

Next-Gen Ergonomics Training to Improved Productivity, Health & Wellness

*Redefining Office Ergonomics Training Needs for a 21st Century
Mobile Workforce*



BEYONDERGO

Executive Summary/Introduction

Corporate health and wellbeing programs are increasingly popular as employers acknowledge the link between improved health and wellness, and increased productivity, reduced turnover, reduced costs, and greater employee satisfaction. The mainstay of workplace health and safety has always been the prevention of injury and illness. The core goal of proactively identifying and eliminating/minimising workplace hazards to prevent harm is now instilled into the promotion of employee health and wellness.

However, the promised benefits of wellness and injury prevention programs are not always realised. One such example is the use of office ergonomics training for computer users. Considered an essential injury prevention tool, these programs have not provided the expected decrease in rates of discomfort and injury, or return on investment.

This white paper used contact centres data to demonstrate the current and growing costs associated with levels of discomfort and injury experienced by computer users in the workplace. The identification of new risk factors associated with increased screen use and sedentary work has created an urgency to address this issue. To find new management strategies, this paper explores why current training has failed to address these issues in the past and suggest a new perspective. A need to change focus from traditionally isolated training moments to new comprehensive and integrated injury prevention solutions. This change will help business arrest the already significant and increasing costs of work-related discomfort and injury among computer users. It goes on to ask:

What would a cost-effective injury prevention program for computer users look like?

Grounded in PhD research and informed by industry needs and experience, this paper introduces the concept of a new multidisciplinary injury prevention program for computer users to help:

Avoid the modern health epidemic associated with current and increasing screen use and sedentary work.

Background

Contact (call) centres data provides a useful background to this paper as the industry provides significant employment in Australia and epitomises computer intensive work environments. Due to the intensity of the work, contact centres demonstrate the significant cost to businesses with of existing and increasing levels of injury and illness associated with modern work environments.



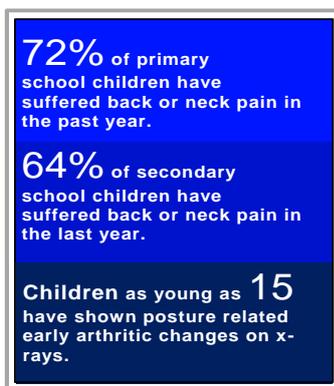
The IBIS World¹ market research report [2] stated the Australian contact centre market consisted of 623 businesses and achieved annual revenue of \$891m. While it goes on to report the industry employs over 10,000 people, the Australian Contact Centre Association places this figure closer to 250,000 employees, noting that “It’s difficult to get an exact number - given that the definition of a contact (call) centre varies greatly within different industries”[3].

The overheads associated with running a contact centre include facilities, technology and maintenance, telecommunications and networking. Most tellingly, **it is staff and labour costs that constitute the major expense, accounting for up to 80% of contact centre costs** [4]. Therefore, any issue affecting labour costs has a **considerable impact on the competitiveness of that business.**

Employers work hard to ensure employees have task-specific work skills and a safe, healthy work environment. In contact centres, despite significant investment in workstation fit-outs, ergonomic training and wellness programs, **health care costs are substantial, and business already experiences** higher than average staff turnover, absenteeism and presenteeism. On average, **contact centre agents take an additional 3.3 sick days per year compared with private sector employees** [5] and **average tenure is anywhere between 18 months and 3 years** [3].

High rates of musculoskeletal discomfort and injury experienced by agents contribute to these costs. **MSD’s** (i.e. musculoskeletal disorders) and **WRULD** (i.e. work-related upper limb disorders or soft tissue injuries) **are recognized as the most significant negative health issues associated with the use of personal computers** [6, 7], and considered a major contemporary occupational health problem [8].

New health risks associated with screen use and increasingly sedentary work illustrate the phrase “**sitting is the new smoking**” is commonly used to highlight the relationship between



<http://ergonomics4kids.com/>

long periods of sitting and **an increased risk of heart attack and stroke, a range of cancers (including endometrial, breast and prostate cancer), type 2 diabetes, obesity, poor mental health (including depression) and unhealthy eating habits.**

While there is growing concern generally, this trend is especially concerning for any business that by necessity requires employees to work in static postures for extended periods. Statistics from government Healthy Worker initiative [9] show **77% of agents working in the communication industry are considered physically**

¹ IBISWorld is one of the world's leading publishers of business intelligence, specializing in Industry research and Procurement research. Since 1971 IBISWorld has provided thoroughly researched, accurate and current business information.

inactive and 58% are considered overweight or obese.

