# Risk Management 101: Top 5 Emerging School Safety Trends

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## Objectives

- Overview of Risk Management in Schools
- Overview of top 5 most problematic Safety and Environmental Health areas:
  - Trips, Falls (JG)
  - Lighting Regulations and Assessments (JG)
  - Fall Protection (SL)
  - Hearing Conservation (SL)
  - Chemical Hazard Communication (EJ)

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## What is Risk Management in Schools?


- The process of planning and taking actions that will minimize the adverse effects of risk in the educational environment.
  - Student and staff injury.
  - Legal non-compliance.
- It means to anticipate, recognize, evaluate, and mitigate the potential hazards that could impair the health and well-being of the school community.
- Documentation of data and processes to assure continuity.
- Proactive, preventive process.

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## Benefits of Risk Management

- Protects staff and students from harm.
- Reduces potential losses in revenue.
- Safeguards the district's public reputation.
- Makes your students, teachers, and parents feel safe.
- Supports the continuity of quality education.
- Limits the possibility of a lawsuits.


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## Risk Management Process


***Starts with identification of hazard, also called Hazard Assessment.***

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## Step 1 & 2 : ID and Assess Risk


- Safety and Health Core Rules: Chapter 296-800 WAC: Employer and employee responsibilities
- Employer responsibility: "Employer must establish, supervise, and enforce rules that lead to a safe and healthy work environment that are effective in practice."
- Employee responsibilities: collaborate, coordinate, study, follow safety guidance, etc.
- Accident Prevention Program
- Job Hazard Analysis (JHA): "A qualified person must perform a job hazard analysis … to determine the safeguards and personal protective equipment that must be used for each job." WCT/UP recorded training.

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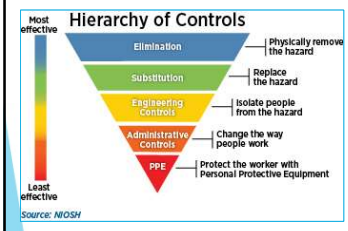
## 3. Control Risk: Hierarchy of Controls

**Apply these controls to your level of exposure.**




Admin controls:

- Reduce the frequency of a task.
- Increase efficiency of a task.
- Distance the worker from the hazard.
- Job rotation.
- Increase rest period after exhausting tasks.

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## Safety & Health Areas / Subjects

- Slips, trips and falls.
- Lifting heavy objects.
- Awkward positions, rotation, lifting above head, reaching.
- Repetitive motion.
- Extended standing.
- Dangerous machinery – cuts, scrapes.
- Electric safety, running cords, fans, water and electricity.
- Chemical safety.
- Etc.


- Crowded workspaces, blocking exits.
- Heat and burns.
- Fatigue and stress.
- Ladders.
- Fire safety.
- Walk-in freezers.
- Cleaning and disinfection.
- IAQ and exhaust system.
- Housekeeping.
- Etc.

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## Slips, Trips, Falls

In the last ten years, the PSWCT has experienced 4,897 slip, trip, and fall claims resulting in incurred costs of approximately $43 million. The average cost per claim is $8,905.

Nationwide, in 2020, 42,114 people died in falls at home and at work, according to the Centers for Disease Control (2022).

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## Slips, Trips, Falls

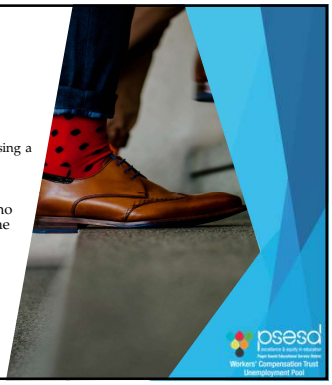
**Slips** occur when there is not enough friction or traction between a person's feet and the surface they are walking on.

**Trips** happen when a foot strikes an object, causing a person to lose their balance.

**Falls** occur when the body loses balance or is no longer supported and comes into contact with the ground.

**An elevated fall is when someone falls from one level to another.**

**A same-level fall is when someone falls to the floor they are standing on or against a nearby object or wall.**



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## Real World Example

**Slip:**
Too little friction or traction between feet (footwear) and walking/working surface, resulting in loss of balance.

**Possible Root Cause:**
Improper chemical storage.

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## Real World Example

**Trip:**
- Foot or lower leg hits object and upper body continues moving, resulting in loss of balance.
- Stepping down to lower surface and losing balance.

