



ERGONOMICS

## Update on Ergonomics, The Industry is Catching Up

THE OPTIONS FOR AMAZING ERGONOMICS FURNISHINGS ARE SEEMINGLY ENDLESS. YET, ERGONOMICS IS STILL A CONFUSING TOPIC FOR MANY PEOPLE.

by Emily Clingman

**Ergonomics is not a new concept.** The word ergonomics was coined by a Polish scholar, Wojciech Jastrzębowski, in 1857 and became widely known when his book in Polish was reprinted with English translation in 1997, according to the Japan Human Factors and Ergonomics Society.

Before that Italian physician Bernardino Ramazzini (1633-1714) wrote a book about the relationship between working conditions and pathology — labor and health. Research and development have gained traction over time, and here in the 21st century designers and manufacturers are working with ergonomists and medical professionals to create highly innovative and technical furniture.

The options for amazing ergonomics furnishings are seemingly endless. Yet, ergonomics is still a confusing topic for many people.

“I think that the general public’s understanding of ergonomics involves a chair and carpal tunnel syndrome,” said Carla Jaspers, founder and principal consultant of New York-based Workup Ergonomics. “Ergonomics can get muddled — like when food is called natural, what does that mean? And you can put that on anything, and consumers don’t really know.”

Jaspers’ background started in occupational therapy. She became certified in ergonomics early on and developed an interest in applications of ergonomics in the workplace. She also has a master’s degree in industrial design. Her experience in the clinical and design realms formed a perfect intersection to establish a niche in ergonomics consulting.

“We’re not just going in and saying this is an ergonomically compliant station and just checking off the list,” Jaspers said. “We’re looking really comprehensively at a workspace. We’re looking at how the employee experiences work. It’s not just the chair we’re concerned about, it’s the air quality, the lighting, the special variety in the office, their commute. What are they doing at home? Do they have hobbies or interests that are physical in nature? Are they caring for children, for elderly parents? There’s just so much comprehensiveness that goes into ergonomics that our firm works to shed light on.”

Jaspers describes classic ergonomics as a marriage of physical, cognitive and organizational elements. For instance, if you're going to call a chair ergonomic, it has to have certain dynamic features to promote comfort and adaptation to fit the 95th percentile. Height, seat pan, tilt, lumbar support — these key features need to be universal and dynamic.

“So, you start from there, then you get into eliminating risk factors in these work environments and with the equipment itself to prevent succumbing to prolonged awkward postures, tissue compression, repetitive force, which in time ... can cause injury,” she said.

According to the National Institute of Neurological Disorders and Stroke, about 80% of adults experience low back pain at some point in their lifetimes. It is the most common cause of job-related disability and a leading contributor to missed work days.

Many companies will focus on ergonomic task seating to curb problems like poor posture and back pain. That's a good place to start, Jaspers said, but even there companies can get it wrong if they have limited knowledge about ergonomics, or they chose a budget-friendly chair that lacks some of the key functionality features.

“I hate to be so trite, but you really do get what you pay for,” Jaspers said. “You're going to be better suited if you make the investment initially in a chair that has the adjustability features and an ergonomic buyback program, something more sustainable where you can get replacement parts, and work with a manufacturer of quality.

“Not only is that good business from an investment perspective, but also from an environmental perspective. It's probably poor advice to get the most budget equipment if you want ergonomic equipment because you're going to end up making the investment twice, if not more, and then you have disposable pieces of furniture. We're at a point where we need to get away from that model.”

Jaspers said the industry leaders right now are the ones who have buyback and refurbishment programs. She tries to push clients in that direction. If budget is a concern, as it always is, she tries to offer good, better and best options — finding the most stripped down, but still ergonomic chair first. You don't have to get the \$2,000 2019 model of the latest thing you saw at NeoCon, but you do need to at least have a chair with lumbar support, height adjustability and materials that are going to be long-lasting and sustainable. They are out there, Jaspers said, noting good chairs are on the market for under \$500.

“There are some new companies that are starting to offer that,” she said.

Even though the study and implementation of ergonomics has been around for a very long time, it's encouraging to Jaspers to see the industry respond to the research that more movement is better.

"So, we're getting away from sitting in a chair for eight hours," Jaspers said. "It's the advent of the active office. One of the more interesting developments is alternative seating throughout the office. You can have a task chair at your dedicated desk, but you can find different stool solutions for a meeting, or you might be standing for a while — an active office environment. Ergonomically, that's ideal. You want to break up the static as much as you can."

Investment in furniture is a good part of a shift in the workplace culture as organizations have become willing to make investments in furniture and training and other well-being amenities. Research shows humans perform better and function better cognitively if their body is allowed to move and change posture throughout the day.

"A big part of my business model is spending a lot of time with clients teaching them about portable ergonomics," Jaspers said. "Because you need the whole package. Yes, there are chairs that are just right. But what are your own personalized cues during the day about pain and discomfort? It's learning how to keep your body out of those danger zones."

The nice thing about the ergonomic chair market is every chair offers something different in the area of engineering. Jaspers said ergonomists need to be like investigators regarding what's on the market and what each client needs.

"It's not a luxury to bring on an ergonomist from the get go," she said. "I'm glad to see its moving in that direction. Companies are doing a lot for basic ergonomics, but they often overlook other high-level issues, like symptoms. They don't bring ergonomists in until there are issues. If they would bring on the ergonomist at the design phase it would be so much more advantageous. It's really hard to come in after a complete build out and convince a company it needs to spend even more money to fix problems."

Jaspers believes the industry has hit an interesting phase, where office design has hit its stride with the office — the chairs, desks, the peripherals.

"A lot of innovation had been made in that space but I think now the next wave is catering to the digital nomad workforce," she said. "I'm sure there are product innovations waiting to be discovered, but I think that's still an evolving area, especially for home offices, where people tend to go to big box office stores for cheap furniture." **BoF**