

Preventing
Fatal & Life Changing
Injury Events

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*Is about changing
the way we think about Risk,
and how we manage it.*





- Fatal & Life Changing Injuries (F&LC) impact lives forever
- Pro-actively focus on:
 - The precursors which cause F&LC events
 - Management systems to control them
- The Past Does Not Always Predict The Future



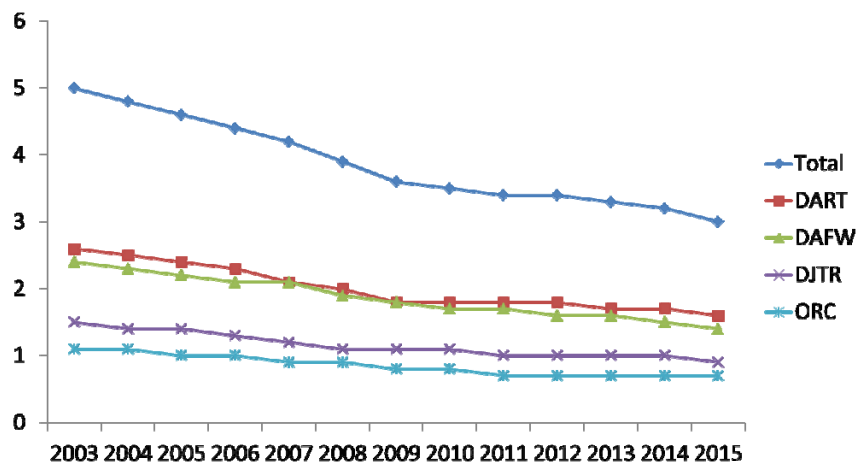
*The Next 3 Seconds:
Protects Your Life,
Your Loved Ones and
Your Livelihood[®]*



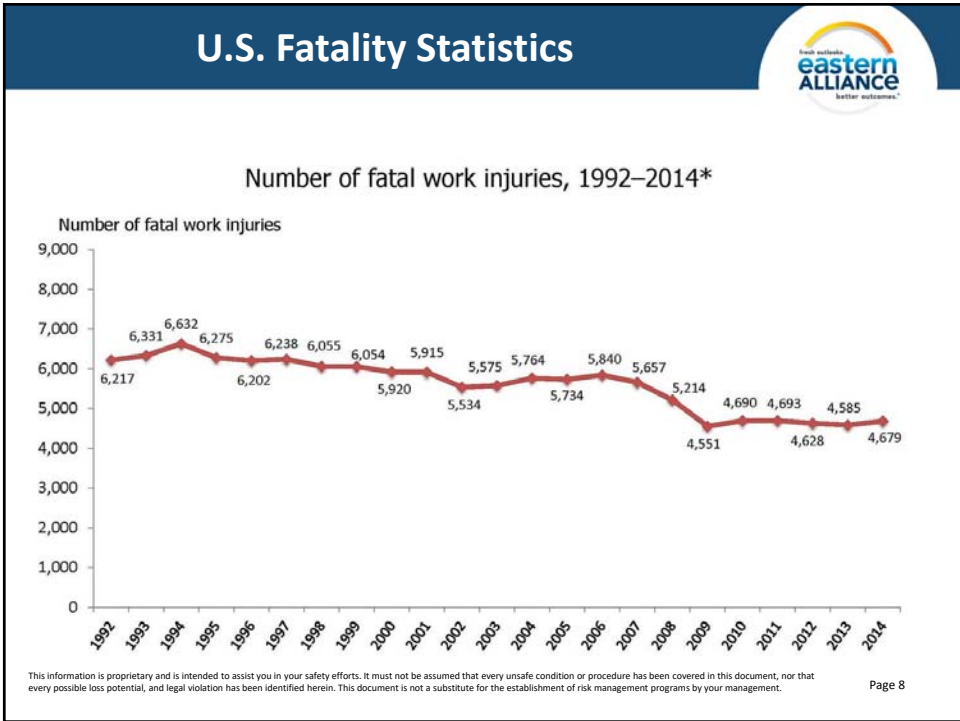
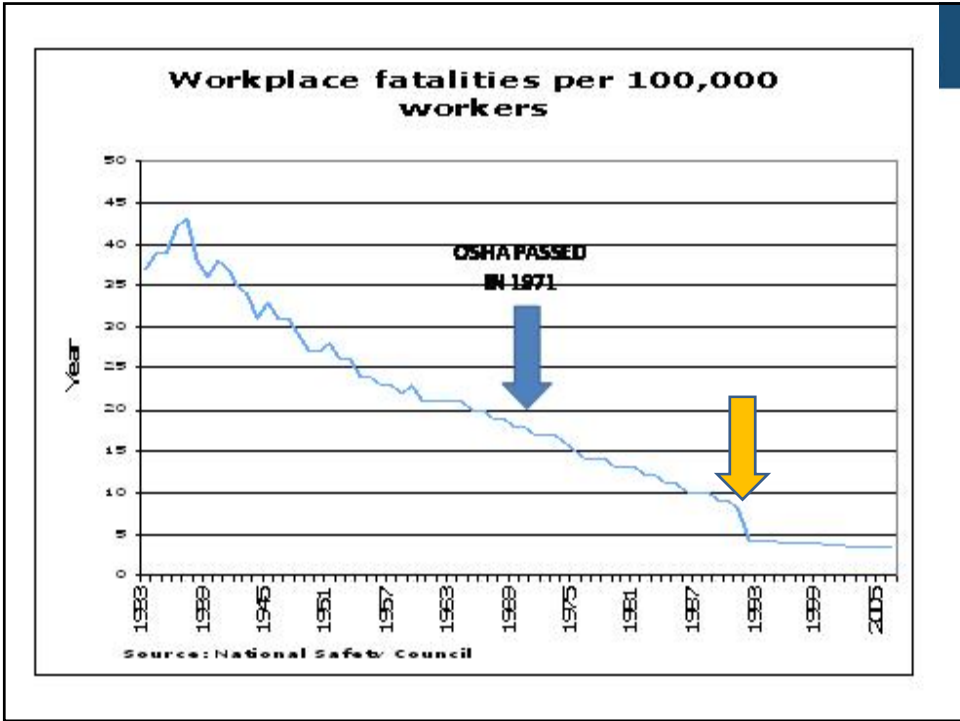
The Numbers