**Possible Root Cause:**
Improper housekeeping practices.

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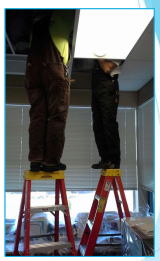
## Real World Example

**Two types of Falls**

- **Fall at same level:**
  Fall to same walking or working surface, or fall into or against objects above same surface
- **Fall to lower level:**
  Fall to level below walking or working surface

**Possible Root Cause:**
Improper use of tools and equipment.



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## Slips, Trips, Falls: Prevention Methods

Footwear:
Non-slip options are encouraged for kitchen, maintenance and grounds staff.

Housekeeping:
Reduce clutter and do not store items on the floor.

Training:
Equipment specific training, spatial awareness, use the right tool for the job.

Equipment Inspection and Maintenance:
What is the maintenance request process?
Are employees trained to identify abnormalities of equipment?

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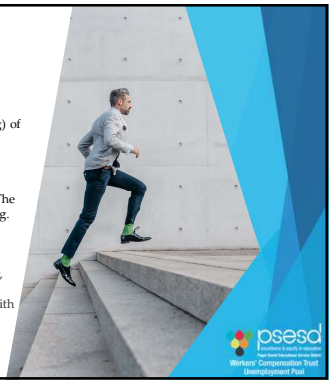
## Slips, Trips, Falls: Prevention Methods

**Coefficient of Friction (CoF) for Footwear:**

- Friction is the force that resists movement (slipping) of an object on a surface.
- The coefficient of friction gives insight to the relationship between materials in contact with one another.
- The CoF is expressed by a value between 0 and 1. The higher the CoF, the greater the resistance to slipping.

**Regulatory standards are detailed in CSA Z195:**

- Details requirements for static-dissipative footwear, with or without toe impact resistance.
- Defines requirements for slip-resisting footwear, with or without other protective features.



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## Action Items

- Engage your staff to share their safety concerns and seek their input when developing solutions.
- Provide anti-fog wipes to employees who use eye or safety glasses to perform work.
- Update the *Footwear Use Policy* to require non-slip shoes for certain job tasks or work groups.
- Implement a *Handrail Use Policy* to require when a handrail is available on a step, incline or similar, it must be used to maintain three points of contact (two feet and one hand).
  - If your hands are too full to use the handrail use an alternate route such as an elevator or use a cart/dolly/backpack to carry your materials.

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## Lighting Regulations and Assessments

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## Measuring Light Intensity


- **Foot-candle** and **lux** are units of measurement for light intensity.
  - Foot-candle is used in the imperial measurement system, where lux is used in the metric system.
  - Foot-candle is the amount of light given by a standard candle (one lumen) over one square foot = 1 foot-candle.
- Most light meters can measure in both foot-candle and lux.

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## Minimum Lighting Requirements
**WAC 246-366-120**

| General, task and/or natural lighting may be used to maintain the minimum lighting intensities. | Minimum Foot-Candle Intensity |
|---|---|
| Non-instructional areas including: Auditoriums, lunchrooms, assembly rooms, corridors, stairs, storerooms, and toilet rooms. | 10 |
| Gymnasiums: Main and auxiliary spaces, shower rooms and locker rooms. | 20 |
| Kitchen areas including: Food storage and preparation rooms. | 30 |
| General instructional areas including: Study halls, lecture rooms and libraries. | 30 |
| Special instructional areas where safety is of prime consideration or fine detail work is done including: Sewing rooms, laboratories (includes chemical storage areas), shops, drafting rooms and art and craft rooms. | 50 |

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## Lighting Assessments

- Take measurements as close to the task or walking surface as possible.
- Note any natural light sources or lack thereof. Weather conditions may affect ambient lighting.
- Lighting may present a fire hazard due to heat transfer or electrical spark. LED lights produce minimal heat.
- Excessive brightness and glare shall be avoided to reduce eye strain.
- K-12 DOH Health and Safety Guide provides a lighting assessment checklist on page 26.

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## Exit Lighting

- Exit routes and emergency planning are covered in WAC 296-800-310 and CFR 1910.37.
- Each exit sign must be illuminated to a surface value of at least five foot-candles (54 lux).
- Provide at least two unobstructed access to exit routes of adequate size and location.
- Illuminate each exit route adequately and reliably.
  - Most exit lights have an internal battery for use when building power is interrupted.

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## PCB Lighting Sources & Health Effects

- Polychlorinated biphenyls (PCBs) used as a coolant or lubricant in electrical equipment, paint, and plastics, among other products.
- PCBs don't break down easily in the environment and may remain there for very long periods of time. PCBs can contaminate air, soil, and water.
- Health risks of exposure include liver damage and skin irritation.
  - Health effects can be passed from mother to child.
- Blood tests are used to confirm exposure.

