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Autumn/Winter 2016

## Pokémon K.O.

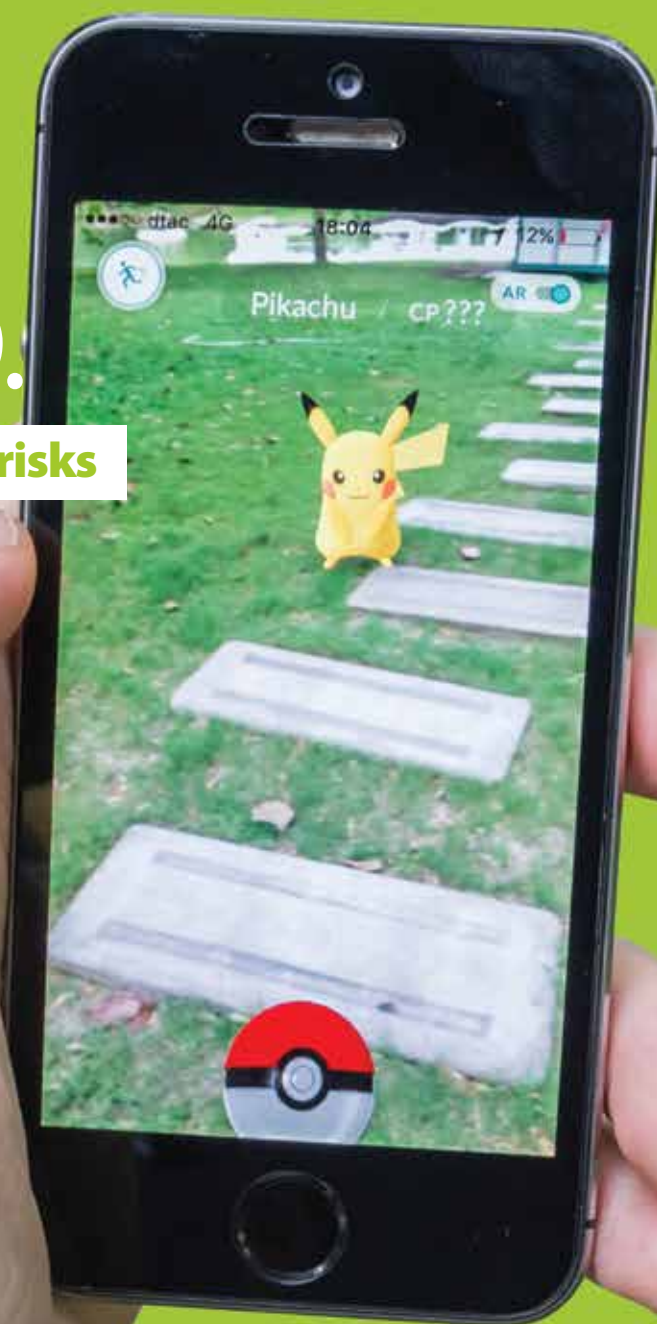
**Pokémon Go and latent health risks**

**Changing habits,  
growing cultures**

Forming a fleet  
safety culture

**Vision coverage**

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# Welcome

***Hello, and welcome to the Autumn/Winter edition of our popular magazine for risk management professionals, Cardinus Connect. For this edition we've got a bumper crop of articles addressing the very latest thinking and news in the risk industry.***

Our lead article focuses on a fun theme and one that we'll all have heard about in recent months, Pokémon Go. The success and popularity of the game has driven children, teens and young adults crazy, allowing them to experience first-hand what it really means to 'be the very best, like no one ever was\*'. However, like all things, too much of a good thing can often have a serious impact on our health. So in this article, I took a look at the health risks that too much mobile phone playing can have on young spines and minds, as well as some of the more startling risks that have transpired and been reported in world news.

On the back of this, on page 36, we thought it would be a good idea to publish a real-life account of how using modern technology in the form of smart phones, tablets and laptops, can have a very real negative impact on a young person's musculoskeletal health. In this article from Dr Romina Ghassemi, she presents a personal and terrifying story of how poor posture, brought about by the way we play with tech, can have results way beyond what we would expect.

Would you know what to do in an emergency? Well, it should be ingrained shouldn't it? And most certainly if you're a property manager! Jamie Truscott takes a look at how to prepare for an emergency and gives you a comprehensive view of what you need to consider when planning for an emergency. This will mean that when the time comes, you will (or at least

those responsible will) know exactly what you need to do. Not only could this information help save lives, but could also save your property from destruction.

With telecommuting, or mobile working, become a hot topic and personal choice for many individuals across the UK, we have two unique viewpoints on this subject. The first, by Ed Milnes and Sarah Tapley, looks at how you can get buy-in on ergonomic compliance for workers who are by their very nature working in changing environments, often with more than one type of tech device. The second is a clear and comprehensive guide for any mobile worker to help them set up their home office environment, including tips on where to place a desk, what type of chair to choose and even how to get the lighting right.

We sincerely hope that as a risk manager we have highlighted something that can positively impact your day-to-day working life, no matter if you work in ergonomics, safety, property or fleet risk. With Cardinus Connect you can guarantee that there'll be a wide range of opinions, views and expert thought. You can now ensure that you get this magazine direct to your inbox by signing up to our mailing list on our website. Head to [Cardinus.com](http://Cardinus.com) and click 'sign up' from the menu. Thanks for reading!

\*No, I'm not going mad, these are lyrics to the theme song!!

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Jon  
Abbott



# Pokémon K.O.

Jon Abbott guides us through the health risks of playing the most popular app in the world

POKÉMON GO is one of the most popular smart phone apps of all time, reaching over 100 million downloads and a providing a daily revenue of over \$10 million for its makers. Loved by kids and big kids alike it's a multi-generational augmented reality game that has taken the world by storm. But with all the hype it's often too easy to overlook the risk, and this has led some to injury and worse. In this article I'm going to thrust you into the fantastic world of Pokémon Go and talk you through the risks and dangers that this app can bring upon players young and old.

For those unfamiliar with Pokémon Go (where have you been?), it's a smartphone app based on the popular 90s computer game and cartoon about a kid called Ash and the animals who inhabit his world, called Pokémon. In the original game, you control Ash as you wonder about his world capturing wild Pokémon, training them and bringing them into battle against other Pokémon.

The smartphone app uses 'augmented reality' technology to map Pokémon into the real world where you play the trainer. This means you get to walk around your neighbourhood finding all the Pokémon and battling them against other players' Pokémon.

The popularity of the app, one of the first of its kind that successfully uses augmented reality, has led some conservative voices to criticise the game for forcing kids to spend even more time playing with electronic devices. From my perspective though, there are many serious dangers that we need to address if we want our children and young people to reap the benefits of such games while avoiding injury.

## Health issues on the go

As with all smartphone games where consumption is measured in hours rather than minutes, long-term injury can easily go unnoticed. Because smartphones are so small, around 4-5 inches in length, they're unsuitable for prolonged use. Often we hold the phone in front of our chest with our necks and backs bent. As players have to have the app open continually during play, this means that necks and backs can often be positioned at awkward degrees for sustained periods of time.

With that sort of sustained strain on muscles and ligaments it's no wonder that we are seeing a large increase in the number of children self-reporting neck and back pain, as identified in the previous issue of this very magazine (see Generation Pain for stats).

Device size also causes other issues too. When battling, a frequent occurrence in the world of Pokémon, you bash thumbs and fingers against the screen in an attempt to defeat other Pokémon. Couple that with the continued requirement of using your thumb for navigating and capturing wild Pokémon, and you've got a perfect combination for prolonged pain in the hand and forearm. You see, our little fingers and opposable thumbs are great at doing some actions, like holding and grasping tools or other implements, but when you use them too frequently for these types of mini actions it can lead to discomfort and eventually injury.

