BREAKTHROUGH SAFETY LEADERSHIP
An Integrative Approach to Hand Injury Prevention
By Robert Pater

The best leaders move others, both toward changing their beliefs, upgrading decisions and actions, and away from complacently doing the same-old minimally effective routines or systems. In fact, moving forward is integral to all progress.

But how do leaders deal with a problem that just doesn’t seem to go away despite having “tried everything”? For many safety leaders, hand injuries are a prime example of a frustratingly persistent and resistant set of problems.

Going Beyond an “Our Hands Are Tied” Mindset
The first thing I recommend in general that leaders do when trying to grapple with a tenacious problem is to examine their own mindset. This very much applies to safety as well as broader organizational arenas. Like all two-edged swords, mindset is a powerful attribute that leaders can enlist, either potentially cleaving through obstacles to help solve problems or cutting back on those limiting organizational mindsets that diminish potential results.

A mindset comes from our past carried over into the present; it is an amalgam of many elements: our assumptions, habitual thinking, what we’ve learned from experience, fears and aversions, strategies by default, and what we are predisposed to perceiving, overlooking, disregarding or assuming is obvious. Like everything, the inclinations any mindset engenders can be both helpful and obstructive. Negatively, it can blind us with confirmation bias or otherwise limit what we see and, therefore, what we consider, then decide to do with our time, efforts and resources. On the upside, a highly effective mindset has the potential to form structures and create new directions that lead to making safety breakthroughs. And most heartening, taking control of our mindset is within each of us as leaders and thereby is readily and most easily controlled (a lot easier than, say, getting other people, departments or business units to operate according to the way we expect or demand).

So, rewind to “we’ve tried everything,” which I’ve heard many times regarding hand injury prevention. While it should go without saying, by definition and common sense, there is no such thing as having tried everything; there are always other approaches that might be attempted even if they don’t occur to any one leadership group. Of course, when I’ve heard leaders saying some variant of this (e.g., “There’s nothing more we can do”; “Just have to accept that these injuries will always be a problem”; or a version that blames others for leadership’s lack of success in improving results), these are often expressions of frustration, anger or dejection, and wise leaders should recognize these as such, rather than as an excuse for giving up on raising performance. Just because I personally may not be able to think of it or accomplish it doesn’t mean someone else can’t. Just because I haven’t done it yet, doesn’t mean I can’t do it in the future. My bottom line: For safety leaders who are intent on moving toward global-class performance, who have already “picked off their low-hanging fruit,” doing nothing is not a viable option and just doing more of the same is equally self-defeating (as Will Rogers commented, “The secret of success is simple. If you’re in a hole, quit digging”). Try something else. Climb out of the ditch of past failed attempts. My lowest common denominator: If what I’ve tried hasn’t worked, at least make a different “mistake” next time.

Perhaps more important than simply accepting that a longstanding problem is unsolvable is leaders’ bringing to consciousness, then overcoming their self-limiting mindsets. In the case of hand injuries, this means determining whether their default approach is too narrow and isolated: just “following the numbers” rather than adopting a fresh, systemic viewpoint.

What do I mean? First, study the lay of the hand: finger and hand injuries can range from persistent (e.g., bruises, pinches, lacerations, abrasions, strains) to severe (e.g., amputation, dislocation, carpal tunnel syndrome, Raynaud’s disease). Many companies default toward addressing finger, hand, wrist or arm injuries seeing through their mind’s eye as:

• a machine or tool problem, so they seek to fix this by getting more ergonomically designed or better tools. This assumption directly leads to the solution of doing a better job of reducing hand access to sharp edges or pinch points (gloves requirements and machine guarding, tool redesign as well as other PPE); and

• an attention issue to be fixed by attempting to enlist workers’ will to protect themselves, to remember and incorporate procedures and policies, and very much to “pay attention” (often motivating workers by fear—I’ve seen some pretty gruesome posters that aimed to “motivate” hand safety awareness and ongoing change in actions). The more someone engages in any activity, the greater the risk of complacency and the less likely that person will be fully mindful of...
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every movement, each of which is an “opportunity” for injury. With so many finger and hand movements, their level of accepted risk rises (“It won’t happen to me. I’ve done this a thousand times”).

