

Wearable Technology—Changing How We Work

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Wearable technology, including fitness apps trackers and other wireless communication, gives everyone the ability to do things more efficiently. In 2020, 22.6 million smartwatches, the most popular wearable technology, were sold in the United States alone. Total sales of all wearables are estimated to reach \$73 billion in 2022. What may not always be apparent is that these advances in technology can help insurers better assess the risks they are writing, as well as lead to healthier and safer workplaces. Helping clients understand the uses for and advantages of wearable technology, as well as the potential risks involved, is another sign of the true insurance professional.

Wearable technology includes sensors that can be used to provide a variety of information including physical activity level and location of employees, or sensors that record health statistics such as blood pressure, temperature or heartrate. Information can be transmitted to employers or healthcare providers. The technology can also provide data to assess how body parts are functioning.

The construction industry is ideal for wearable technology, as many construction workers already wear personal protection equipment, and these can be adapted to include the new technology. The U.S. Occupational Safety and Health Administration (OSHA) statistics reveal that 1 in 5 worker fatalities in 2018 occurred in the construction industry. The “fatal four” most common causes of injury are falls, struck by, electrocution and caught in/between. OSHA estimates that use of wearables to prevent/reduce these accidents could save 631 lives per year (<https://blogs.cdc.gov>).

Contractors who demonstrate that they are reducing their risks by using wearable technology may be eligible for lower insurance premiums, especially workers’ compensation.

Wearable technology can assist with compliance with COVID protocols, as they may be able to identify if social distancing is not being followed, and possibly assist with contact tracing. In the event of a fire or other dangerous event, users’ locations can be pinpointed to determine who may be in danger.

The use of wearable technology in the construction industry is growing rapidly. Sales are anticipated to be \$54 billion by 2023, nearly doubling the size of the industry in just five years (<https://constructionglobal.com>). Examples are smart glasses that enable workers to see blueprints or designs in front of them as they work. The glasses could possibly be equipped with sensors to evaluate the lighting and other environmental factors. Wearables may also be used to sense exposure to other potential hazards, such as silica dust and dangerous gases.

Exoskeletons are wearable technology that is also gaining in popularity. There are many different types, but, in general, exoskeletons work together with the user. In contrast, robots replace the user. Exoskeletons use robotics and biomechanics to augment the user’s abilities to perform tasks (www.exoskeletonreport.com). Exoskeletons can be made of rigid and/or soft material, and used on various parts of the body. According to the



National Institute of Occupational Safety and Health (NIOSH), exoskeletons can increase productivity and reduce injuries (www.cdc.gov). They can assist with holding heavy tools or amplify physical force of the workers’ arms and shoulders, or be used on an ankle hip or leg. (www.hetiservices.com).

Manufacturers of wearable devices can be liable for damages caused by devices that do not work properly. These companies need to be sure to engage in extensive product testing as well as provide clear instructions for proper use. Insurers should include safety protocols in their underwriting criteria to reduce the possibility of claims. For example, exoskeleton wearers may be at risk of chemical burns from leaking batteries. They may also be cumbersome and limit the wearer’s ability to get out of the way in case of danger.

Wearable technologies can change how businesses operate, and increase safety of their workplace, in turn reducing insurance premiums. Helping clients understand and take advantage of the benefits of wearable technology is another sign of the true insurance professional.

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