Non-Fatal Injury Rates



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Does Frequency Lead To Severity?



Heinrich's Accident Pyramid – *Industrial Accident Prevention, 1931*



Not always predictive when it comes to F&LC events.
- *The past does not always predict the future.*

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Perception of Risk



What is your Perception of Risk?



Understand and actively manage risks

See the relationship between processes and risk

Investigations place blame

Accidents are inevitable the "Cost of doing business"

Nothing really bad has ever happened – so why worry?

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How would you rate your Safety Climate?



Category	5	4	3	2	1
Management Commitment	Management actively leads process	Safety is an agenda item for management	Policy & procedure unique to company	Off the shelf programs	No written programs or materials
Safety Mgmt. System	Full program with staff	Assigned person >50% of their job	Assigned person <25% of their job	Rely on outside consultant only	Nothing in place
Safety Innovation	Zero accident focus	Working to improve safety process	Average Safety Committee activity	Focus on compliance issues only	View safety as an added operating cost
Perception of Risk	Understand and manage risks	See relationship of risk to process	Investigations place blame on employees	See accidents as inevitable	See no risks that would impact the
Behavior Based Safety	Near miss reporting program – root cause	Monitoring critical items	Traditional training	Compliance / Enforcement driven	Nothing
Employee Engagement	High trust / jointly set goals	Caring mgmt. / engaged employees	Warm & fuzzy HR focus	Low turnover, but Unionized	High turnover, and/or low skill workforce
Safety Training Methods	Associative learning based	Competency based	Show & Tell	Show videos	None
Accountability	Process improvement in place	Use leading indicators to measure safety	Use outcomes to measure safety perf.	Punish safety violators	No enforcement of safety rules
Drug Testing	Full program with EAP	Pre hire, post accident, for cause	Pre-hire only	Inconsistent post-accident drug testing - firing "+- workers	No testing at all
Health & Wellness	Incentivized programs	Screenings	Some activity	Nothing yet, but may consider in future	Scoff at the concept
Return to Work	Will always do – 100% policy	Generally will do – have in the past	Will try if restrictions easy to accommodate	May or may not – case by case	Will not – don't see the benefit

N3L3 is about how we manage *RISK*...



- Changing our perception of Risk and where it occurs.
- Recognizing that no organization is absent of risk – just because they have a “good” safety record.
- Taking an active role in implementing strategies that will change the outcomes.

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Conscious vs. Intuitive Thought



Intuitive vs. Conscious Thinking



- **Intuitive Thinking:**
 - Decisions made without conscious thought
 - Reactionary response based upon prior experiences
 - Less concerned about the process
- **Conscious Thinking:**
 - Critical or analytical decision making
 - Facts and data are applied and weighed
 - Consequences or outcomes are considered
 - More concerned about the process



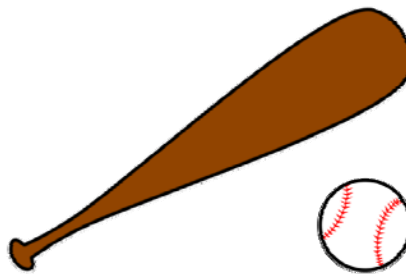
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Baseball Bat & Baseball



Total price is \$1.10



The bat cost \$1.00 more than the baseball.
How much does the baseball cost?

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Baseball Bat & Baseball

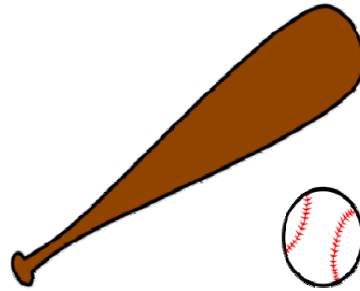


Intuitive Thinking Method:

The Bat costs \$1.00 and the Ball costs 10 cents

Conscious Thinking Method:

The Bat could cost \$1.05 and the Ball 5 cents



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Why do we make certain decisions?



