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Ergonomics at the Point of Care:  
How Equipment Designed with  
Ergonomic Principles Enhances  
the Caregiver Experience



On any normal day, working in a non-acute care environment can be a physically and mentally demanding experience. It is not uncommon for many caregivers to routinely go home with back pain, aching necks or sore muscles and joints. This is often the result of caregivers continuously working in uncomfortable positions utilizing poor ergonomics while accessing supplies, interacting with equipment or patients, or entering information into electronic medical records (EMR).

The healthcare community continues to make great strides in understanding and addressing this issue. Many of our healthcare customers tell us that ergonomics at the point of care is priority. However, executing on that priority can often be a challenging task, as a host of other day-to-day operational challenges and priorities rightly demand attention and resources.

One way you can create and maintain a more ergonomically friendly working environment is by identifying and purchasing equipment for your exam and procedure rooms that reinforces ergonomic principles and helps keep the well-being of you and your staff top of mind.

# Ergonomics and the Point of Care

While there has been growing attention toward the comfort and well-being of caregivers, the shift toward value-based reimbursement programs and a greater awareness for moving to a **Quintuple Aim** have accelerated that progress. This increased emphasis has placed staff well-being and satisfaction at the same level of importance as clinical outcomes, patient satisfaction and efficiency and profitability when it comes to optimizing the delivery of care.

At the same time, there has been a growing understanding that better care starts with a better-designed experience. This has resulted in design becoming a strategic component of the point of care ecosystem, especially the design of the equipment used in that environment. This alignment highlights the impact that the right kind of equipment, specifically designed for the healthcare environment, can have on the point of care experience for patients and caregivers.

But before we get into how certain equipment can help you create and maintain an ergonomically friendly environment for clinicians and staff, let's first address why this is such an important issue.

Healthcare workers are the most injured group of workers in the US, making this one of the larger challenges facing today's health systems. In fact, **one in five of all injuries reported in the US are healthcare-related injuries, with healthcare workers three times as likely as construction workers to suffer from work-related injuries.** The Centers for Disease Control and Prevention (CDC) has cited **falling on the job as one of the most common workplace injuries for healthcare workers.**

While injuries from workplace falls might be the extreme case, there are a multitude of injuries healthcare professionals encounter at the point of care, many of which are preventable when ergonomic principles are followed and reinforced. These include injuries caused from lifting patients, working in uncomfortable positions with poor posture, continuously straining and bending to reach supplies, and repetitive motions. Fatigue from long hours and inefficient workflows can also lead to injuries. While this was a growing problem before COVID-19, the emotional, physical and mental exhaustion put upon healthcare professionals by the pandemic exacerbated the issue.

It is not uncommon for a clinic existing on single-digit margins to incur **an average cost of \$69,500 for injuries that include sprains, strains, inflammation and carpal tunnel syndrome**. But the cost of these injuries goes far beyond the direct price tag.

An uncomfortable working environment at the point of care can have a negative impact on the well-being of healthcare workers, as well as productivity and efficiency levels. It can also create dissatisfaction among the staff, hindering employee retention and hiring efforts in an especially tight labor market. The working environment can even negatively impact the patient experience, including the quality of care delivered and patient-caregiver interactions—both at the heart of the point of care experience.

Front-line clinicians and caregivers are the face of your healthcare system or facility and can have a big impact on patient safety and satisfaction. Caregiver fatigue can potentially lead to inattentiveness and transcription or diagnosis errors, which could create a negative perception in the minds of patients that the quality of care delivered is not up to the desired level.





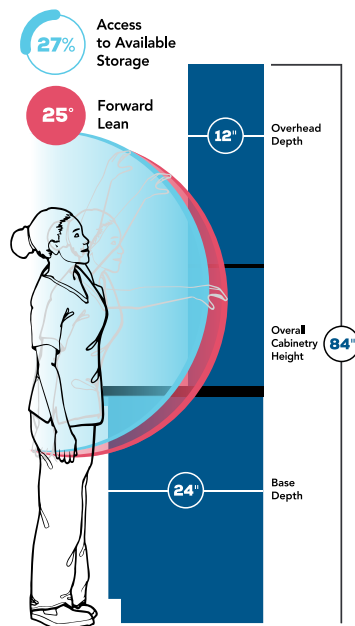
# Designing a Way Forward

The good news is—it does not have to be this way. You can populate your exam rooms with equipment that can reduce injuries by eliminating unnecessary stretching and stooping, and supporting better posture whether seated or standing.

