appendicitis, acute resp. illness

Sub-acute

intermediate phase (3-6 mos.)

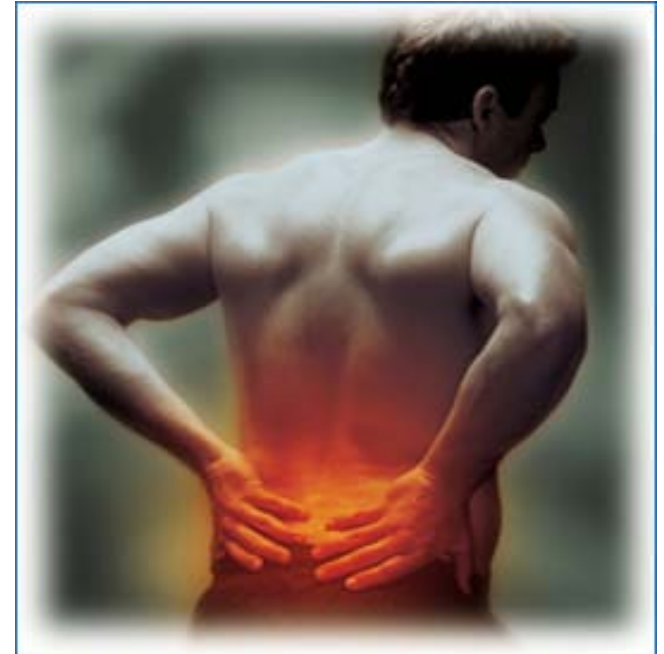
Chronic

6 months (or longer)
chronic pain, COPD, ulcerative colitis, Crohn's RA

Occ vs. Non-Occ Causation Analysis

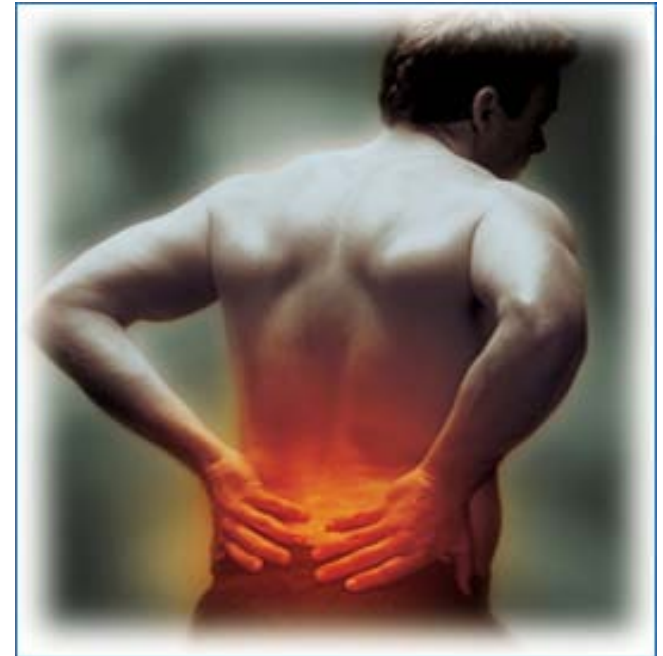
Occ conditions that become chronic (back pain)

Non-occ conditions that become compensable (RA with back pain)



