



The ErgoAlign™ System

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DEKRA's ErgoAlign™ system is a holistic, soft tissue musculoskeletal injury prevention process that reduces ergonomic-related injuries in the workplace by addressing its two primary root causes: Load and Capacity. When load exceeds the body's capacity, overexertion injuries occur. The ErgoAlign™ system is designed to focus on both reducing the work-related exposures that contribute to load and on employing strategies and techniques to increase the body capacity of the workforce.

Creating and sustaining a world class safety organization includes acknowledging and addressing the exposures that contribute to soft-tissue injuries. Traditionally, some organizations have been reluctant to address these exposures, as leaders may feel that soft-tissue injuries are an inevitable consequence of an aging workforce and/or the nature of the work being performed. The ErgoAlign™ service dispels this myth by acknowledging the role that culture, systems, and resources play in an organization's experience. Companies that invest in the ErgoAlign™ process experience far fewer soft-tissue or musculoskeletal injuries, lower turnover, and sustain higher levels of organizational performance.

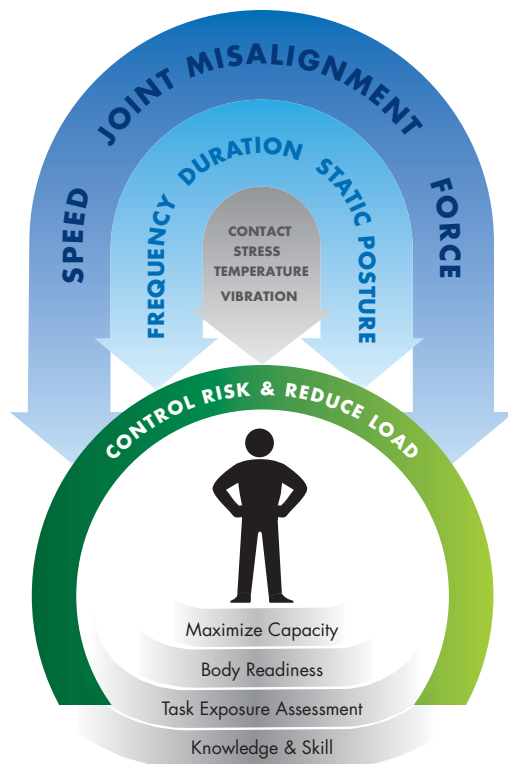
Whether just beginning or integrating into existing structures and system, here are the fundamentals of the ErgoAlign™ approach:

- Action-Oriented Senior Leadership
- Exposure Identification
- Exposure Control
- Frontline engagement

Let's look at each of these elements more closely.

1. Action Oriented Senior Leadership

Leadership engagement and commitment is essential for success. The action-oriented leader is proactive, resourceful, driven, results-focused and organized. A governance structure can provide that to an organization. These new or existing teams capture and share best practices, identify and implement solutions to control exposure, and prioritize and allocate resources.



Leaders need to apply their passion for people, recognizing the consequences of serious injuries on the quality of life of workers. System and equipment barriers that make it difficult to reduce load must be challenged. Leaders need a fundamental understanding of the role that both load reduction and capacity building have on soft-tissue injuries, and more importantly, as a frontline supervisor, manager or executive, how their decisions and actions influence these exposures.

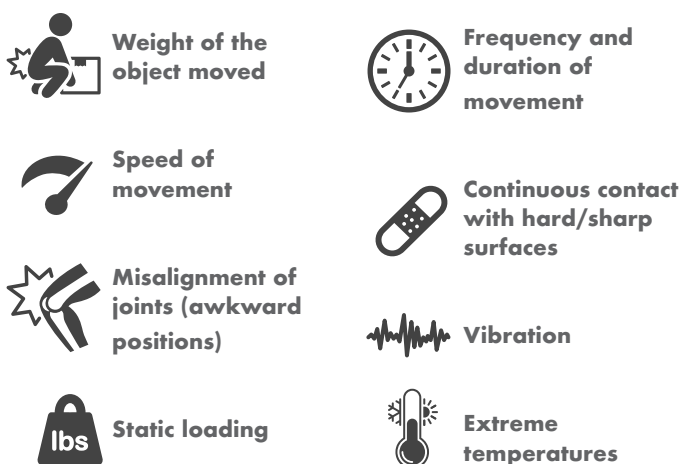
Example: when an organization is driven by a shared value for customer service, sales people may make promises to customers to deliver freight without consideration of the increased exposure to the person making the delivery. Once at the customer's door, the driver's sense of pride and commitment to the customer may trigger them to make the forceful and awkward movements needed to complete the delivery, despite the increased exposure to soft tissue injury. When the shared value becomes to "serve our customers," the action-oriented leader will proactively recognize the potential conflict and bring the key players together to collaborate on a solution, doing whatever it takes to work safely.

Leaders at every level need structure and organization to be successful. Critical to this foundation is the timely formation, chartering and organizing of an Ergonomics Governance and Oversight group that meets regularly. One of the requirements of team effectiveness is that ergonomics be integrated into the organization's existing exposure control solutions. A team that is charged with identifying and addressing ergo exposures, will rely heavily on input from frontline leadership and workers and may require additional skills training to successfully identify issues and develop solutions.

