HUMAN FACTORS and ERGONOMICS SOCIETY

Policy Statement:
Protecting Workers When Working from Home

Background:

Even as the recent pandemic has subsided, millions of workers continue to work remotely from home, with some estimates indicating that more than 55% of these remote workers will continue telework into the future[1]. Overall, about 43% of U.S. workers have the ability to work remotely, with some occupations above 70%[2]. While many occupations (e.g., manufacturing, construction, warehousing) are less likely to work from home, 38% of management, business, and financial operations, and 35% of professional workers work at least partially remotely[1].

Remote work, work from home, virtual work, or telecommuting (hereafter referred to as telework), involves using technologies such as desktop computers, laptops, tablets, or smartphones for work that is completed outside the employer's buildings[3.] Telework allows workers to save time and money otherwise spent on commuting, and during the pandemic it also reduced COVID-19 risks from employees gathering at work. The rapid increase in telework during the pandemic, however, negatively affected many people who were not adequately prepared to adopt to this new and unfamiliar work mode with complete physical and social separation from the organization[16,17]. **Human factors and ergonomics considerations need to be addressed, as many teleworkers are being asked to work from home with little support for setting up a workstation, ensuring a safe work environment, or protecting their physical and psychological health and social well-being [4,5].**

Telework has several advantages over traditional brick and mortar offices — greater work flexibility, improved job satisfaction, work-family balance, productivity, and reductions in fatigue[6,7,8]. However, the negative mental and physical health and safety impacts of telework are significant, such as a sense of isolation, extended work hours, high demand and low control over work, poor workspace setup and lack of organizational support[7,9]. Telework arrangements often do not meet the same occupational safety and health standards as work in conventional workplaces. Thus, both employers and workers play an important role in establishing and implementing telework practices to protect and promote safe and healthy telework behaviors, social wellbeing, and performance[10].

A frequent problem is that telework often involves makeshift workstations that are not ergonomically designed. For example, they often involve a computer atop a kitchen table, a laptop used in a recliner, work being completed while sitting in a bed or on the floor, and sitting in a common household chair[11]. Awkward postures while operating a computer or laptop can cause musculoskeletal symptoms such as stiffness, soreness, back pain, neck pain, and eye fatigue. Laptop use while seated on a couch, causes awkward wrist postures while typing on the keyboard or using a touchpad, causes the arms to not be supported, and places stress on the upper back and neck[12]. Long-term use of laptops and using laptops for long durations in individual settings increases the risk of musculoskeletal discomfort when performing office work[13,14]. None of these types of arrangements are geared towards completing a full day of work, especially from an ergonomics perspective, and can lead to increases in worker injuries such as musculoskeletal disorders (MSD), eye strain and other injuries[10].

When telework is planned, organized and implemented in a thoughtful manner, telework can be beneficial for worker's physical and mental health, performance, and social wellbeing, as well as beneficial for organizations. To achieve these benefits requires attention to work system design to addresses the complexity of telework, including the physical environment, work organization, social interactions, performance issues and organizational support. Attention to human factors and ergonomics issues from both

an individual worker and organizational perspective is essential to support and protect workers to ensure their wellbeing and performance and to achieve the benefits of telework.

Recommendation:

The Occupational Safety and Health Administration (OSHA) needs to ensure companies are protecting their virtual workers through proper ergonomics. Companies should accommodate workers in their home office similar to when on company properties, which means they must follow the "General Duty Clause" (Section 5). The best way to successfully accommodate teleworkers' physical and mental health and social wellbeing is through a human-centered approach that addresses the characteristics of the job, physical, environmental, and psychosocial issues, and organizational factors[5,7,15]. Human factors & ergonomics practices should be incorporated in the design of tele-workstations, environments, jobs, as well as good psycho-social, and organizational practices.

About the Human Factors and Ergonomics Society (HFES)

With over 3,200 members, HFES is the world's largest nonprofit association for human factors and ergonomics professionals. HFES members include psychologists, engineers and other professionals who have a common interest in working to develop safe, effective, and practical human use of technology, particularly in challenging settings. Members of HFES play a leading role on the development of guidelines and standards and are active in national standards organizations, such as ASTM, ANSI, NEMA, and ISO.

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