Occ vs. Non-Occ Causation Analysis

Recurrence
Exacerbation
Aggravation

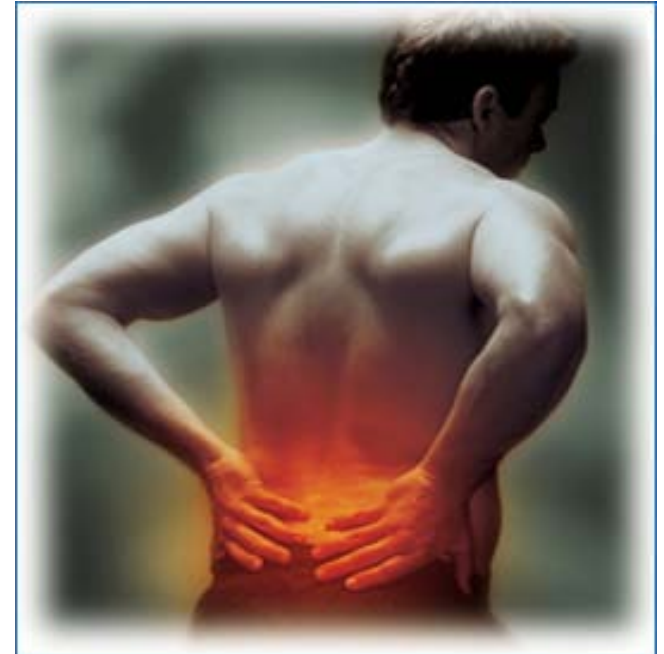


Occ vs. Non-Occ Causation Analysis

Recurrence

- Pre-existing condition (may be occ. or non-occ.)
- Reappearance of signs or symptoms with minimal or no provocation

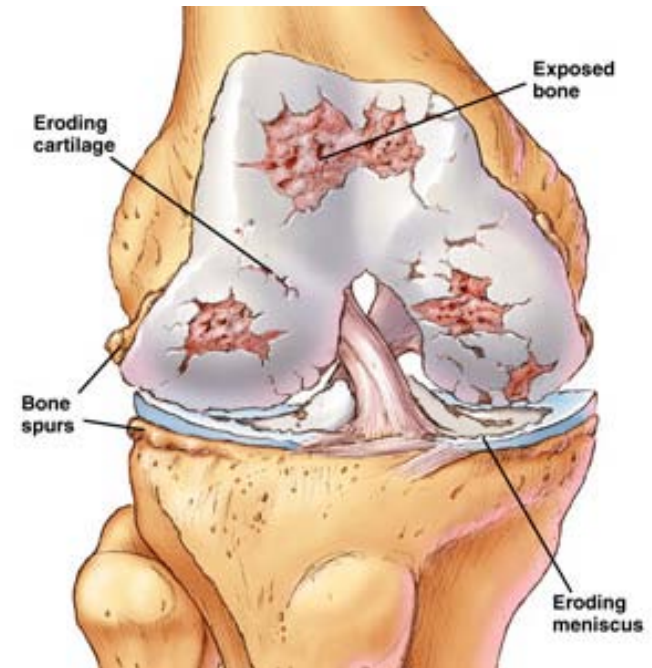
Ex: Radicular pain that develops after minimal effort in a patient with previously documented lumbar disc herniation



Occ vs. Non-Occ Causation Analysis

Exacerbation

- Transient worsening of a prior condition with the expectation that the situation will return to baseline.
- Acute trauma can be superimposed on prior occ. / non-occ. conditions.