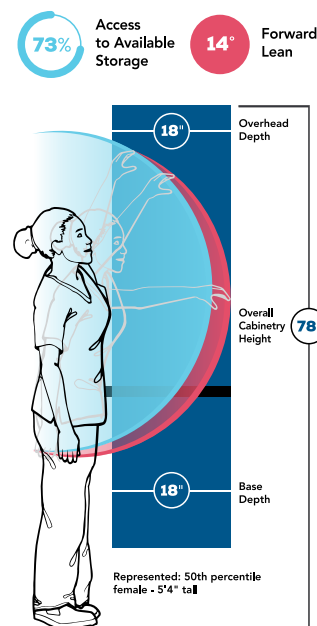
Our Midmark design experts study numerous healthcare facilities and speak with clinicians across the US to determine ergonomic issues that are not being addressed and identify elements and features that we could introduce or enhance to address these issues.

For instance, according to the Bureau of Labor Statistics, **76% of healthcare workers are female**, while the **average height of females in the US is just under 5'4"**. Our experts found that the typical cabinetry found in clinical environments was not designed for average height healthcare workers. In many instances, we noted that healthcare workers were forced to use stools or other devices to see or reach supplies on upper shelves of cabinetry. Additionally, **research shows** that nursing assistants have a five times greater risk of musculoskeletal disorders than other workers, which can be significantly reduced with the use of a height-adjustable exam chair. A height-adjustable exam chair can enable patients to transfer themselves onto and off of the exam chair reducing the need for nurses to lift or assist with patient transfer.

## Standard Cabinet Configuration



## Tall Hanging Cabinet Configuration



While **37% of a clinician's time in the exam room is spent on computers/EMRs**, most workstations used in clinical environments are not designed for today's diverse healthcare workers. The workstations support either a seated or a standing workflow for a limited range of staff heights, requiring most users to bend or stretch to reach supplies and equipment, crane their necks to read from a monitor, or hunch over to type on a keyboard.

These findings illustrate the need for equipment at the point of care that is designed or updated for today's clinicians and staff. Fortunately, there are a growing number of options available when it comes to promoting ergonomic principles at the point of care. When purchasing equipment, ask your providers about ergonomic features. And once you purchase that equipment, make sure clinicians and staff are properly trained on the ergonomic features so ergonomics and comfort remain top of mind.

Following is just a sample of ergonomic features to look for when considering new equipment.

- Exam chairs that are fully adjustable to prevent caregivers from having to overreach, twist or bend their back or torso too much during exams, and can lower to a height that allows patients to transfer to the chair without being lifted by a caregiver.
- Mobile workstations that allow proper working positions so as not to cause unnecessary strain on the caregiver's back, shoulder or neck, and have fully adjustable arms to allow monitors to be easily positioned for both sitting and standing postures.
- Cabinetry that is designed to enable caregivers to easily reach frequently accessed supplies without unnecessary bending or stretching or constant overreaching.
- Clinician stools that are easily adjustable and maneuverable to allow caregivers to find the most comfortable working height and maintain neutral postures, while also providing a backrest to promote better posture and support the back.



# The Proof is in the Design

As a leading medical solutions provider focused on the design of the clinical environment to improve the healthcare experience, Midmark works closely with healthcare staff and ergonomic experts to design exam room equipment based on ergonomic principles to provide a more safe, comfortable and efficient environment. We take an evidence-based design approach to ensure design decisions are based on proven research and best practices. Midmark's director of design and human factors leads design efforts with user experience understanding across the organization.

We are committed to designing equipment that adapts to clinical staff—not force staff to adapt to the equipment. Two examples of this design approach are Midmark® Workstations and Synthesis® Wall-Hung Cabinetry.



**Midmark Workstations** support seamless patient-caregiver interactions, facilitate the deployment of new technology, reduce safety issues and eliminate unnecessary straining. They are ergonomically designed to support the needs of nearly all users (95%), from those with heights in the 5<sup>th</sup> percentile (5'0" female) to the 95<sup>th</sup> percentile (6'4" male)—and everyone in between.

**Ergonomic features include:**

- An intuitive guidance label and lever to allow for an easily adjustable workstation height that requires little force.
- Easy vertical adjustment, tilt and rotation functionality to promote proper posture with neck, shoulder, arm and wrist alignment.
- 180 degrees of left-to-right monitor rotation to promote content sharing and continuous eye contact between provider and patient (workstation models with a monitor arm).



**Synthesis Wall-Hung Cabinetry** incorporates ergonomic principles and is designed for average height healthcare workers who interact with cabinetry in the medical space, creating a better caregiver experience at the point of care. The line of cabinetry features base and tall cabinets that better position the most-used areas of storage for easier reach by physicians and staff.

**Ergonomic features include:**

- A lower upper height and more shallow cabinet depth to improve access to storage with less reach and lean required.
- Gravity-fed, angled flow shelving that improves visibility and access to supplies, even for items stored toward the back of the cabinet.
- Lower countertops with clearance underneath that improves forward reach, allowing patients and staff using mobility devices to easily access items on the counter surface.



**Contact us to learn how Midmark can help your point of care become a more ergonomically friendly environment for clinicians and staff.**





Designing better care.®