That's certainly going to cause pain for older people, but it's a particularly egregious recipe for children whose muscles and bones are still

developing and to which damage can impair healthy growth.

When we consider the length of time young people spend playing Pokémon Go, often many hours at a time, the effects mentioned above can be quickly exacerbated. It is advisable to take frequent breaks during gameplay to avoid immediate discomfort and gradual damage.

## Duration of play ≠ increased happiness

But the impact of extended gameplay doesn't just end there, there has been much research into the effects of screens on young eyes. The continual focusing and refocusing on new and different elements within the game means continual strain to eyes, and can mean blurred vision, irritation, headaches and more. These are usually temporary issues but none-the-less extremely unwelcome.

And let's not forget, there's a direct connection between the eyes and the brain, which processes those flickering and changing images as the screen changes and morphs when the player moves between different elements of the game. This processing power can be quite demanding and intense activity not only makes eyes feel tired, but makes the head feel fatigued too.

This sensory overload causes mental fatigue, which can cause problems when sleeping (particularly restorative sleep) which can make children moody and unable to pay attention. This is an uncomfortable truth about screen use and could potentially lead to long term issues if sensible gameplay isn't observed. Where sensory overload is concerned, it doesn't just stop there, we witness the impacts of these kinds of games on young people all the time. One of the most troubling is the psycho-social effects. Young people who spend such a long time one-on-one with devices often show signs of poor communication skills, an inability to make friends and reduced social development.



## Real world, meet real problems

As the game is played in the real world, there are a number of legal and criminal issues that have often been humorously reported due to the bizarre nature of such incidences. In the US, there have been numerous incidences of reported trespass, both on federal and private property. One class action lawsuit against Pokémon Go creators Niantic has brought together private property owners, with one plaintiff claiming that at least five players have knocked on his door asking to play the game in his garden.

In the UK there have been reports of coastguard crews sent out in the early hours of the morning as 20 teenagers tried to steal a boat to catch a Pokémon. Others have become victims of crime themselves, with regularly reported muggings and robberies of distracted Pokémon players who make easy targets for criminals.

Some players, seeking to maximise their playing time and catch more Pokémon, have even been caught using the app while driving. Not only is this activity a criminal offence, it is also highly dangerous as focus is away from on-the-road hazards and on the device. Reports have highlighted numerous crashes representing a serious risk to safety and life.

This usage has also led to a number of arrests around the world.

Despite all the negatives, as parents, friends and relatives of young players, the game isn't all bad. Like everything, moderation is key. There are a number of health benefits of Pokémon Go, such as increased outdoor activity, particularly walking and cycling to destinations. It's often the case that Pokémon Go players play with friends, increasing exposure to other young people, which is vital for good social development. Then there are also other benefits around mapping the environment, exploration and examination of the world outside. Finally, this unique app also allows the player to develop a greater understanding of the power and invention of technology, which opens up new avenues of thinking and creativity.



**Jon Abbott is a director at Cardinus Risk Management Limited, with more than 15 years' experience of ergonomics, safety and occupational health. Over that period he has worked with a wide variety of organisations in the private and public sector providing a full range of risk management solutions including software, e-learning and consultancy. Jon was instrumental in setting up Cardinus operations in America and Holland and is currently responsible for the sales and marketing strategy at Cardinus. Jon feels passionately about the health and well-being of young people and he believes more must be done to protect the workforce of the future. This drove him to set up Healthy Working MOVE in 2013.**



# Changing habits, growing cultures

Forming a safety culture can help promote the adoption of better driving habits and is far cheaper than the alternative, says fleet risk expert John Davidge

**LOSING a little weight recently caused a self-evaluation of the way in which our habits change imperceptibly over a period of time, with adverse results – the comparison with just slight changes to eating styles and exercise were not so much revolutionary as evolutionary, but the positive results were clearly evident. It highlighted to me the point about how and why our habits change, often unnoticed, over time. For some, the sound habits we adopt are not well-formed in the first place, whilst for others the changing circumstances of modern life are a factor in shaping our ongoing actions, sometimes detrimentally.**

In the same way our financial habits evolve from our early years where a set amount of pocket money means that careful thought is required to use it well, but later in life easily-accessible credit, and the “dreaded plastic” habits, can take a toll resulting in a sudden shock when “unexpected” bills arrive.

On the road, while learner drivers are helped to develop a required sound routine that

serves them well to get through the driving test, there is little advice about the need for (and sound reasons behind) sustaining good practises beyond the test. Moving into the world of driving for work often brings additional pressures that drivers are not well prepared for – unfamiliar areas and unexpected traffic jams, the need to meet deadlines (which are often self-imposed through poor planning) and delivery pressures that push a driver to make up time. As a result all the old ideas about not speeding and keeping space are gradually whittled away more and more – without realising it the driver is modifying his routines (habits) that compromise safety margins, until one day that driver is too close to another vehicle at the wrong moment and unexpected braking leads to a collision with the vehicle ahead. It is no surprise that this type of collision is prevalent amongst business drivers (as is the alternate version where the business driver is caught unawares by firmer braking in front of him, resulting in him practising the emergency stop and being hit from behind by someone else). The subtle changes in gradually reducing normal gaps over time results in erosion of a safety margin, leading to a collision that is

technically “not his fault”, or so the driver will repeatedly tell you – but ask yourself “who was it that set up the circumstances for it to happen in the first place?”

## What of the bigger picture?

Commonly drivers perceive collisions, pollution and congestion as “just one of those things” that goes along with driving for work – “It will happen, won’t it? What do we expect when we are on the road so much?” However there are plenty of drivers and numerous companies who just don’t experience such problems as commonly as some do – collisions are most definitely not inevitable.

Many years ago a client I worked with in a different environment set up a reasonably large-scale trial involving a control group and an identical second group where all of the members of the second group were told that they would shortly be participating in safe driving training at the company’s expense. (Both groups were equally formed – young/old, male/female, etc., and more). The only difference was the message given to the second group (the first group didn’t even know that they were a control group) but the results were significant – a 15% drop in collisions among the second group (compared with the control) over a 9 month period. That message of “forthcoming training” almost certainly caused a period of self-evaluation and reflection by most of those drivers; a chance to refine some of the behaviours once the awareness of impending training (that never actually happened!) was raised. (Incidentally a third group of drivers who did undertake on-road training achieved more than four times better outcomes still – who said that training doesn’t work?!)

## Forming a culture of safety

While providing good targeted training for high-risk drivers is important, it is vital that this is supported and encased in a carefully



formed company culture where driving safety is the expected norm. Creating a sound safety culture led by top management and with the total understanding and support of all middle and lower managers is a crucial part of the picture, and will help to reinforce the messages to provide a framework whereby a safe driving culture grows. Contrast this with a totally different environment in the distant past where I was due to meet a CEO in relation to a driver safety programme; on my way to the meeting he overtook me in his Mercedes S-Class while using a hand-held mobile phone, exceeding the speed limit and not wearing a seat-belt. When senior people are seen not to support the objectives so visibly, any safety programme is unlikely to succeed. Similarly, to automatically sack any employees who are involved in collisions without analysis of the bigger picture is

not likely to inspire others to stay on, is it?