Ex: DJD of knees exacerbated by repetitive kneeling

Occ vs. Non-Occ Causation Analysis

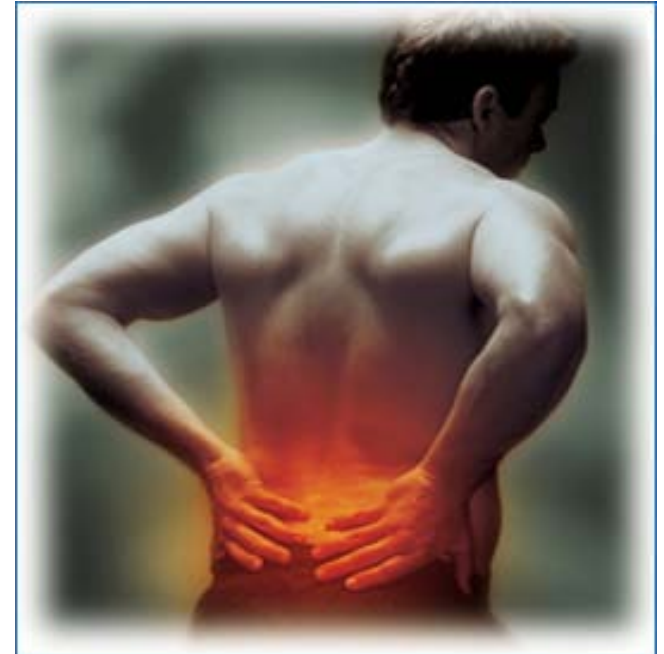
Aggravation

- New event that **permanently** worsens an existing condition
- **Permanent** alteration of underlying condition. Therefore, condition cannot be described as cured (CHRONIC)

Ex: DJD of knee superimposed with acute trauma causing a permanent change in gait. There is potential for future recurrences.

Occ vs. Non-Occ Causation Analysis

Medical goal: to return employee to base line regardless of causality



Early Recognition Through...

Early reporting

Aggressive and early treatment

Medical Surveillance

Early Reporting

- All BIW labor contracts require injury reporting
- Management educated re: injury inquiries at muster
- Management educated re: IIR investigations

Early Reporting

- Can't treat if you don't know about it
- Consequence:
Increase in recordable injuries



Aggressive and Early Treatment

- To avoid progression to chronic state
- Ex: Laceration that does not present for a week; develops infection that seeds to the bone.



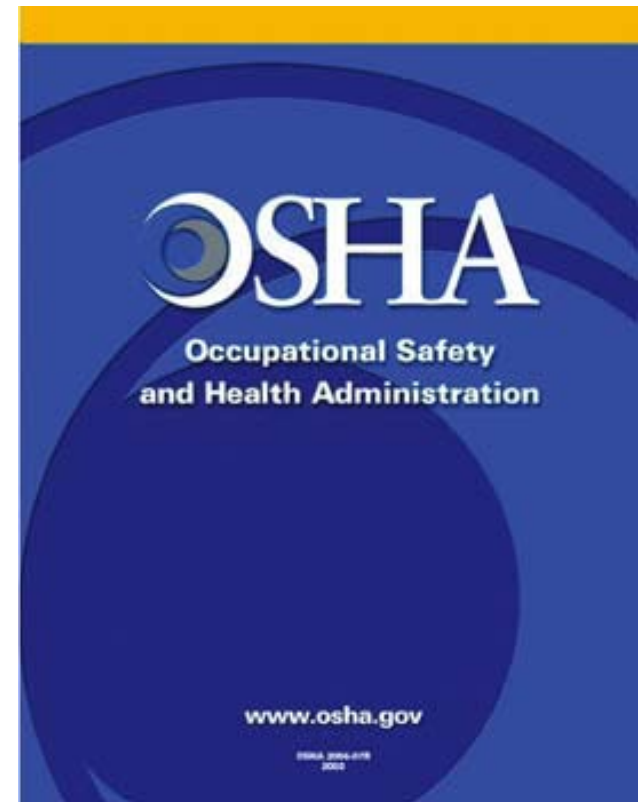
Medical Surveillance

Early detection:

Respirator

Hearing

HAVS



EXAMPLES

- Pulmonary
- Skin / Rash
- Musculoskeletal

Pulmonary

Subjective:

25 year welder with airway irritation x 5 mos. History of childhood asthma; not active

EE files statement of injury and alleges work relatedness

EE declines in-house treatment



Pulmonary

PCP diagnosis: Occupational Asthma

➤ Employee presents to BIW Medical and requests accommodation of limits.

PCP restrictions: “No Exposure to Fumes”



Pulmonary

Considerations:

- Treating PCP states condition is work-related but diagnosis based on employee's subjective complaint
- BIW MD communicates with PCP re: objective testing to support or refute a work association



Pulmonary - Discussion

Does condition exist?

Yes, known history of asthma

Is the condition work related?

Yes, employee cooperated and performed PFTs demonstrating a significant drop at end of shift

Do we have obligation to accommodate (legal issue)?