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## Fluorescent Light Ballast Replacement Funding

- The Washington State Departments of Health and the State Department of Ecology are engaged in a program to find and replace old fluorescent lighting that could contain PCBs.
- They are offering reimbursement vouchers worth up to $10K to offset the costs of light fixture replacement and waste disposal in schools.

Apply for financial assistance here:
Fluorescent Light Ballast Replacement Application (wa.gov)

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## Identification and Disposal of PCBs

- Use the PCB Information and Reference Fact Sheet to identify PCBs at home and work.
- Any FLBs manufactured before July 2, 1979, may contain PCBs.
- Any FLBs marked with the statement "This equipment contains PCB Capacitor(s)."
- Outsourcing the risk of PCB exposure is usually the most effect risk management strategy.
  - Hire a contractor who is familiar with the removal and disposal of this hazardous chemical.
- Contents are typically destroyed by incineration or hazardous waste landfill burial.

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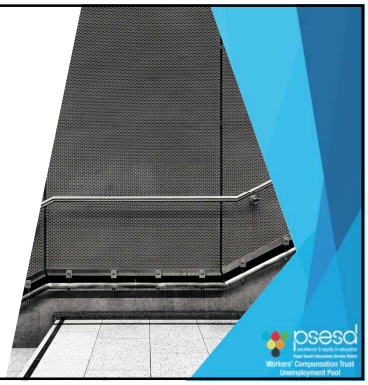
## Fall Protection



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## The "New" - Unified Standards for Fall Protection

*Effective November 1, 2022*

**Why?**

- Combined standards for new construction and defined post construction fall hazards.
- Provided clarity on when a fall protection plan is required and when it is not!

**What changed?**

- Included a provision when no fall protection is required.
- Provided a handy *Quick Reference Guide* that explains common fall hazards and the threshold heights.
- Clarified language regarding when you can use the "safety watch system"
- Added clarifying language and situations on when you can apply the "fall protection exemption."

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## When is Fall Protection Not Required? The "Exception"


- When work is performed 15 or more feet from the leading edge of the roof edge. (WAC 296-880-20005 (7)(f))
- Work must be infrequent and temporary.
- Fall protection work plan is not required.
- Work can be performed alone.
- This is different than the "Fall Protection Exemption."

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## Safety Watch System

**What is the "Safety Watch System"?**

- Can only be used on low-pitched or flat roofs.
- Must be a competent person?
- Can be utilized when work is performed infrequently or temporarily.
- Requires a fall protection work plan.
- Work must be performed six feet from the roof edge.
- This is not to be confused with the "Safety Monitoring System."

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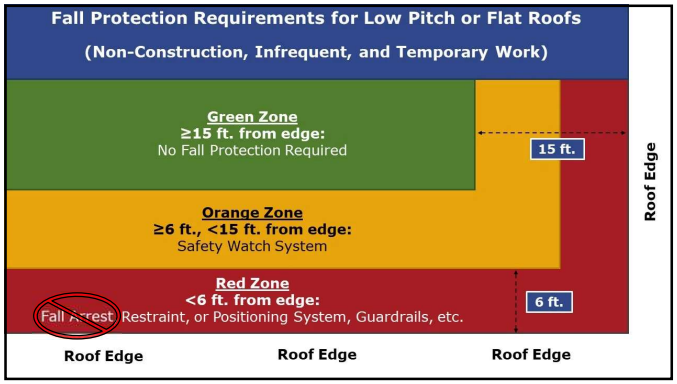


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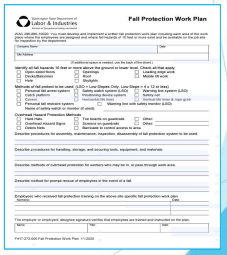
## Do I Need to Have a "Fall Protection Work Plan"?

- **YES.** The employer must develop and implement a written fall protection work plan including each work plan where fall hazards of **10 feet** or more exist.


Fall Protection Work Plan

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## What is the "Fall Protection Exemption"?

- No fall protection required when installing or disassembling a fall protection system.
- When employees are inspecting, investigating, or accessing roof level conditions or work to be performed on low-pitched roofs.
- Only applies to low-pitched roofs.

EXEMPT

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## Still The Same?