How do you create a safe driving culture? There is no simple silver bullet, no one single answer, but a good starting point is setting a clear top-down agenda, taking the time to get everyone involved and communicating why it is so important for the company and the individual. When drivers understand fully what is intended, why it is important and how they can contribute on an individual basis, success is more likely. Developing a safety culture may seem expensive in the short term, but given that aside from deaths and injuries, the true overall cost of collisions is often many times the direct repair costs, can we afford not to do so? And nobody comes to work expecting to be killed or injured, or responsible for injury to others. It is even becoming an expectation in more and more environments for successful

tender wins, so a sound safety culture to reduce driving risks is a clear win-win. Even fuel and maintenance costs will reflect the cultural changes.



**John Davidge**  
is Head of Fleet  
Technical at Cardinus  
Risk Management.



*John served for 15 years policing the roads as an officer, where he saw the results of driving errors first-hand. He holds the National General Certificate from the National Examining Board in Occupational Safety and Health.*





# Forming good ergonomic habits for mobile working

Ed Milnes and Sarah Tapley look at how forming good habits happens and how to encourage long-term ergonomics best practice among your employees

**EQUIPMENT like laptop stands or tablet risers, combined with external keyboards, can significantly improve posture and reduce musculoskeletal strain when we are mobile working, but most of us can probably relate to letting equipment like this gather dust in a drawer somewhere.**

One of the biggest challenges for managers is getting people to actually use equipment given to them to reduce risk. As consultants we often speak to someone who has been given a laptop stand but when asked if they actually use it answer, "No, it's one more thing to carry around" or, "It takes too long to set up". We take a look at why this happens, and how to improve uptake of these beneficial ergonomic aids.

## Why do we avoid our ergonomic aids?

### Latency of risk

It is always a challenge getting people to change their behaviour to deal with latent risks. Unless something is going to hurt us there and then, we don't see why we should deal with it so we tend to ignore or neglect the risk controls.

### We don't feel pushed to work ergonomically

We often don't associate less apparent musculoskeletal effects like tension headaches or gradually rounding and hunched shoulders with poor ergonomics in mobile working arrangements. Even connections like painful wrists from holding tablets or phones, are not always so obvious. Also we can start working on mobile devices, intending to stop after a short period, then hours later find ourselves still at it. This means we often underestimate the musculoskeletal risks when we set about mobile work.

### We feel pulled to work un-ergonomically

Mobile working is often about grabbing time, quickly switching our devices on and doing what we can, where we can. The implicit philosophy is about using every spare moment to be productive. We just don't view time spent setting up ergonomically as productive (even though we will probably be able to concentrate better, work quicker, and for longer without needing a break).

It's interesting that these push and pull factors are based on perceptions that are often false. Popular psychology books like *Freakonomics* or *Thinking Fast and Slow* show that our perceptions are often at odds with reality, we believe this is a good example.



For instance, a laptop stand will generally take less than 10 seconds to set up, including getting it out of your bag – to put it into perspective that's about 0.03% of a 9-to-5 working day! Is that really too long, when the upside is not having a sore neck?

### How to improve things

Neither the carrot nor the stick is really going to be useful. Remote workers are generally not present so they can be neither fed nor whacked! You are also unlikely to have any reliable information to inform that decision.

The answer lies in helping employees form good habits and give up bad habits. There's little point telling people to work in a way that feels counter to their perceptions, without acknowledging the psychological barriers and giving people a plan for overcoming them.

First try framing the issue – announce it as an initiative, such as "Mobile Working Health Month". Raise awareness levels, make sure people are engaged with it in some way even if they are initially sceptical. Some scepticism is good, it helps you identify barriers and weed out inadequate kit.

We recommend a 5-step approach to habit forming. This is a simple set of steps that can be sent out to staff by email or done as a short toolbox discussion during a team meeting. Our website blog provides a free resource kit for employers.

### 5 steps to good ergonomic habits for your employees

**Step 1. SMART TARGETS:** Set yourself micro-quotas of the behaviour that is realistic and clearly defined e.g. "Each week I work two afternoons at café X, so I will start by just using my laptop stand there for an hour each time". You could keep a record of your success in meeting your target.

**Step 2. LINK IT:** Identify your usual sequence of actions when you are setting up to work and keep it simple e.g. "Sit down, open bag, laptop onto table". Write it down and add a step e.g. "Sit down, open bag, get laptop stand out, put laptop on stand". Visualise your actions as a chain and add a new link.

**Step 3. MOTIVE:** Establish in your head a clear reason why you are going to introduce this new habit, focus on your most effective motive, e.g. either to prevent strain and long-term musculoskeletal effects, or to improve concentration and work more productively.

**Step 4. RELAX:** Don't be too hard on yourself if you miss a target. Don't see it as the beginning of an inevitable lapse back to old ways. Just view it as a blip, we all have them.

**Step 5. PERSIST:** Stick with the programme for at least 21 days, ideally a month. There is conflicting research on time needed to form a habit. It varies depending on a range of factors, but we recommend a month, assuming work throughout that period is consistent and involves multiple opportunities to practice the new habit each week.

After a month on your initial smart targets, think about setting a new target.

Another useful trick is to pair up with someone trying to achieve the same thing, this will help to motivate you. This is especially useful for something like laptop stands where you can swap reassuring stories of sideways glances at your kit, or people wanting to talk to you about it. Kit can initially feel a bit geeky to use, so knowing you are not the only one is useful and pairing up at the same location is even more ideal (but not always possible).

The ultimate aim with establishing a habit is that you don't think about it anymore. It's just what you do; you are someone who does things a certain way, and that's that.

Finally as ergonomists we are duty-bound to say – make sure that any ergonomic aids are lightweight and compact. Employees will feel more justified in not using equipment if it is bulky and or heavy to carry. Sure it is always going to add some additional weight, but when was the last time we went through our bags and got rid of unnecessary weight? A good bag clear-out can easily compensate for any weight of ergonomic equipment.



**Sarah has been a consultant with the Robens Institute since 2011. Prior to this she was a Specialist Inspector in Ergonomics and Human Factors at the HSE where she had extensive experience of identifying, assessing, inspecting, investigating and advising on ergonomic and occupational health and safety issues across the whole spectrum of working environments in the UK, including the pharmaceutical industry.**



**Ed Milnes is a director at Mobile Office Ltd, and a chartered ergonomics and human factors specialist. Ed has over 17 years applying physical ergonomics and psychology to health and safety at work, first at the Health & Safety Laboratory and then as a Specialist HSE Inspector. Mobile Office is run by Ed and Sarah Tapley, and provides consultancy and management systems for improving the ergonomics of how mobile technology is used, helping companies identify healthier, more efficient and more productive working practices for remote and agile staff.**



# ISO 45001 – the new safety management standard

Within the next 12 months ISO 45001 will replace the existing BSS OHSAS 18001 occupational health and safety management systems requirements, says Andy Hawkes

**THE current standard has been around for a number of years and has been the way many firms have demonstrated compliance with reg. 5 of the Management of Health and Safety at Work Regulations 1999. Whilst this regulation does not mention a safety management system (SMS) specifically, it does insist on planning, organisation, control, monitoring and review; key elements of any SMS, including BSS OHSAS 18001.**

## So what are the key changes under ISO 45001?

A review of the series of early drafts sets out three distinct and important changes.

### 1. The new organisational clause

In order to meet the new standard, managers will need to link the SMS to their organisation's wider context to ensure that it is fit for purpose. This means that organisations must consider all stakeholders, including employees, as well as relationships with third parties and all dependencies. In practice, this could mean outsourced services and even separate businesses on the same business park.

You will also need to consider all suppliers of goods and services.

### 2. Senior managers should build in health and safety, not bolt it on

The new standard places much more emphasis on leadership and on aligning health and safety with other corporate objectives. Health and safety policies and procedures will need to be compatible with the firm's strategic direction and should be embodied in the overall management system and not be an added extra. In essence health and safety must be integral to, and no different from, managing all other functions within the business.