In addition, human resource managers must now consider health issues of future employees. Gen Y employees are reportedly entering the workforce with existing injuries due to high screen use [10] and the Victorian Government Better Health review [11] suggests an association between screen use and childhood overuse injuries of the hand, back and neck pain and headaches. The Cardinus and Health & Safety Laboratory report children as young as 15 showing posture related early arthritic changes[12].

Growing Awareness

Information about the health risks associated with screen use and possible management strategies increasingly appear in industry journals. Understanding the full economic and humanitarian burden of these workplace health and safety issues is complex yet paramount. Research shows **risks factors** associated with long hours of computer use **act independently and accumulatively** and will increasingly affect our current, aging and future workforce.

Currently, businesses record the financial burden of health, wellness and injury events through staff turnover, worker's compensation payments and return to work programs. Many also carry the cost of wellbeing talks or events, specialised equipment (e.g., sit-stand workstations) and subsidised medical and allied health services (e.g. doctors, physiotherapy). To assist businesses to calculate the full initial, and often overlooked and uninsured costs of real and potential workplace injuries, Work Cover Qld created an injury cost calculator². This calculator utilises includes the incident costs, investigation costs, damage cost, replacement costs and finally productivity costs.

While the direct costs of workplace injuries are substantial, the indirect costs of lost productivity, absenteeism, staff training and presenteeism can be up to five times the value of the direct costs [13].

While these are costs borne by the employer, the majority of them associated with work-related injuries is largely born by the individual employee (i.e., workers bore 77%) [14]. For those experiencing a disabling MSD, "studies show ... their incomes [are] reduced by up to 40% over a five year period, which translates into a drastic and long-lasting impact on their ability to provide for their family and their quality of life as a whole.[15]"

Changing Focus

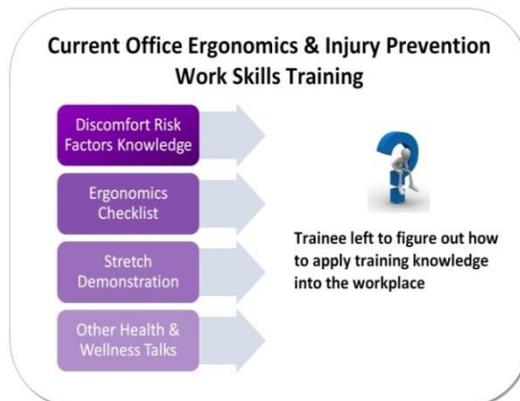
Statistics related to workplace injuries are not new to employers and the burgeoning corporate health and wellness industry demonstrates an increasing demand for new prevention strategies. As businesses shift focus from regulatory requirements to promoting voluntary health promotion, there is a growing range of wellness talks and programs.

² https://www.worksafe.qld.gov.au/data/assets/pdf_file/0003/82569/ind-cost-calc.pdf



However, office ergonomics training (especially in contact centres) remains an established training element. Delivered at induction and reviewed as a yearly KPI, this knowledge as an injury prevention tool is obviously considered important.

So why has business not realized the promised benefits of office ergonomics programs provided in-house or via specialist-training consultant?



The current approach to defining training needs has limited advantages for business. For employers to capitalise on the potential financial and humanitarian benefits promised by training, they must move beyond calculating the cost of individual injury events or training moments, to identifying and designing holistic preventative strategies that become part of integrated injury prevention protocols.

Presently, there are four important issues prevent this shift. The first three of these being 1) current limits to training content, 2) the style of training delivery and 3) a lack of training outcome reporting.

When combined, these three elements reveal a more significant problem. The problem of what businesses considers to be training best practice. Ergonomics and wellness training is delivered as single knowledge presentations, isolated training moments, instead of multidisciplinary injury prevention interventions. Dr Ron Loeppke, (ACOEM Conference, April 2017) notes “random acts of wellness don’t work, but evidence-based wellness approaches do”[16]. For example, poor office ergonomics is just one risk factor leading to work-related MSDs among computer users. Yet current training focuses on ergonomics, provided as a cursory overview or at best, as an online checklist.

Research shows 86% of contact centre agents still experience physical discomfort even after training and less than 10% implement ergonomic training they have attended into their day-to-day jobs [1].

In addition, the “**traditional approach** to musculoskeletal health management is to **reactively treat injuries as they occur**”. “**This treatment model is failing us [15]**”, and is contrary to the new health and wellbeing trend focusing on prevention. Again, as an example, common office ergonomic training provides a set of generalised written recommendations. There is no demonstration, no coaching to ensure implementation and no support or reporting to ensure benefit. As a result, trainees are

unsure how to apply recommendations and when they do attempt to make changes, the lack of guidance may result in actually increasing the chance of developing an injury.