2. Exposure Identification

Exposures must be identified and understood before they can be eliminated or controlled. Through data analysis, observations and interviews, load factors, as well as other sources of pain or discomfort can be identified.

Each of the following factors is a type of load on the worker that can be observed:



Exposure is increased when more than one of these factors are present in the task being performed.

Not only are these risk factors and challenges present when manual work is performed, these may also be experienced by office-based personnel. In fact, anyone who performs most of their work in front of a screen has likely experienced some level of muscle tension, discomfort, fatigue, eye strain, and/or headaches due to poor alignment.

Each load factor described above places a unique type of exposure on the body that results in specific musculoskeletal damage. While certain jobs are more demanding than others, the overall scope of ergonomic hazards is so broad that the ErgoAlign™ process requires the involvement of the entire organization. Only then can the prioritized order and importance of each ergonomic hazard be addressed and determined through data collection. Data on the sources of ergo exposure include:

- Data analysis of known cases of MSD strain & sprain injuries
- Direct observation of work, performed onsite or virtually
- Worker interviews
- Targeted musculoskeletal discomfort surveys
- Deeper ergonomic analysis of identified high exposure jobs

Once there is an understanding of the ergonomic exposures present in the work, along with past efforts and learning by the organization, elements that carry the highest impact on controlling ergonomic exposures can be planned.

3. Controlling exposures: Reducing Load, Building Capacity, Making Safe Decisions®

To control exposures, a holistic approach that considers bodily force reduction and capacity building, decision-making and the influence of cultural factors is needed. A clear understanding of the exposures is critical before identifying ways to eliminate or reduce them.

The preferred method of controlling ergonomic exposure is to redesign an operation to eliminate the hazard, or obtain specific tools and equipment that reduce force, repetition, or awkward positions. An example is installing a conveyor to transfer material from one workstation to another, rather than manually lifting and carrying.

Each joint in the body has a lowest force and most natural path of movement. Training frontline workers to perform their work using these preferred work methods along with other protective behaviors such as assessing a load, using mechanical assist, and deliberately seeking relief and using PPE, are ways to control exposures. Engaging frontline supervisors to recognize and provide feedback to their team members about these protective behaviors is also key to success

DEKRA's Making Safe Decisions® technology is woven into the ErgoAlign™ system. Making Safe Decisions® provides tools to leaders and frontline workers to recognize and control brain centered hazards (precursors to human performance error) that impact decision making and safe actions. For example, one of the most important protective behaviors for a person whose work involves manual material handling is to assess the load prior to moving it. It is in this moment that critical decisions are made on how to move this load safely. Can I move this by myself today? Should I ask for help? Is there a mechanical device that I should be using? Should I rearrange the work or reposition my body before I try to move it? Making Safe Decisions® teaches techniques to deliberately engage the slow brain (conscious thought) before critical movements that impact safety and wellness are made. Skills building adapts current neuroscience research to practical applications for frontline workers and leaders use tested methods to teach the workforce the techniques of Seeing, Thinking, Doing and Teaming.

4. Frontline Engagement

Engagement of frontline leaders and workers is a theme woven throughout the entire ErgoAlign® process. Both frontline supervision and workers should be represented on the governance team that is guiding the process. SafeAlign® for supervisors, an element of ErgoAlign™, is skills training aimed specifically for the frontline supervisor and is reinforced through in-field coaching and technology-based prompts of key concepts.

Most soft-tissue injuries occur beneath the skin and are therefore invisible to both workers and leadership. The worker may have no idea why they are experiencing pain or discomfort and they likely don't know what is required to prevent the problem from repeating in the future. Likewise, leadership is completely blind to direct evidence of the injury because they can neither see the injury nor feel the pain associated with the soft-tissue damage. This lack of information can create skepticism and harm trust. This is why all levels of the organization receive some degree of skills training. ErgoAlign™ provides that guidance using proprietary technologies and methodologies including 3D Medical Animation that takes the viewer beneath the skin and shows precisely the cause of most major soft-tissue injuries.

Conclusion

The ErgoAlign™ process goes far deeper into correct and incorrect human movement than most safety education. The biomechanical knowledge and resulting behavior change in the organization is transformational. Exposure to soft-tissue musculoskeletal injury risk factors is reduced in ways the organization may never have anticipated.

These processes are extremely effective at reducing soft-tissue injuries while simultaneously supporting safe and reliable production. Once workers understand the lasting value of ErgoAlign™ practices, they incorporate them in their daily routine. Suddenly, production and worker morale improves while exposure is diminished.

Who needs the ErgoAlign™ process? Organizations that have struggled to determine how to prevent exposure to over-exertion musculoskeletal hazards.

What makes the Ergo-Align™ process so unique? Its holistic nature: Not only does it provide a complete framework to help the organization internalize change, but it involves every level of the organization, from frontline workers and above.

Through its process, ErgoAlign™ helps all parties “see” the root causes of ergo related injuries that persist and it leads to solutions to mitigate the stressors in the environment or process that created them. Through education, skill-building, and exercises, the organization stops becoming reactive to these kinds of injuries and respectfully becomes more proactive in preventing them before they take place.

A healthier workforce results in a healthier organization. The ErgoAlign™ process creates the path forward for both.

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