### 3. New annex SL structure

ISO 45001 will follow "Annex SL", the new Standard Structure for ISO Management System Standards. The main benefit of this will be easier read-across between different management systems, for example, quality 9001, and, especially environment 14001. This common core structure should save money, resources and time and ensure different standards do not conflict with business objectives such as cost control, quality control and productivity initiatives.

When creating an SMS, choose the simplest system that still meets your legal requirements. Match your systems to your organisation's size, complexity, hazards and risks.

So, if you are a small, low risk business a simple document of a few pages will probably suffice whereas larger, more complex businesses will need more elaborate procedures.

With the final version due to land soon, the practical considerations of creating and implementing an SMS will bear heavy on the minds of safety managers everywhere. Proper preparation will be needed to ensure that you can meet this new, expanded standard.



**Andy has worked in the insurance and risk management sectors for 30 years.**



**He is currently CEO of THB UK and Cardinus Risk Management, part of AmWins, a global insurance and risk operation. He has operated at main board level of a FTSE 250 plc as well as an AIM listed entity and has founded and sold a number of companies in the insurance profession. He has written widely on insurance risk management issues and has specific expertise in speciality commercial insurance as well as compliance and governance risk. Andy is an IIRSM Council member as well as a Trustee of The Alchemy Charitable Trust and a Non-Executive Director of Risk Alliance Group.**



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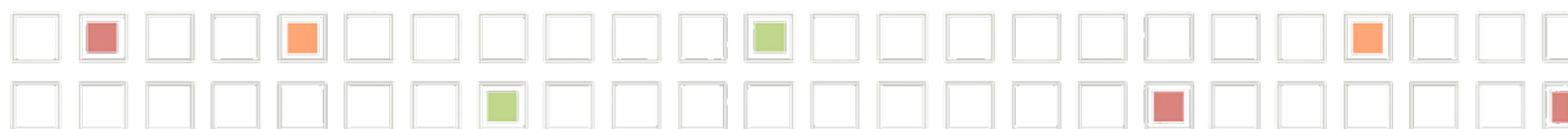
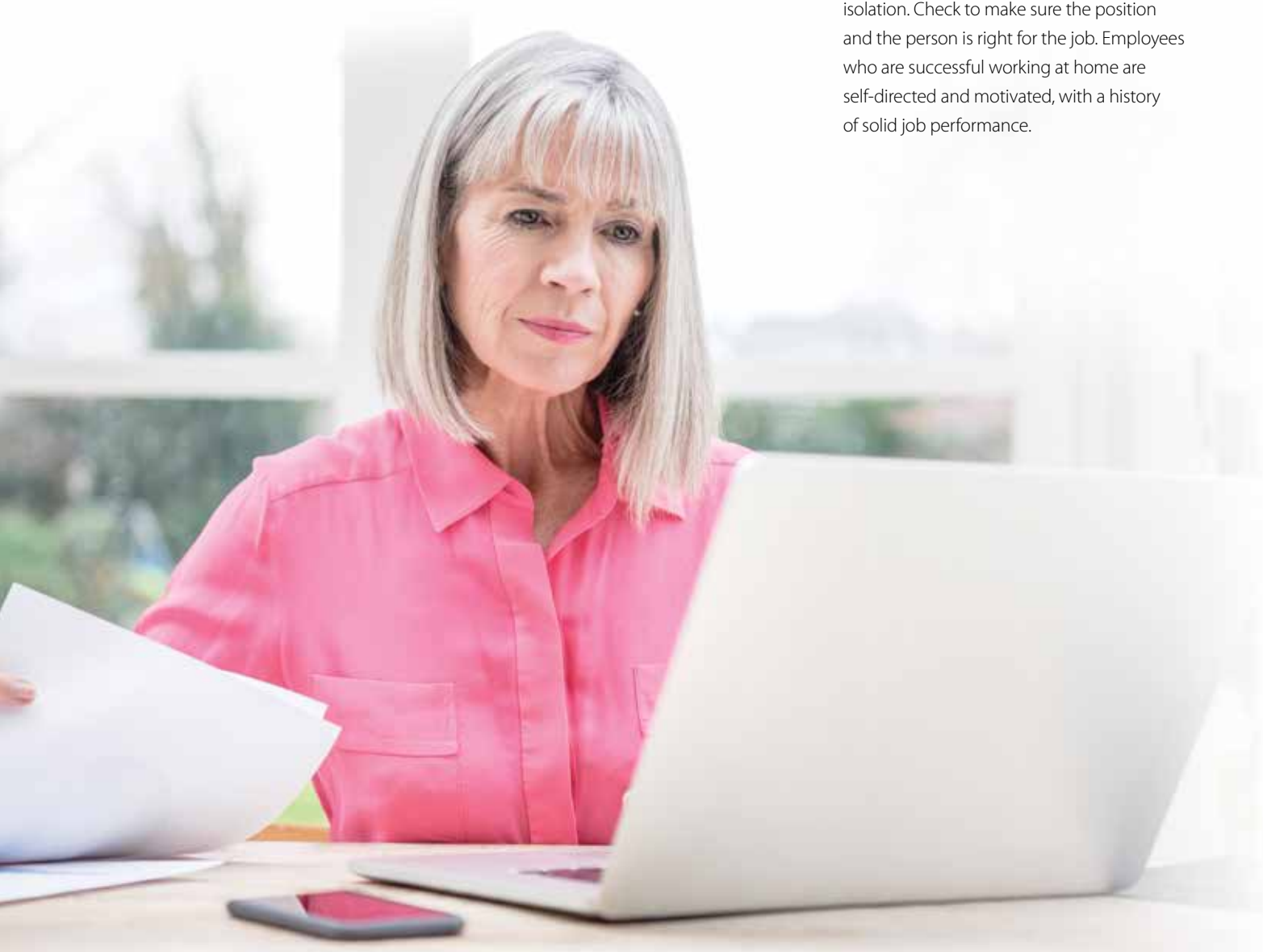


# Managing safety for telecommuters

Your one-stop guide to managing safety for telecommuters, from expert Wayne Maynard

**THANKS** to advances in information technology, where you work these days is not as much of an issue as the work you do. The central work location is being replaced by the virtual work location, such as the home, hotel, airport, shared and satellite offices, client office and even the car. This trend toward “alternative work styles” is likely to continue.

Telecommuting is not for everyone. Advantages of telecommuting may include fewer distractions; disadvantages may include less social contact with co-workers and more isolation. Check to make sure the position and the person is right for the job. Employees who are successful working at home are self-directed and motivated, with a history of solid job performance.



## Managing telecommuter safety

Implementing a managed safety process is critical to optimising the working environment of telecommuters, reducing the risk of claims and injury costs, and increasing profits. Key stakeholders inside and outside the organisation are essential to the success of this programme. Obtaining accurate and complete injury data and hazard information to effectively manage telecommuter safety is a challenge for managers.

Three approaches are recommended:

1. Employee reports: Prompt reporting of hazards, injuries or symptoms to the employer is important for treatment and prevention. However, some telecommuters are reluctant to do so, fearing that reporting work-related hazards or injuries may result in the cancellation of the telecommuting agreement.
2. Review existing records: Records such as workers' compensation claims reports and logs provide valuable information. Check with your insurer to make sure worker injuries occurring off-site are properly coded and tracked in your itemised loss statements.
3. Job surveys: These include checklists and surveys dealing with hazards. Employers may not know what hazards exist in the home environment unless the worker voluntarily offers the information. Most companies rely on self-assessments of at-home workplaces.

If you have a safety programme that addresses work-at-home employees, evaluate its effectiveness by answering the questions in Table 1. If an answer is "no," or "I don't know," target the item for improvement.