- Easiest
- Fastest
- Always done it that way
- Incentives
- Organizational Drivers?

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Organizational Drivers of Unwanted Behavior



- Behaviors: (good or bad) occur within the organization that reinforces it
- Piece rate pay
- Unachievable output demands
- Supervisor or Peer Pressure
- Lack of proper training or tools
- “Doesn’t matter what I do, I will be blamed”
- Not about “fixing” employees

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Focus on Management Systems



Deflated Systems?



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Safety as the Absence of Injuries



- Traditional safety - where the number of things that go wrong is acceptably small
- What do our incidence rates measure?
- Safety is not just the absence of injuries



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Does this make sense?



- We have measured how “safe” an organization is by the number of people we hurt!!!
- If ZERO is achieved, were we Good or Lucky?
 - How close were we to failure and didn’t know it?
 - Absence of safety issues give us no reason to assume something is amiss
 - Serious issues can exist with no outward symptoms



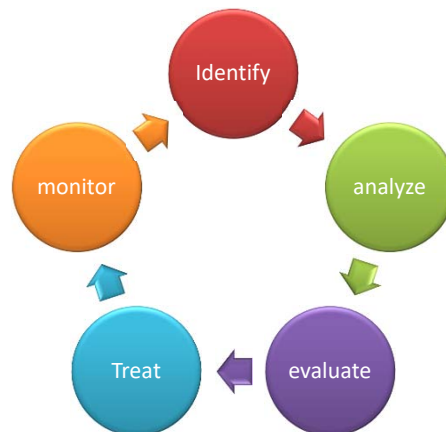
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It’s all about how we manage *RISK*...



It is an ongoing process that takes place at all levels within an organization (Enterprise Wide):



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Precursors and Risk Factors



Common F&LC Precursors



Often “high-energy” potentials...

- Motor Vehicle operations (#1 cause Occ. Fatalities)
- Falls (#3 leading cause of Occ. Fatalities)
- Manual Material Handling – Repetitive and Acute
- High Voltage contact or work
- Mobile equipment (forklifts, Bobcats, tractors, mowers)
- Non-routine work during emergency or planned shut downs
- Construction work by “other” employees
- Confined Space Entry
- Trenching
- Crane / Hoist activities
- Chemical Applications

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Other F&LC Risk Factors



- Hurrying
- Fatigue
- Aging Workforce
- Younger Workforce
- Less experienced employees
- Distractions, or
- Frustrations
- Workplace Violence (#2 Cause of Occ. Fatalities)

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What's Wrong With This Picture?



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Look A Little Closer



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Pre-Work Planning



Pre-Work Planning



- Pre-job, pre-task, pre-shift
- Pre-project meetings
- Formal Risk Assessment processes
 - e.g. Job Hazard Analysis (JHA)
- What to include?:
 - What's the scope of the job, task, etc?
 - Who's involved?
 - Safety Requirements
 - What could possibly go wrong?

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Risk Assessments



Purpose of Risk Assessment



The process attempts to answer:

- Areas of potential risk?
- Current controls in place?
- Potential consequences?
- Probability of their future occurrence?
- Factors that mitigate the consequence of the risk, or that reduce the probability of the risk?
- Level of risk **“Acceptable”** or **“Unacceptable”**?
- Prioritizing ongoing efforts?



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Root Cause Analysis





“Those Who Do Not Learn From History Are Doomed To Repeat It”

- George Santayana (Spanish Philosopher)

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- Why? To prevent a recurrence!
- Not about the blame game
- Identifies preventive & corrective actions
- Most effective when done by teams
- Looking for the breakdowns or shortfalls in the management systems

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Any guesses as to the next slide?



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Thinking About Potential Consequences?



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Crew Resource Management



Crew Resource Management



- Concept developed in a NASA workshop in 1979
- Goal to improve air travel safety
- Many aircraft incidents were the result of:
 - Failures of interpersonal communication,
 - Leadership,
 - And decision making in the cockpit



Lessons Learned



Key Points from many of the airline crash investigations:

- Someone likely recognized a problem
- No one spoke up – *not empowered*
- No one listened – *authoritarian culture*

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Stop Work Policy



- Stop Work Policy
 - Written & detailed
 - Clearly defined roles
 - Everyone has a voice
 - Appropriate management response every time

Stop Work Authority
Stop any work or behavior you deem unsafe to yourself or your coworkers.

STOP

*You will **never** be penalized for stopping unsafe work or speaking up about hazards and injuries.*

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Flipping the Switch in our thinking!



- Focus not on what goes wrong, but what goes right!
- We must begin analyzing and critiquing normal everyday work!
- We must seek out and recognize the weak signals (aka: precursors)
- Make safety a core value and not just a priority

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How well are you prepared for the next 3 seconds?



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Questions on N3L3?



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