Rethinking Training

The need to reduce the labour costs associated with workplace illness and injury has become increasingly urgent as new research reveals a growing range of risk factors and chronic illnesses linked to long hours of screen use and modern sedentary work.

But, how can training support the management of workplace risks, reduce labour costs and enable each employee to build new injury prevention skills needed to reduce pain and increase productivity?

Successful injury prevention programs incorporate management leadership, worker participation and education, and hazard identification, assessment, hazard prevention and control. Effective programmes are also regularly re-evaluated improved.[17] For computer users, the first step is education. Programs must first provide a range of knowledge about issues that directly affect personal comfort and safety while working at a computer. In this way, no matter where the trainee works, they can assess that workspace. This knowledge must include the hazard identification and control in the work environment, recommendations for setting up and working on a computer workstation and behavioural skill (everything from positive work routines to injury management).

Training must then progress from knowledge overviews to practical application with guaranteed training transfer and refinement of recommendations through personalised one-on-one coaching. An ongoing process of review and mentoring creates an obligation to apply and refine new work skills to ensure the development of injury prevention habits.

With the increasing use of home computers and flexible workspaces, these skills must transfer automatically to any work (or play) situation.

Programs must develop new injury prevention work skills and build integrated safety programs to manage or eliminate injury and chronic illness risks.

Programs must also incorporate training assessments and identify lead (i.e. a measure preceding or indicating a future event), and lag (i.e. incidents in the form of past accident statistics) indicators to help eliminate risks and refine training and risk managing tools.

A New Design

Dr Kirk [1] worked closely with industry stakeholders and reviewed a wide range of contemporary literature to identify the new work skills that computer users need to minimize or eliminate risk factors leading to discomfort and injury, to build wellness work behaviours and training methods to overcome barriers to training application.

A unique skill-based program, **focused specifically on the needs of computer users**, was designed and trialled. From these trials, **fun, interactive and practical programs were developed. Designed to have immediate and ongoing wellness benefits, the program guarantees training transfer and blends easily with existing in-house OHS protocols.**



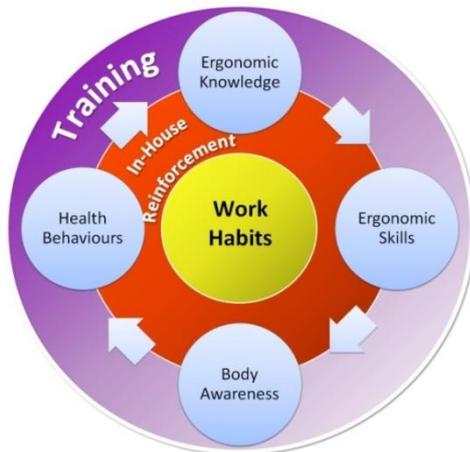
You can't ride a bike after reading a book and watching a video!



Ergonomics Skills are the same

The knowledge is just the start

Promoting wellness and injury prevention needs more than a talk. To build work skills that trainees can and do implement requires a VET style of program. These programs first build knowledge (*Tell Me*), then provide



- *Show Me*, Demonstration,
- *Let Me*, Trial
- *Check Me*, Feedback
- *Support Me*, Ongoing practice, review and reinforcement

This program does so much more. The truly unique aspect of this training is its ability to translate all the recommendations into actions that are easy to understand and easy to apply. It then uses the trainee's own body (anthropometry) and work tools to refine recommendations to meet personal needs.

The personalised coaching does more than guarantee training transfer. Coaching includes feedback on work posture and routines to ensure trainees can establish a recommended relaxed neutral work posture. Trainees also start to build the body awareness, (proprioception) needed to correct poor work posture in the future.

Recommendations only make it possible to decrease the chance of injury.

A trainee with the skills to apply those recommendations makes the real difference in the workplace.