**Table 1. Telecommuter safety programme evaluation**

1	Do you offer guidelines for setting up a home office, including equipment and ergonomic accessories, and provide general recommendations?
2	Do you have self-assessment surveys for ergonomics, computer workstations and home hazards? If so, are these surveys administered online or by hard copy?
3	What do you do with surveys after you receive them? What kind of follow-up exists to determine whether hazards are corrected?
4	How is survey data collected, analysed and used for improving safety at off-site environments?
5	Do you have a policy addressing what ergonomic accessories and office furniture will be paid for by the company?
6	Do you offer training programmes for work-at-home workers that include risk factors, ergonomic solutions, symptom recognition and reporting? If so, are the training programmes administered via the intranet, hard copy or other means?
7	Do you assess whether training is completed and learning has taken place?
8	Is there a procedure for reporting computer and systems problems that impact the work-at-home employee? Are these problems promptly resolved? Do you know that for sure?
9	How do work-at-home employees report symptoms and general health concerns they feel are work related? Do they feel they can do so without reprisal of job action? Is confidentiality of reports maintained?
10	Does your insurer offer site coding in their claims databases for identifying injuries that occur to at-home or off-site workers? Do you use this data for determining safety and risk management priorities for off-site workers?
11	Do you have a return-to-work strategy for disabled workers who work at home or off-site? Are workers able to receive quality health care? How do you know?
12	Do work-at-home employees communicate regularly with their managers and peers, and are they kept current on company happenings?

## Tips for working at home

If you are considering a work-at-home policy, there are several issues to consider in order to maintain a safe and comfortable work-at-home environment.

## Planning the workspace

Identify a location that provides you with a physically separate work space, preferably away from the flow of activity in your house. Interruptions by family members can be distracting.

When planning your space needs, a good rule of thumb for space allowance is to identify at

a minimum, a 6' by 6' space for your primary work area. Expect space requirements to grow depending on what you need for references or storage.

Walk around periodically. Do not sit continuously throughout the day. Plan movement into your office design and recognize that this adds to the space requirements.

Do not put your office in a small room without windows. A closed room needs two doors out for life safety. Ideally, you should have ready access to a view greater than 12 feet away.

A window makes this easy. The longer view will allow the eye muscles to relax.

Avoid placing the computer next to a window. Windows that are close by create problems with visually demanding work because of the glare. Be careful of extension cords and wiring that crosses the travel area, as they can produce trip and fall hazards.

Select a location with access to sufficient electrical power outlets. If you have any questions about electrical supply, have a licensed electrician evaluate your needs and install additional outlets if necessary.

### Selecting furniture

Select your furniture carefully, especially your desk and chair. If your company provides furniture, know in advance where you intend to place it to be sure it will fit. If you are purchasing the furniture yourself, check with your manager or someone who is familiar with getting surplus furniture. Your desk will need to accommodate your computer, keyboard, phone, paper, references, stapler, sundry items like pen holders and paper clips, and possibly fax, CD drive, scanner and printer; therefore desktop dimensions are important.

Cheap office furniture offers little flexibility in monitor placement and adjustment. Those with cubby holes for the components can create problems if you have a large terminal, want to use a document holder, or want to use a slant board to hold books or other large references.

Do not place the monitor to the side of the keyboard. This is a poor solution because your neck was not designed to be held in a twisted position and you will eventually begin to develop neck and shoulder pain.

The desk may have a fixed-height work surface or it may be adjustable. Adjustable is better

because you will be able to set it at the correct height for you. Fixed height desks or work stations are usually in the range of 28 inches to 29 inches. This is a problem for many people. Some may find the keyboard is too high, even when using a standard office chair adjusted to its highest point. This requires an adjustable keyboard holder to bring the keyboard down to a comfortable position.

Select a solid, substantial desk or work station that doesn't tip over when loaded up or when an overloaded drawer is pulled out. Beware of raised edges, and look for good leg clearance (at least 17 inches deep at the knee) and a matte finish. Centre-drawer desks are not a good choice because the drawer will not allow for adequate leg clearance. A table is better, as long as the surface has cantilever support or is otherwise designed so there is no part of the frame impinging on leg room.

The chair is a critical component to your home office. Look for a commercial office chair with height adjustability, back tilt mechanism, lumbar support and one with a seat pan that is the right width and length. Select one wisely after trying some out. Most office chairs adjust in the range of 16 inches to 21 inches.

Your chair should have a 5- or 6-point swivel base with wheels, and a rounded or waterfall front edge. Some seat pans are strongly contoured; these can be a problem for some people. Be careful that armrests don't stop you from bringing yourself up close to the keyboard. If the chair has armrests, it is preferable that they are adjustable as they can limit movement. The backrest should not be so wide that your elbows bump it.

### Using the laptop computer at home

Many laptops lack the image clarity of a full size VGA monitor and can create eye

discomfort. Docking systems or simply attaching a full size terminal are good solutions for those whose work requires a substantial amount of visual interaction with the screen. A full size keyboard and mouse or other pointing device should be used as well.

The following tips can minimise the onset of eye fatigue and strain when using your laptop at home:

- Take "mini" breaks by focusing on a distant object for a few seconds
- Keep the screen clean at all times.
- It is better to make keyboard position your primary concern
- Use drapes, shades or blinds to control glare
- Keep your head in a comfortable position, not overly turned or tilted. Adjust the screen brightness and contrast levels that allow you to comfortably view the screen

Working with a laptop keyboard for long periods can be uncomfortable and fatiguing. Especially problematic is a laptop keyboard for someone who must work with numbers. A regular size and configuration number pad as a peripheral is essential for those who work with numbers on a laptop computer.





### Consider your environment

If you have a regular light-emissive terminal, the ambient lighting around the screen should not exceed 500 lux (50 foot candles). If you have a flat panel display, you can increase the lighting to around 750 lux (75 foot candles). Indirect fluorescent lighting or fluorescent lighting with diffusers that train the light directly downward are the best choice.

Avoid having any bright light sources in your immediate field of view. The preferable location for light sources is behind you, over a shoulder at an angle or at a right angle to you so that you do not see a reflection in the screen.

Most noise at home will come from televisions, stereos and conversation. Locating your office out of the mainstream of activity will allow your family or roommates to conduct normal lives while you work.

The home office should have adequate ventilation. If the home has a forced hot air system or central air, a duct should be in the work area.

### Making a good ergonomic fit

Once you have installed your furniture and equipment, it is important to adjust your workstation to fit you.

If you adjusted the chair up to compensate for your arm position, you will find that your heels are now off the floor. You will need a foot rest sized to allow your feet to rest flat on the floor or with the toes at a slight upward angle. It is not a good idea to sit with your feet extended for long.

Position the monitor for a moderate downward gaze angle, and between 20 inches and 30 inches from your eyes. Those who are farsighted might even find the monitor comfortable at 40 inches. If you are a hunt-and-peck typist, it might be easier for you to have a closer, lower monitor so you aren't moving your head and neck up and down. For those who touch type, a monitor at a higher position will probably be more comfortable.

Document holders are often a case of personal preference. In most cases, the home worker will be composing rather than transcribing, so it is often unnecessary to be concerned with a document holder. If your work involves a lot of transcription from a printed document, it will be very important to have a document holder. Generally, document holders are designed to be at the side of the terminal or between the terminal and keyboard.

Wrist rests are not for everyone and in some cases can be a problem. A wrist rest provides a soft place to relax the hands when not typing. Hands should be cupped and above the keyboard when typing while the wrist is straight or very slightly extended.