- Fall protection required **regardless of height** and at **four feet.**
- Personal fall protection required when performing work within six feet of the leading edge.
- Personal fall protection required on steep-pitched (>4/12 pitch) roofs or dangerous slopes.

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## Hearing Conservation

Onsite Audiogram Program

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## Hearing Conservation - Onsite Audiogram
### Program Update

- All Trust districts are participating?
- Participation for Music/Shop Teachers is increasing!
- Additional testing appointments available for medium and large districts with approval.
- What about new hire employees and baseline testing?
- What do I need to do when an employee's test results show a standard threshold shift?
- What are hearing protection audits?
- Are audiograms required or voluntary for employees?




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## Chemical Hazard Communication

Mandated by law for the past 40 years

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## Where Are the HazChems In Schools?

- Science laboratories.
- CTE technical education (woodwork, welding, 3D printing, aerospace, nursing, agricultural & veterinary programs.
- Art activities (photography, printing, painting, glass, pottery, glass etching, jewelry making, etc.).
- District maintenance & transportation.
- Custodial supplies.
- Health rooms.
- Food services.
- Offices (printers, copiers, laminators).
- Pools.
- Classrooms, early learning.
- Restrooms, lockers.
- Construction, renovation.

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## What are the Hazards?

- Unstable/Explosive
- Flammable or combustible
- Highly reactive (with water, air, organics, etc.)
- Toxic (acute and/or chronic toxicity; target organ toxins, carcinogens)
- Corrosives
- Irritants, sensitizers

Reference: WAC Chapter 296-828

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## What Can Happen if HazChems are Mismanaged?

- Accidents: Burns, fire, inhalation of toxins.
- Long term chemical exposure & chronic illnesses.
- Aggravation of pre-existing health conditions.
- Damage to buildings, sewers and equipment.
- L&I non-compliance and associated CO$$T.

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## Look Under the Sink

- Flammables
- Toxins
- Irritants

- Elementary classroom
- Close to food
- Easily accessible

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## ACCIDENT:
### METHANOL BURN IN HIGH SCHOOL LAB

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## ART: POTTERY
### CLAY DUST AND HEAVY METALS EXPOSURE

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## WOOD SHOP
### DUST INHALATION, WOOD TREATMENTS & POTENTIAL DRY DUST EXPLOSION

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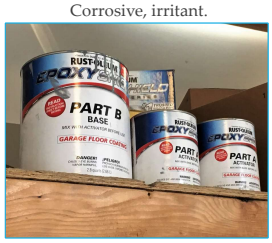
## District Maintenance Shops

Corrosive, irritant.




Poison, extremely flammable, fine mist.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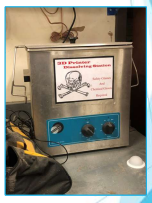
## 3D Printers, Copiers, Laminators:
### Hazardous Air Emissions



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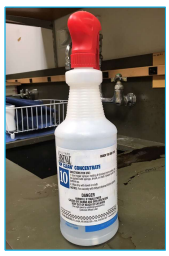
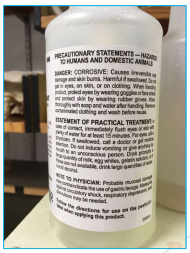
## Custodial Supplies:
### Danger, Corrosives Causes Irreversible Damage

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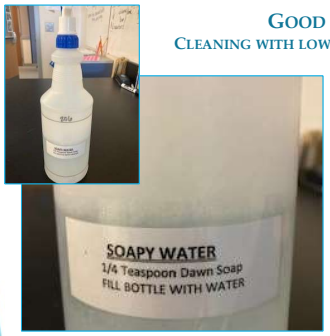
## Good Replacement:
### Cleaning with low-hazard, neutral detergent




Liquid / Dish Soap = Detergent

- Low Hazard
- Inexpensive
- Easy to Prepare

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## Basic Legal Requirements:

**For Science Labs**

- Chemical Hygiene Officer
- Chemical Hygiene Plan
- Inventories
- Labels
- Safety Data Sheets
- Training

HAZARD SPECIFIC
WAC 296-828

**For Other HazChems**

- Hazard Communication Program
- Inventories
- Labels
- Safety Data Sheets
- Training

HAZARD SPECIFIC
WAC 296-901

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## Hazard Communication Plan Mandatory
WAC 296-901

Inventory: Up to date
Labels: GHS compliant labels
SDS: GHS compliant Safety Data Sheets.
Written: Program updated as needed.
Training: Specific


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## Safety Equipment and PPE

- Emergency washing stations
- Ventilation
- Fire protection
- Spill kits
- Goggles, gloves, aprons
- Appropriate clothing
- First aid kit

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## General Rules for Safe Chemical Use

- Read up on hazards BEFORE purchase.
- Always choose the lowest hazard and smallest amount.
- Always minimize exposure by all routes (inhalation, skin, ingestion, injection).
- Have written safety procedures and train exposed employees.
- Always read the labels and the SDS first and follow the precautions.
- Have appropriate safety equipment and PPE.
- Properly dispose of the accumulated hazardous wastes.

