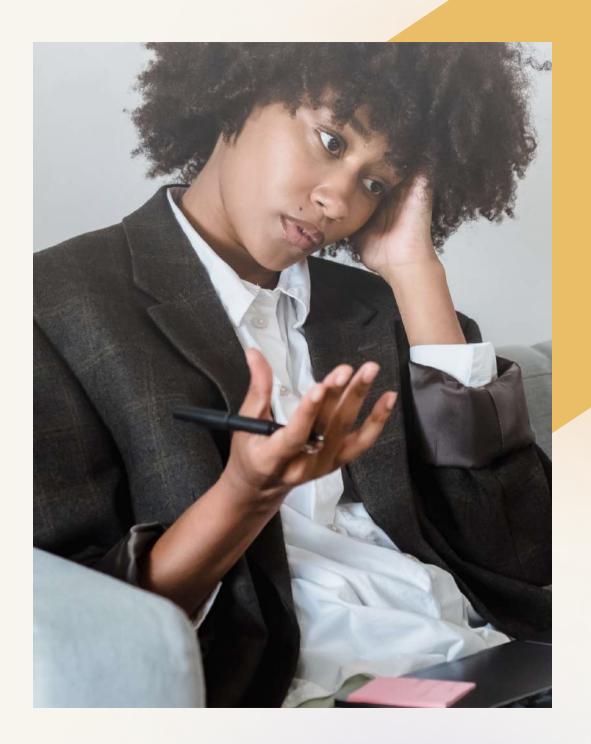
# ) tuned

The Invisible Workplace Danger: **Hearing Issues** 





Noise is a risk in every workplace, not just factories.

With knowledge workers on video calls and wearing headsets all day, noise exposure is a problem for everyone. It can cost your employees their hearing and your company its profitability. Yet this type of hearing loss is preventable.

Missed auditory cues, safety risks, emotional fallout, listening fatigue, cognitive impairment and falls in the workplace. They're all a risk to your employees' well-being, the company's reputation, and there's the cost from lost productivity and mistakes.

Studies show untreated hearing issues cost employers an extra \$368-\$2200 per year, per employee.

This is before litigation, healthcare costs, and workman's comp/disability claims.

All of these risks can be mitigated, for a fraction of their cost, by providing hearing care as a benefit.



It's the invisible workplace danger that's also one of the most common. Noise is a risk in every workplace, not just factories. With everyone wearing headphones or earbuds for prolonged periods, on Zoom calls or just listening to music, even a seemingly quiet office can be too loud for the people working in it.

Hearing loss related to noise exposure continues to be a problem (1,2) and getting workers to wear hearing protection or to educate them on safe listening practices isn't commonly done outside of certain industries, resulting in more and more people with hearing loss. Yet hearing loss caused by noise is the only type of hearing loss that can be prevented and employers can help prevent the loss of critical communication skills.

What's the impact of preventing hearing loss? Consider this. The economic impact of hearing loss is a burden in the region of \$750 billion annually. That's the same as the GDP of the Netherlands, or the health expenditure of Brazil and China combined.

The effects of hearing loss in the workplace are far reaching. It results in lost productivity and increased safety risks (3,4). It places a strain on working relationships with colleagues and can lead to a feeling of isolation. This strain is repeated at home with loved ones, and often leads to a deterioration in mental health.

Hearing loss has long been considered an issue for older employees. Unfortunately, this is most definitely not the case. 60% of those with hearing loss are below retirement age, while an increasing number of teens (ages 12–19) are preparing to enter the workforce with some degree of hearing loss already present.







of those with hearing issues are within working age



### Hearing Loss & Safety

Consider what hearing does for all of us. The ability to hear makes it possible to detect and recognize meaningful environmental sounds, to identify the source and location of a sound and, most importantly, to perceive and understand spoken language. The ability of an individual to carry out auditory tasks in the real world is influenced not only by his/her ability to hear, but also by a multitude of situational factors such as background noise, competing signals and room acoustics.

Hearing loss doesn't only cause communication breakdowns on the factory floor either.

It bappens in Board Rooms all over the country and in virtual meetings wherever they are held.

Let's talk about the environment. The acoustic make-up of a room is important. It can either help or hinder how well a person can hear. Using an audiologist to design a better sound treated workplace, is possible for small additional spend. More and more workplaces and employees are considering the benefits of sound abatement, particularly those with open office concepts, or hybrid work options.

Beyond the environment, hearing impacts the actual work being done. If employees cannot follow directions from managers, or communicate well with coworkers, costly mistakes happen. For employees in a manufacturing facility or other workplaces involving heavy machinery, power tools or vehicles, they could miss the all important first audible alert that something is wrong. The inability to hear warning sounds increases the dangers to them and others around them. When communication breaks down from hearing loss, lives are put at risk.