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# Treat health like it's safety

Mark Preston tells us how safety management systems should become health and safety management systems in light of some startling statistics

**FOR many years now businesses and industry have taken great strides in reducing accident rates and developing safety management systems, and whilst there is obviously still a long way to go there is rather a large elephant in the room, something that kills more than accidents, causes damages to lives and is a growing issue at work.**

Looking at HSE statistics it is clear that people who die or suffer from health related issues vastly outnumber those who are killed or injured as a result of work place accidents. HSE statistics for 2014/15 indicate that 142 workers were killed at work with 76,000 other injuries reported under Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). According to the Labour Force Survey there were 611,000 injuries at work of which 152,000 led to an over 7-day absence. Whilst these are figures we still need to address, compare that to a matter that the majority of companies still do not address adequately.

2014/15 statistics indicate that

## 1.2 million

people who worked during the previous year were suffering from an illness they believed was caused or made worse by their work, of which

## 0.5 million

were new conditions that started during the year.

In 2013,

## 2,538

people died from mesothelioma (a form of cancer associated with exposure to asbestos).

It is also suggested that

## 80 per cent

of new work-related conditions were musculoskeletal disorders or stress, depression or anxiety, yet we still talk about ensuring we have a safety management system in place. Shouldn't we talk about a health and safety management system, instead?

The construction industry are even taking notice about the issue of mental health in construction with the Health in Construction Leadership Group being set up to help address work-related ill health. In April over 150 leaders responsible for health and safety in the UK construction industry met to agree plans to help address the shocking statistic that UK construction workers are 100 times more likely to die from work-related ill health than accidents. During the conference it was

Heather Bryant, Health and Safety Director of Balfour Beatty who said, "The next step forward is to treat health like it's safety." What a great phrase and one that should be used across all UK industry, particularly when it comes to musculoskeletal and mental health issues?

So ask yourself this when it comes to safety management, do we have a risk in our workplace regarding musculoskeletal issues or mental health? Do we include these issues in our health and safety management system and if so how high in priority are these two issues? Do we proactively manage these issues?

### What's happening right now?

Unfortunately research finds employers are taking a reactive approach to employees' mental health problems, despite the fact that, as with safety, preventative steps make better business sense.

Research by the CIPD, the professional body for HR and people development, indicates that the number of people saying that they have experienced mental health problems while in employment has climbed from a quarter to a third over the last five years.

So while there appears to be a growing awareness around health issues, which is apparent in the self-reporting of such issues, there appears to be little affirmation by organisations of the scale of the problem and how they will proactively deal with the issues.

Despite growing awareness, the majority of employees still don't feel that people experiencing mental health issues are supported well enough at work.

Often proactively dealing with mental health issues is about putting in place small adjustments such as regular communication (remember those home workers) and flexible working hours. Allowing staff to have a

break from those smart phones and emails is necessary for modern working, and being able to identify and support a colleague who is struggling can also be hugely helpful to address situations.

### Managing fatigue at work by software intervention

Studies have shown that scheduled breaks were generally more effective than leaving workers to take breaks at their own discretion. Rest break software has been created to coach and encourage workers to take the breaks they need to avoid fatigue.

This type of software targets different types of fatigue, but gives users the ability to customise their own plan. The user chooses a setting that best represents their needs and then they have the ability to enhance this with custom reminders and content. Breaks range from stretch breaks, to short-cut key tips, to world news. The software measures the time and intensity to which employees engage with their computer. If the computer user works for too long without taking a natural break, the software will advise that they need to take a micro-break. The goal of the software is to raise consciousness in a natural, non-forced way that a small break is needed. Computer users get feedback on their computer usage and intensity and the software lets them know what they are doing well and what they could improve on to have more comfort and energy. Admins can

view statistics to see how employees are doing and better target which departments could use more coaching and support.

The proactive feedback closes the loop for an organisation between providing a tool to take breaks, to providing feedback on the actual usage of the tool, to responsibility of taking breaks on part of the individual employee.

### Across the pond

This isn't just a UK problem of course, it is a global issue and we are seeing other countries taking action when it comes to stress related issues in particular.

For example, in the USA numerous studies show that job stress is far and away the major source of stress for adults and that it has escalated progressively over the past few decades. Increased levels of job stress, as assessed by the perception of having little control but lots of demands, have been demonstrated to be associated with increased rates of heart attack, hypertension and other disorders. In New York, Los Angeles and other municipalities, the relationship between job stress and heart attacks is so well acknowledged, that any police officer who suffers a coronary event on or off the job is assumed to have a work-related injury and is compensated accordingly (including a heart attack sustained while fishing on vacation or gambling in Las Vegas).

It can be so much easier to tackle the safety issues, often because they're simpler to identify, get hold of and act upon. Yet it's important to start including health issues as part of our health and safety management system for the reasons addressed above. By treating health like it is safety we may force senior management to help confront these two issues that appear to be growing in significance. So when it comes to health issues make sure that you have an agreed approach to the issues, supported not only by senior management but understood by all line management. Develop your health and safety management system to tackle every risk not just that of safety.



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# Oh my aching head:

## The plight of proving the “proven” benefits of ergonomics

### If the benefit of an ergonomics programme is already proven, then why aren't we acting on it?

DO you ever wonder why it is so difficult to engage management in the cost benefits of having a robust ergonomic programme given all of its “PROVEN” benefits?

You would think it would, given the fact that ergonomics has been PROVEN to reduce MSD costs, improve productivity, improve quality of work and quality of life, improve employee engagement and create a better safety culture. Industry across the board should be clamouring to be the first to have the most proactive solution-driven ergonomics programme.

Building a team between HR, safety, facilities and wellness would be a no brainer and Total Worker Health would be at the helm. Instead corporations are silos and it is PROVEN that they are experiencing:

- Increased cost both direct and indirect for MSD claims
- Sluggish productivity
- Less than optimal quality of work
- Employee dissatisfaction
- Constant struggle to engage employees
- A culture of safety is on the bottom instead of the top of the corporate list

As Yogi Berra once said “You can observe a lot by watching” and it seems that no one is “watching”. If they did they would observe that there is so much they can do to have an impact in creating

a culture of safety, while cutting costs, improving productivity, engaging employees, improving quality, and they don't have to spend time trying to prove it. IT IS ALREADY PROVEN.

So one of the potential reasons for this sluggish pace is the inadequate integration of human factors and ergonomic principles and methods in these efforts. Employee safety and MSDs are complex and rarely caused by one factor or component of a work system. Health care would benefit from human factors and ergonomic evaluations to systematically identify the problems, prioritise the right ones, and develop effective and practical solutions.

### Why do ergonomic initiatives fail?

- Typically owned by a small group or one person in a corporation
- Not given priority
- Flavour of the month
- Feels like it is imposed by management
- Stuck in the traditional way of doing things
- Chasing injuries
- And I am sure a host of other reasons

### So what does a successful ergonomic initiative look like?

A successful ergonomic initiative will have support from management, participation from all employees, willingness to look at things differently and enthusiasm for the continuous improvement process.

Sounds easy, right? Not! However, the proof is in the pudding and as millennials enter the market I do believe proving the already proven

benefits will no longer be the struggle. Millennials as they enter the workforce will be inviting their pre-existing MSDs to come with them for some on-the-job training and the trend for MSDs to be one of the top 3 cost drivers for corporations will continue.

However millennials also bring with them:

- Team work/group work/group participation
- Creativity and the ability to look at things differently
- Ability to multi-task
- Purposeful action
- A sense of the wider community
- Technology embedded
- Enthusiastic about improving the process

### And finally, the recipe for supporting a successful ergonomic initiative

So as millennials bring their habits and injuries to the workforce, help them understand where their discomfort and injuries come from. If you show them the proof that their habits will have created their MSDs they will be the most proactive group to incorporate ergonomic awareness and education and use what they have learned as a motivation for change. They will observe and watch. They will be proactive and community minded. They will move and be healthy! They will prove that we Boomers have the proven solution!