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## Take-Away Action Items

- List district departments and programs that use HazChems.
- Check the *Chemical Hazard Communication Plan* and update.
- Cleanout and proper disposal of hazardous wastes.
- Pre-plan purchases, reduce chemical stock.
- Mandate training for all employees who may be exposed to HazChems.
- **PROACTIVE PLANNING**: Are the room, the activity, the equipment, the training of staff, and the age of students a good match?

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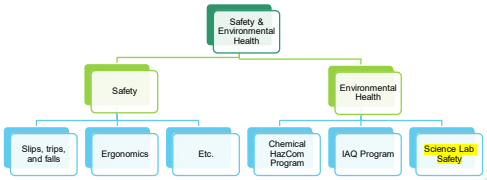
## Documenting EH&S on District Shared Drive

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## Questions?

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## Contact Us

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## Available Member Services

**Workers' Compensation Trust**

- Claim Intake, Reviews, Investigation
- Compensability Determination
- Disability Management, Vocational Rehabilitation
- Exposure Analysis
- Incident Reporting
- Legacy Claims Management
- Industrial Hygiene
- Litigation Management
- Loss Control and Prevention
- Management Reporting
- Medical Cost Management
- Return-to-Work Planning

**Unemployment Pool**

- Claim Management
- Compliance Management
- Legislative Updates
- Management Reporting
- Review, Hearings, Appeals
- Training & Education

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## Connecting With PSESD

PSESD on Facebook

PSESD LinkedIn

PSESD Twitter

PSESD YouTube Channel

**WWW.PSWCTUP.ORG**

800 Oakesdale Avenue SW, Renton, WA 98057

425-917-7600

memberservices@pswctup.org

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## Upcoming Trainings

**Key Milestones of the Claim Lifecycle Series Part II: Claim Management and Recognizing Complications**
- Presenter: Tim Reeve, Owner & Founder of Reeve Law Firm, PLLC
- Date: June 27, 2023
- Time: 10:00AM – 12:00PM
- Location: Teams Webinar

Register Here

**Return to Work Incentive Program (RTWIP) Reimagined**
- Presenters: Aliza Hauser & Christian Porter
- Date: September 28, 2023
- Time: 10:00AM - 11:30AM
- Location: Teams Webinar

Register Here

**Key Milestones of the Claim Lifecycle Series Part III: When and How to Close a Claim**
- Presenter: Tim Reeve, Owner & Founder of Reeve Law Firm, PLLC
- Date: July 20, 2023
- Time: 10:00AM – 12:00PM
- Location: Teams Webinar

Register Here

**Key Milestones of The Claim Lifecycle, Part V: Knock, Knock, Look Who's Back**
- Presenters: Tim Reeve, Owner & Founder of Reeve Law Firm, PLLC
- Date: October 26, 2023
- Time: 10:00AM – 12:00PM
- Location: Teams Webinar

Register Here

**Key Milestones of the Claim Lifecycle series Part IV : The World of Litigation and Board Appeals**
- Presenter: Tim Reeve, Owner & Founder of Reeve Law Firm PLLC
- Date: September 14, 2023
- Time: 10:00AM - 12:00PM
- Location: Teams Webinar
- Register Here

**WA DOH Fall School Environmental Health Workshop**
- Presenters: Department of Health Speakers TBD
- Date: November 7, 2023
- Time: TBD
- Location: Teams Webinar

Register Here

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**Slide 57**

**YN0** [@Tif Litt] - Hi Ms. Tif!  Can we please add the Tim Reeve flyer after this slide? Thank you!
Yzabel Nelson, 2023-06-20T23:26:20.462

**TL0 0** Done :)
Tif Litt, 2023-06-21T16:47:03.584

## Key Milestones of the Workers' Compensation Claim Lifecycle



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## Feedback Survey

Qualtrics Survey | Qualtrics Experience Management

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## Thank You!

We appreciate your time and participation!

We invite you to complete the post-event survey.

Your feedback will inform our efforts to continually enhance the value of these events!

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