Hearing loss doesn't only cause communication breakdowns on the factory floor either. It happens in Board Rooms all over the country and in virtual meetings wherever they are held. It might not result in bodily harm but the financial fallout can be significant.



This is because of the risk at the very top. The average C-suite member is 56 years old and has an average tenure of 4.9 years. The average CEO is 59 years old (12).

This places them at an age where hearing loss is known to be prevalent and cognitive decline is more likely to occur, precisely when they are leading organizations and making decisions that affect thousands of employees and millions, if not billions, of dollars.

In addition to physical harm, employees with hearing loss can see their overall quality of life significantly compromised. They might miss important information in meetings, struggle to follow conversations with colleagues and engage on a basic level. This can leave them feeling excluded, demoralized, isolated and depressed.

The emotional fallout is often overwhelming and can be seen in the statistics, with people with hearing loss 4 times more likely to be unemployed (5), in addition to being 4 times more likely to see their marriage end in divorce (6).

Hearing loss caused on the job can affect the well-being of many. In addition to mistakes leading to production and financial risks, a company puts itself at legal risk from anyone who may be harmed or injured.

### Financial Impact of Hearing Issues

Studies show those with hearing loss earn significantly less income over the course of their careers, when compared to colleagues with no hearing loss. The greater the loss of hearing, the greater the loss of income. Untreated, this can amount to a decrease in income by as much as \$30,000 per year.

The societal cost is estimated to be as high as \$26 billion every year, through unrealized Federal Taxes and an estimated aggregate yearly income loss of \$176 billion due to underemployment (7).

The greater the loss of hearing, the greater the loss of income.

Untreated, this can amount to a decrease in income by as much as \$30,000 per year.



The financial burden on employees, employers, and society at large is not limited to hearing loss. Hearing issues such as tinnitus also carry an economic impact. For example, in 2012 the United States Department of Veterans Affairs (VA) spent \$1.2 billion on tinnitus-related compensation to veterans (8). We already know that 1 in 4 working age (18–65) individuals in the workplace has tinnitus, so employers are spending even more.

Any hearing issue will have an accompanying financial burden through specialist costs, drug and device costs, travel and time related costs, plus the linked loss of income. We can be confident that the best way to mitigate these costs is by proactively managing an employees hearing health.

#### Listening Fatigue

This might be the fastest growing, and costly, result of noise in the workplace. Listening fatigue is a consequence of listening for long periods of time, not necessarily at high volume, and results in the brain needing to 'take a break'. Although listening fatigue can happen to anyone, employees with hearing loss face an additional challenge because it happens faster, over a shorter period of time. They tire quicker.

Why? Well, listening with hearing loss means the brain must allocate more cognitive resources to understand what is being said, and has to work harder to process information, causing stress and leading to more rapid mental and physical fatigue.

Listening fatigue is a consequence of listening for long periods of time, not necessarily at high volume, and results in the brain needing to 'take a break'.

Signs of listening fatigue include:

- → Low energy
- > Exhaustion at the end of the day
- → Unexplained tiredness after conversations or events
- → Increased stress levels
- → Mood swings
- Difficulty concentrating
- → Sleepiness
- → Listening but not registering
- → Withdrawn
- Reduced work performance

Listening fatigue is real and measurable.

We know sufferers will be less motivated and productive.
Additionally, they place themselves and colleagues at greater risk of injury in the workplace.



#### Mild Cognitive Impairment

Dementia is one of the greatest challenges for health and social care in the 21st Century. There are an estimated 50 million people living with the condition worldwide, a number likely to grow three-fold to nearly 152 million by 2050. As this happens, employers must contend with the growing challenge of cognitive decline in the workplace. Hearing loss and cognitive impairment often co-exist, with a huge impact on people, their families, workplace and the economy as a whole.

Further, there is a growing number of individuals now working past retirement age, while even those working up until working age are progressively getting older: the retirement age continues to increase, and is set to reach 69 by 2030. The aging workforce is highlighted by the fact that over 31% of physicians are over 60, 15% of attorneys are over 65, and the average age of federal judges is 69(9).

The youngest mean age in which the presence of hearing loss was shown to increase dementia risk is 55 years (10).

Even mild levels of hearing loss increase the long-term risk of cognitive decline in individuals who showed no signs of any issue with cognitive function at their first hearing test (11).

Research is ongoing to unravel the interactions and common mechanisms of cognitive decline and hearing impairment, but current studies suggest the following:

- → Increased cognitive effort
- Changes in brain structure and function in areas related to hearing
- Common genetic and pathologic causes such as cardiovascular disease and diabetes
- → Social disengagement due to communication difficulties

Cognitive decline in the workplace can lead to large risks for employers. In addition to safety risks, there are more allocation of resources necessary to accommodate the worker with cognitive decline.