There is no question that an inability to direct attention is a strong component in many hand injuries. But most of the ways this is implemented in reality fall far short of generating desired results. The proof of this pudding: If these approaches actually worked, finger and hand injuries would not be as persistently tenacious as they are (and I would not have written this article).

Key points of what I know does not work:
1. Relying solely or mostly on external controls to prevent these prevalent injuries. While these are indeed necessary first steps, no one can control every exposure through design, equipment purchasing, or policies and procedures. Too many kinds and numbers of exposures exist. And no one is immune. As Ron Bowles reminds, “An accountant can puncture their finger with a pen, a flight attendant can get trigger finger from opening numerous soft drink cans, a medical tech can smash their hand between a gurney and a door frame, and so on.”

2. Assuming that leaders will somehow be able to make workers Zen-master-like ever hyper-consciously aware of every finger and hand movement they make. This is totally unrealistic even in a low-demand, slow-paced work environment (of which I’ve not seen many).

Further, we’ve found from our more than 3-decade experience working with three types of personal injuries (hand injuries, slips/trips/falls, soft-tissue/strains/sprains) that:
• The level of difficulty in sizably reducing these injuries is in that order; that is, finger and hand injuries are the most challenging. Of course, as in everything, there are always reasons and contributing factors. Like many safety issues, it has to do with the interface between the number of exposures and personal or individual control. We’ve seen firsthand that most people’s exposures to soft-tissue injuries (e.g., pushing, pulling, lifting one- or two-handed, climbing, using tools) are generally on the order of tens or perhaps low hundreds of times per day. But many people take thousands of steps per day; each one is a chance to slip/trip and then potentially fall. But with hand injuries, most people move 10 fingers on their two hands an incalculable number of times per day (I estimate this can be in the tens of thousands: many more than their number of daily steps). Each movement of fingers and hands is a potential exposure to injury. More physical exposures equal greater potential risk. And more exposures also mean the pressure of mindfully being aware of finger and hand placement and use throughout even a single day is much more challenging than, say, being watchful when one crosses slippery ground or setting up to lift or pull 50 times. No wonder hand injuries are such a seemingly unscalable or insurmountable obstacle for so many companies.

• Trying to get people to want to use their hands in a safe manner, to appeal to their will to note and then overcome continuous risks over the course of even a day, much less months and years, is a big ask, a significant and unrealistic challenge.

Handy Strategies
What does work? Here I’m referring to reports of up to 35% to 40% reductions in finger and hand injuries (compared to 50% to 85% fewer soft-tissue injuries in many companies). First, of course, is reasonably engineering out egregious hand safety risks (naturally done by most companies). Second is developing tangible and easily transferable mental and physical skill sets that put workers in greater control of their own hand safety by building safer default habits. Third is consistently setting and reinforcing these habits to strengthen them and avoid slipping back to older, tried-and-true methods. Obviously, there is a lot here, and much that I cannot transfer through any writing or even video (no more than being able to teach someone how to ride a bicycle). Here are seven leadership mindset strategies that can lend a strategic hand. Don’t go it alone. Consider all of these as the building blocks of a high-level hand safety mindset. I invite leaders to examine and change any paradigm that does not work and to take an integrative, not isolated, approach.

1. Communicate the importance of adopting skills at least as much as relying on your will, which can be accomplished at any stage in life (not something we are either born with or not). Ron Bowles says, “Many people think, ‘It won’t happen to me. I’ve done this a thousand times.’ Hand safety really is something where you have to teach people to think differently about where they put their hands and how they use their hands. But we can all learn to better ‘see’ hand injury potentials. Developing this skill (and most can to a workable degree) sets the groundwork for then learning how to better reduce exposures.”