Yes, however “No fumes” may not be reasonable if you are a welder, but reasonable for an electrician.

Pulmonary - Discussion

What is the clinical endpoint?

When employee is back to baseline (note: Hx of asthma; exacerbation or aggravation?)

How does Medical Surveillance help with clinical endpoints under Workers Compensation?

Baseline data is individual. It is important to baseline employee at time of hire (periodic monitoring will ID conditions, i.e. new onset COPD in chronic smoker vs. isocyanate sensitivity).

Skin / Rash

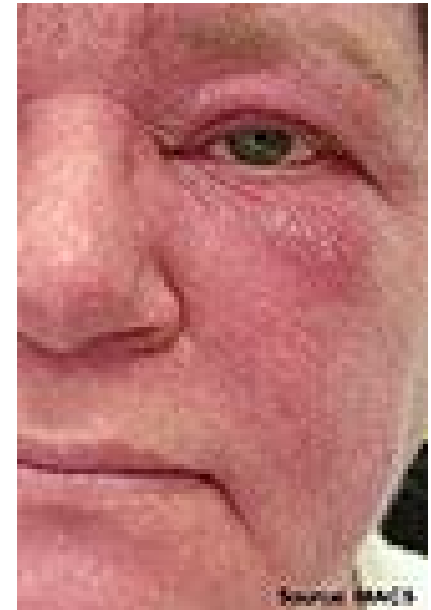
Subjective:

45 year old painter with history of psoriasis.

c/o itchy rash to hands, face, neck for two weeks.

Employee makes association to work but this must be validated

Employee questions whether the skin condition is epoxy-related.



Skin / Rash - Discussion

Objective:

Diffuse facial erythema with scaly edges.

Hands seriously involved, knuckles greater than palms



Skin / Rash - Discussion

Assessment:

Rash of unknown etiology, symptomatically treated

Plan:

Employee is restricted from working with epoxy until resolution of rash.

A controlled challenge test is performed by re-introducing employee to epoxy environment.

Recurrence of rash? Yes / No

Skin / Rash - Discussion

Therefore:

Not work-related vs. not epoxy-related

(consider other workplace chemical exposure agents, i.e. glue, solvents, etc.)

Skin / Rash - Discussion

Considerations:

Although employee claims reaction to a particular chemical, it is often something else being concurrently used that is causing the rash.

Consider patch testing. IH provides samples and allergist places controls.

This could still be a flare-up of psoriasis

Skin / Rash – Patch Test



Patch testing reveals sensitivity to aftershave.

Therefore, exacerbation of underlying psoriasis (non-occ)

Early detection and restriction to exposure prevents chronic dermatological condition

Back Pain

Subjective:

56 year old marine electrician
pulling large cable for two weeks
c/o gradual onset of back pain.

Considerations:

- Did EE report injury to FLS at muster?
- Is there a completed IIR?



Back Pain

Objective:

- difficulty changing positions;
stiffness
- c/o muscle spasms
- no radiation legs
- no numbness / tingling



Back Pain

Assessment: Acute mechanical low back pain

Plan:

Conservative Treatment

- physical therapy
- NSAIDs
- restrictions
- re-assess



Back Pain

3 months later:

S: c/o leg weakness with radiating pain

O: foot drop (weak dorsi-flexion)

A: Low back pain with L-5 radiculopathy

Plan: Loss of function is emergent

- Early imaging (MRI)
- Early referral to neurosurgeon



Back Pain

Mechanical low back pain can be intermittent chronic

LBP with loss of function (neurological deficit) can result in chronic and permanent impairment

Back Pain

Ex: EE with leg weakness is not seen for a month due to schedule and travel.

1. Undergoes discectomy but has permanent loss of foot dorsi-flexion requiring foot brace

2. Undergoes emergent surgery with improvement in function

Summary

- Early reporting
- Early diagnosis
- Early detection / medical surveillance
- Education

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