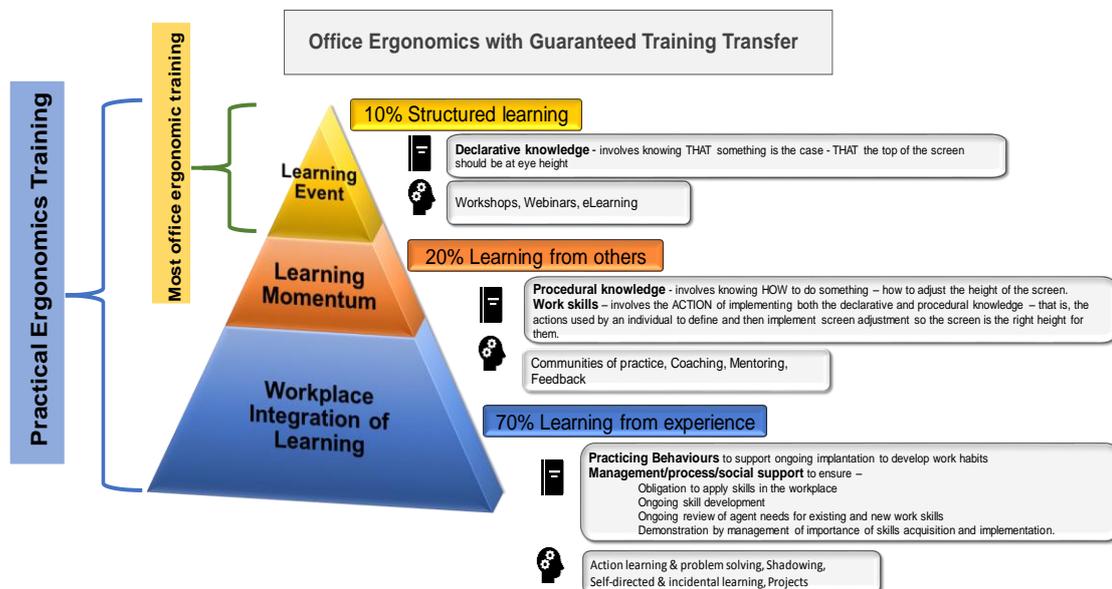
Finally, through ongoing coaching, skill development and reporting, trainees build the ability to identify risks in their work environment, set-up any workstation in a way best suited to their needs and tools, and use new behavioural skills to minimise if not eliminate discomfort and chance of injury.

Trainees build the new injury prevention skills needed at work, at home and on the run.

The integration of this training into OHS protocols means businesses now have employees with injury prevention skills, a team that acts proactively to prevent harm, and human resource procedures that no longer have to respond reactively after an injury has occurred.

Business now has the option of an injury prevention program where all stakeholders can work together to deliver the promised decrease in workers compensation, healthcare costs, absenteeism and staff turnover, as well as improve productivity, staff morale and employee relations. In addition, because this program was developed through PhD research, the business can suggest they provided the latest employee care training available with statistically proven positive wellbeing outcomes. This might be an important argument when negotiating a reduction in insurance premiums or managing a WorkCover claim.

Programs Grounded in Research and Shaped by Industry Experience and Needs



The Benefits to Business

The growing awareness of health risks associated with our increasingly sedentary lifestyle is combined with **the increasingly quantifiable benefits of incorporating health and wellbeing initiatives into workplace training.** The Queensland Government “Healthier. Happier. Workplaces”³ initiative **notes workplace wellness programs are especially beneficial when integrated with work health and safety programs, and those benefits include:**

- greater productivity
- reductions in work-related ill-health and injuries
- lower workers compensation costs

³ <https://workplaces.healthier.qld.gov.au/public-about/benefits/>



- a decrease in absenteeism and staff turnover
- improving employee relations
- a healthier work environment
- enhancing your corporate image

This has led business to dedicate significant **(substantial)** resources to health and wellbeing programs in efforts to maintain an engaged, productive and healthy workforce and decrease the financial and humanitarian cost of injury, illness and presenteeism. The “Get Moving At Work” initiative reports an increasing number of Australian organisations adopting workplace health programs, with the key drivers being the management of the aging workforce, workers compensation costs, corporate social responsibility and being an ‘employer of choice’[18].

CONDITIONAL OFFER TO ORGANISATIONS AND BUSINESSES

To demonstrate the additional and cost-saving benefits of this new interdisciplinary program that has several major points of difference to the old style one-off training, I am prepared to offer a FREE One (1 Hour) workshop PROVIDED THAT there is full attendance from 8 to 10 team leaders and at least two senior managers with responsibility for staff training decisions and budgets.

Testimonials

“I just wanted to send you some feedback on the Practical Ergonomics session I attended today.

I found this extremely interesting and have already applied some of the knowledge/techniques learnt today. I believe a full workshop on this would be extremely beneficial. As a supervisor, I could see the knowledge gained and then monitoring staff postures and console ergonomics and assisting and guiding staff could potentially minimise risk/injury.

The Supervisors encouraging, promoting and leading by example with simple things like stretching becoming common practices whilst at the console is a very realistic goal.

Thanks for opportunity to attend”.

Donna
Team Leader
Qld Ambulance - Dec 2016



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