■ **Donna Defalco**  
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# Information security management

Information is valuable asset. So how do you protect that asset, and how do you manage it? Andy Taylor tells all

**INFORMATION has been a valuable currency for many centuries, since the very earliest civilisations. Its importance has only continued to grow in the intervening millennia. Today it is the lifeblood of most, if not all, companies and organisations who thrive in the modern world.**

Whether your business is plumbing, manufacturing, logistics, financial services or retail, the information you have and use on a regular basis is critical to your business and must be looked after just as you would any other asset. It is not too trite to say that information is now probably your most valuable asset.

## Business risk

Risk to your business is an everyday management issue. You would be failing in your job as a business leader if you were not considering risks to your business. Information has the capacity to become a major risk to your business. Unfortunately the risk is not directly related to the size, type, location or makeup of the organisation. There is every likelihood that the smallest organisation will be attacked for the information they hold, as would a major multinational one.

Some of the most serious data breaches in recent months have come about because of the inadequate security measures taken by suppliers. This works both ways: suppliers to you might be a problem and those to whom you supply goods and services might be at risk from your poor security practices. In either case the end result is likely to be the same – damage to both companies with the potential for serious consequences, including bankruptcy. If information security risk management is not a standing agenda item on your management board's meetings, you are likely to be failing to do what is required.

## What should you do?

You do not need to be a security expert to start the process of ensuring you are taking the necessary precautions to look after your information. The basic principles are little more than common sense.

You need to know what information assets you have, where and by whom they are held. This is not necessarily an easy step but it is crucial to understand what you are trying to protect.

## First steps

This should automatically lead into why it is important to look after the information you hold. Some information may need very careful protection such as:

- Identifiable personal data (as defined in the current Data Protection Act (DPA) and GDPR)
- Financial data (such as bank account details of suppliers or customers)
- Intellectual property with copyright, trade secrets and the like

Other information like marketing materials, routine administration or simple names and addresses may need less protection because it has less value. It is not necessary (nor cost effective) to try and protect all information to the same level. Do watch out though for dependencies that might not be quite so obvious. One piece of seemingly insignificant information might be the key to a whole range of other information which, if removed from the system, could result in catastrophic failure of the whole information service. Creating a topology of the way information flows around an organisation can help to identify weak points, hot spots, bottle necks and critical dependencies that need to be addressed more carefully.

Once you know what you are trying to look after, where it is held and by whom (it could be outsourced for example) then you can take a measured approach, a risk strategy, to the management of the risks faced. A business impact analysis will help you decide which information is going to cause you most damage if it were lost, unavailable, corrupted or misappropriated. It will be closely linked to money and the amount you as an organisation are prepared to spend on protecting your information assets. Clearly spending to look after the most critical assets, the ones with the potential to cause most damage or financial loss, is likely to be higher than for the more general information.



## Next steps

It is important to understand that information like any other product has a lifecycle. Information is created (perhaps from raw data for example), then stored and processed (often repeatedly), and finally destroyed. Your risk management strategy must address all stages of this life cycle.

It might be useful to break down the requirements for each stage of the lifecycle into constituent parts each of which will need careful consideration. These elements must be present at all times, for all information and for all stages of the lifecycle if the asset is to be managed and protected appropriately. Here are some questions you should be asking, although it is not an exhaustive list:

- Training – do the people know what to do and how to do it correctly?
- Equipment – do you have the right type of equipment/process to ensure the secure creation, storage, processing, transfer and deletion of information?
- Personnel – do you have the appropriately skilled people available to you to advise on security, to design secure systems and to manage security on a day-to-day basis?
- Information – are you collecting the appropriate information on threats and weaknesses (vulnerabilities) in and about your systems to make the right assessment of the risk?
- Policy – do you have the right set of policies that make it clear to everyone what they must, can and should do with regards to information security?
- Organisation – do you have the right people making the key decisions in a timely manner based on good information, experience and advice?



- Infrastructure – do your IT systems facilitate best practice security management because they have been designed with security as a basic principle?
- Logistics – do you have the appropriate money, resources and related logistical requirements to manage and maintain your systems?

The risk from a cyber-attack is best managed if a formal systems engineering approach to design, development, maintenance and disposal of system is used. It has to be a cradle-to-grave approach and, as ever, the weakest link in the security chain will always be the place where the successful attack will be targeted. Well implemented service management should deliver security as part of their everyday activities.

#### Ongoing steps

Once you have the basic principles of security in place, the ongoing maintenance is critical. The people in an organisation are still widely accepted as the primary weak point in cyber security as it is often staff members that cause major problems when they do something

they shouldn't through ignorance, accident or deliberate act.

It is often an excellent idea to train up and appoint "champions" who are workers throughout the organisation to whom questions can be posed by staff, who can be seen as the first port of call with regards to security and who can help to spread the key security messages to the entire workforce. They should not be technical people necessarily. They need to speak plain language not "techno-garble" and must be regularly trained and updated on the current threats and events to which staff might be exposed. They should be given ownership of information assets, processes and/or the defensive measures to be taken ensuring, of course, that there is no conflict of interest.

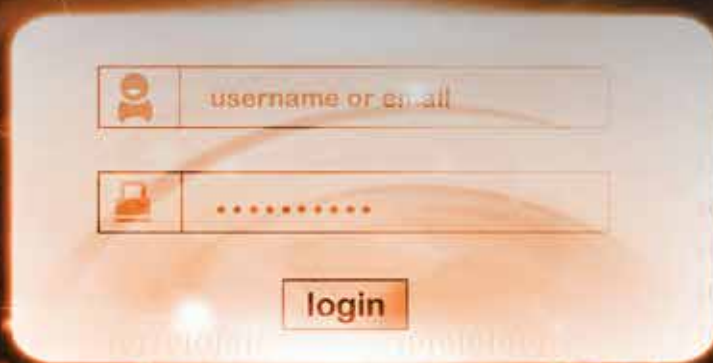
#### How good do we need to be?

The simple answer is good enough but of course that should not lead to complacency. There are many ways of assessing how well your organisation looks after its information. The UK government has developed Cyber Essentials as a scheme against which organisations can

be assessed and, if they meet these fairly basic requirements, be awarded a certificate. This can lead into the government's "10 steps to cyber security" designed for the larger and more security aware businesses. Then the international standard ISO/IEC:27001:2013 certification can be used as a higher level measure of assurance. Penetration testing of your systems both internally and externally can also be undertaken and should be considered as mandatory for any system that is internet-facing.

These certifications all have their place (and there are plenty more of them) but they should also be considered with some care. They are all really little more than a snapshot of the security in place on the day the assessment was done. If the system changes, the threats change, the staff change or indeed virtually anything changes in relation to the information system, there is a risk that the overall security will not be as effective as it was thought to be.

True cyber defence must be a proactive process if real threats are to be stopped or at least have their impact minimised effectively.





To be proactive, there must be continual improvement in the way all security controls are implemented and operated. Only if that is happening will the defences continue to work effectively against the newest and latest threats and vulnerabilities. So a measure of the maturity of the implementation of the controls is paramount. If this is done appropriately and the results passed to the relevant board members, they should then be able to see where they need to reconsider their security defences, where there is need for more (or perhaps less) expenditure and what the company is facing in terms of the real potential financial impact risk.