With hearing loss being linked to cognitive decline, it is prudent to incorporate hearing testing and benefits in every benefits package.

Hearing loss and cognitive impairment often co-exist, and employers must begin to consider how to support employees as the retirement age increases.



#### Hearing & Balance

The balance system is housed together with the inner ear, causing a symbiotic relationship between the two systems. So it shouldn't come as a surprise that hearing issues can play a role in balance, which can increase the risk of falls on the job.

Individuals aged 40–69 with a mild hearing loss are three times as likely to report falling in the past year (13). As their hearing worsened, the risk of falling increased. These falls generate billions in health care costs each year. Additionally, every fall carries with it potential exposure to a lawsuit, legal costs and reputational damage.

Employees who don't hear well might not have a good awareness of their overall environment, which makes tripping and falling more likely. Most take gait and balance for granted but both are cognitively demanding, even if you don't consciously appreciate it.

Individuals aged 40–69 with a mild hearing loss are three times as likely to report falling in the past year.

Hearing loss is already known to impose an increased cognitive load, leaving fewer resources to help maintain gait and balance. It places employees with hearing loss at greater risk of falling on the job.

#### Hearing & Balance

Federal tax credits and deductions for employers to help offset the cost of accommodations for employees with hearing loss are available. Some states also offer tax incentives (14). In addition, most states have some form of vocational rehabilitation for individuals with hearing loss and other disabilities and many offer workplace training for companies and employees, as well as having equipment and technology to try.

Even in the absence of incentives, protecting employees and your company from 'the invisible workplace danger' makes financial sense. A comprehensive hearing healthcare benefit program like Tuned can offer screenings and recommendations for both the employee and employer that will increase productivity, create safer workplace environments, reduce legal exposure, and provide solutions for both the employer and employee.

The cost? Less than a dollar per employee per month, making Tuned one of the most effective risk mitigation strategies any employer can take.



## **Bibliography**

- 1. https://www.cdc.gov/niosh/topics/ohl/overall.html
- 2. https://hearinghealthfoundation.org/hearing-loss-in-the-workplace
- 3. <a href="https://ehsdailyadvisor.blr.com/2018/10/hearing-loss-impact-employee-safety/">https://ehsdailyadvisor.blr.com/2018/10/hearing-loss-impact-employee-safety/</a>
- 4. https://www.cdc.gov/nceh/hearing\_loss/public\_health\_scientific\_info.html
- 5. https://hearingaidassociates.com/blog/the-effect-of-hearing-loss-on-relationships/
- 6. <a href="https://www.hear-it.org/hearing-loss-affects-job-opportunities">https://www.hear-it.org/hearing-loss-affects-job-opportunities</a>
- 7. https://hearinghealthfoundation.org/workplace-hearing
  - loss#:~:text=Employment%20and%20Economic%20Costs&text=Untreated%20hearing%20loss%20can%20decrease, %24176%20billion%20due%20to%20underemployment.
- 8. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8297244/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8297244/</a>
- 9. https://blog.petrieflom.law.harvard.edu/2022/02/03/managing-cognitive-decline-concerns-in-the-workplace/
- 10. Gallagher, J.; Ilubaera, V.; Ben-Shlomo, Y.; Bayer, A.; Fish, M.; Babisch, W.; Elwood, P. Auditory threshold, phonologic demand, and incident dementia. Neurology 2012, 79, 1583–1590.
- 11. Lee, K.Y. Pathophysiology of age-related hearing loss (peripheral and central). Korean J. Audiol. 2013, 17, 45–49.
- 12. https://www.nasdaq.com/press-release/age-and-tenure-in-the-c-suite:-korn-ferry-study-reveals-trends-by-title-and-industry
- 13. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3518403/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3518403/</a>
- 14. <a href="https://www.irs.gov/businesses/small-businesses-self-employed/tax-benefits-for-businesses-who-have-employees-with-disabilities">https://www.irs.gov/businesses/small-businesses-self-employed/tax-benefits-for-businesses-who-have-employees-with-disabilities</a>



# ) tuned

Tuned's Telehealth platform offers clinical hearing screenings, preventative and pediatric care, care for tinnitus, auditory processing disorder, mild-to-moderate hearing loss, and other conditions.

The care is coupled with traditional device options, vetted OTC products, software, OSHA screenings, and more, to deliver truly comprehensive hearing health care.

Today over 1.4 million people have access to Tuned through their employee benefits.

Tuned is a private company headquartered in New York City, with audiologists across the country and worldwide.

For more information visit:

WWW.TUNEDCARE.COM