2. Get all hands on deck. Customize applications and practice to the types of hand injury exposures workers actually have. We have found that different types of exposures require different solutions. Methods for preventing cuts from using a box cutter are different from those for preventing punctures working with a drill press. Generic hand safety methods are much less useful or likely to be applied than those that are customized to their specific tasks (e.g., lacerations from slitting, crushes from pinch points, carpal tunnel syndrome related to repetition of force vs. flexion, dislocations from reaching in, burns from contact, white finger/Raynaud’s disease from vibration).

3. Boost practical, easily learned attention control skills. This is the operational engine that engages the wheels of mindfulness. Go beyond exhorting, demanding, commanding, pleading or mainly appealing to will. Directing and focusing attention are skills. Like any other skill, there are ways to develop

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definition.
these but with the right and reinforced practice. Such skills include how to:

- Maintain attention when there is other competing input (not allow attention to get pulled away), especially while doing tasks that are at high risk for hand injuries.
- Pause, then quickly regain attention when distracted.
- Make several small adjustments in moving arms and hands that in turn boost finger and hand dexterity, strength and control.
- Effectively self-monitor attention as well as adjust body position that affects hands. For example, foot position affects balance and when a person is off balance, the natural tendency is to put a hand out (often in a less-than-ideal place) to brace themselves (and realistic bracing when needed is itself a skill set).

4. **Elevate off-hand awareness.** The approximately 90% of people who are right-handed are at increased risk of injuring their dominant hand.

Right-handers tend toward “hand attention deficit,” being one-side dominant to the degree that they often have minimal awareness of their off (nondominant) hand. (Left-handers, who live in a world of right-hand-designed tools and equipment, tend to be more balanced in their hand usage because they have to.) Understandably, when people are working with their hands and something goes wrong, they instinctively react by extending their hands to guard their bodies. This further puts their hands at risk. Bear in mind that there are more effective ways for self-protection through training to reset default reactions to any impacting force.

Predominantly employing one hand (e.g., on tools, opening jars) puts that hand at greater acute and cumulative risk. And force tends to transfer more toward that same side of the body. (Hand usage can affect cumulative trauma soft-tissue issues in the arms, neck, shoulders and back.) So, consider helping workers unload, using their off hand more, especially at first in tasks that are less crucial (e.g., drinking coffee, grasping). This approach also has the side benefit of waking up overall kinesthetic awareness. (For more on this topic, see my article, “The Left Hand of Safety.”)

5. **Build “base-ic” skills** (e.g., foot position, distance, spinal/postural shape). Poor balance can consider significantly contribute to hand injuries. For example, this can result in employees losing control of a tool or other object, resulting in a crushed-by or cut-by injury. Uniform balance also can cause employees to reach out, using a hand to brace their weight to steady themselves, so they may potentially place their hands in a dangerous area (resulting in a wrist, finger or hand injury).

6. **Arm your people.** Better hand control, which is essential for enhancing hand safety, goes beyond just the hands. For example, elbow alignment and position directly affect where hands are, angles taken during use and different types of grip strength. (We have seen that a lot of smashed against or by, caught between and striking against injuries result in loss of control of either a tool or object, often due to inadequate grip, often exacerbated by arm and elbow position.)

7. **Hand it off—and on.** Be sure to set and repeat all hand skills. Make it ongoing, as, conversely, one-and-done really equals “and done.” Be sure to include at-home and other applications that personally resonate or are of interest to workers; this will motivate them to consider using new methods, which is essential for building a base of better hand safety habits.

**Conclusion**

Hand safety is important to everyone and an essential concern for many. The strongest safety leaders think systematically, not just about one specific type of extremity exposures (in fact, according to Paul McClellan, director of MoveSMART, many companies have successfully combined hand safety with preventing soft-tissue injuries, as manual material handling almost always also involves the hands).

But although many organizations have found hand injuries challenging to prevent, the good news is that experience has shown it is possible to make significant improvements in preventing hand injuries with an approach that first opens up leadership mindset toward placing workers more in control of their own hand safety. Improved performance and culture are well within leaders’ reach, hands down. **PSJ**

**References**