Once this is understood a proper plan of action, appropriately resourced in all respects, can be put in place to provide the level of protection the board feel is appropriate. This is likely to include some transfer of risk to an appropriate insurance policy. The cost and coverage of the policy is likely to reflect the degree to which the organisation has taken measures to protect itself.

Once the maturity has been benchmarked, changes in policy, technology, risk or anything else can be considered with a repeat of the assessment either carried out by internal staff or by external independent assessors. This is then the hall-mark of a mature organisation that is least likely to be attacked successfully from the internet or anywhere else!

*Some of the most serious data breaches in recent months have come about because of the inadequate security measures taken by suppliers.*

### How good do we need to be?

1. Know your business and the digital assets upon which it depends
2. Agree an overall risk strategy that you intend to manage
3. Include cyber defence management as an equal stakeholder in the strategy
4. Quantify and evaluate the financial impact of data loss or business outage
5. Break your strategy into the operational risk management of lifecycles covering training, equipment, personnel, information, policy, organisation, infrastructure, logistics
6. Assign the responsible "champions" to each business asset and defensive strategy (threats c.f. control list), de-conflict these!
7. Create the topology of what you are protecting and the dependencies of each business component
8. Benchmark against known cyber security outcomes of how well you currently perform against each of these controls and publish the findings to the risk board and non-executive directors
9. Agree plans that include the cost to remediate problems, to transfer risk to insurance or decide what you are prepared to self-insure
10. Repeat the quantification and business strategy assessment whenever the business, the systems, the threats or the vulnerabilities change



**Andy Taylor is the lead assessor for APMG International in several cyber security disciplines. These include the schemes set up by GCHQ to assess the competence of individuals, cyber security training and the organisations that provide the courses. He has worked in security since the mid 1980s and is a qualified lead auditor for ISO27001. APMG's Cyber Portfolio includes the Cyber Defence Capability Assessment Tool (CDCAT®), developed by the Defence Science and Technology Laboratory (Dstl) and industry supported certification scheme Cyber Essentials, developed by the UK government which provides criteria for organisations to measure their cyber-security systems against. CDCAT® is available through Kyngswoode Services Limited, a Channel Partner with APMG International.**

# Vision coverage: An effective tool for wellness

Comprehensive eye care is good for people and for business, says Suzanne Starkey

**WHEN it comes to personal health and wellness, we all know the importance of preventative care. We eat balanced diets and exercise often. But how many of us include regular eye examinations as part of our personal wellness?**

Every day in the United Kingdom, 100 people start to lose their sight<sup>1</sup>. And according to Eyecare Trust, one in 10 British adults has never had an eye examination. We rely heavily on our sight to complete everyday tasks, to perform well in our jobs and to experience the world. Yet, we tend to neglect to safeguard this important sense with comprehensive eye coverage and regular examinations.



## What do our eyes say about our health?

Often we wait to see an optician until we notice a change in our vision. The problem with waiting is that most eye problems are often silent and without obvious symptoms. By getting a regular eye examination, we are able to keep a better watch on our vision health and can prevent, or reduce problems that result in vision loss. In a comprehensive eye examination, the optician can look for eye muscle imbalance, vision disorders, and eye diseases that could potentially cause future problems.

While routine eye examinations are crucial for maintaining our eye health, vision care has applications beyond just vision correction. Because our eyes are the only place in our bodies that provide a clear view of blood vessels, arteries and cranial nerves, comprehensive eye examinations can tell a lot about overall health. They also detect early signs of health conditions often before symptoms are apparent.

**A comprehensive eye examination, such as those offered by a vision care provider can often detect the first signs of chronic conditions<sup>2</sup>, such as:**

- Diabetes in 34% of cases
- Hypertension in 39% of cases
- High cholesterol in 62% of cases

## What is the economic rationale for employers regarding vision care?

Vision care is not only a crucial element of personal wellness and preventative care, for employers it's also a low-cost, high-value benefit that can be offered at relatively low to no cost to employees. When employees utilise vision plans to manage their vision and overall health, employers also reap the benefits.

## Improved productivity

One way that vision coverage benefits the employer is by increasing employee productivity. According to Vision Council<sup>3</sup> poor vision results in 32 times more productivity lost than from absenteeism alone. And individuals who receive glasses are able to increase their productivity by 35 percent over a two year period.

## Reduced medical costs

By providing early detection of vision problems and other chronic health conditions, regular eye examinations play a vital role in disease management. A recent study conducted by Human Capital Management Services Group (HCMS Group) found a 145 percent ROI on initial dollar investment due to early detection of chronic diseases with reduced employer medical costs, fewer hospital admissions and ER visits, and less employee out-of-office time. Individuals and employers alike can easily see the value of personal wellness, yet vision care remains as low hanging fruit. As a key indicator for early detection of vision and overall health conditions, routine eye examinations and comprehensive vision coverage is a crucial component of an employee wellness programme that truly pays for itself.

<sup>1</sup>RNIB, "Save Your Sight: Spot the Signs," c2016.

<sup>2</sup>Study commissioned by VSP and conducted by HCMS from November to December 2012. Study sample consisted of randomly selected, geographically representative shops with nearly 850 private-practice independent optometrist locations and nearly 450 retail chain locations.

<sup>3</sup>Vision Council, 2008. "Vision Care: Focusing on the Workplace Benefit."



Employees need vision care



Every day in the UK  
**100**  
people start to lose their sight.<sup>1</sup>



**1 in 10**  
British adults has never had an eye examination.<sup>2</sup>

Opticians are the first to detect signs of diabetes

**34%** **OF THE TIME.**<sup>4</sup>

Powerful preventive healthcare



**£8.4 BILLION**  
per year estimated cost of absenteeism due to diabetes.<sup>4</sup>



Poor vision results in  
**32x**  
more productivity lost than absenteeism.<sup>5</sup>

Increased employee satisfaction



Receiving glasses increases productivity by  
**35%**<sup>5</sup>



If employers can increase employees' understanding and appreciation of their benefits,  
**EMPLOYEE LOYALTY AND ENGAGEMENT** will improve.<sup>6</sup>



■ **Suzanne Starkey** is a Market Director at VSP Vision Care, the leading provider of eye care and eyewear, serving 82 million members globally. Prior to her role at VSP, Suzanne spent five years at Specsavers and also worked for companies including Dow Chemical, BUPA and The AA. During her career she has been responsible for promoting the importance of good eyesight, educating employers and developing innovative ways to promote the importance of sight tests for vision and health.

**The right vision cover can improve employee wellness and productivity.**

Sources: 1. RNIB, "Save Your Sight: Spot the Signs," c2016. 2. Eyecare Facts and Figures, [eyecaretrust.org.uk](http://eyecaretrust.org.uk). 3. Human Capital Management Services, Inc. (HCMS) on behalf of VSP, 2013. 4. <http://www.diabetes.co.uk/cost-of-diabetes.html>. 5. Vision Council, 2008. "Vision Care: Focusing on the Workplace Benefit." 6. MetLife, United Kingdom Employee Benefits Trend Study, 2014.



# Growing green workplaces: The latest from LEED

Learning to LEED? Jennifer Law guides us through the ups and downs of green, sustainable and ergonomic design

**MY first encounter with “green” ergonomics was around 2007 when I met with a local furniture dealer to review some of their new office products. As I toured their showroom they were using terms like cradle-to-cradle to describe keyboard trays, Greenguard for chairs, and daylighting in new workspace layouts. What did these words mean? After doing a quick internet search to learn more, I was led to other sites that referenced sustainability and LEED (Leadership in Energy and Environment Design). Then there were more questions. What was the difference between green and sustainable? How would this affect the very basic goal of ergonomic design; to improve the comfort, productivity, efficiency and wellbeing of employees?**

Therefore aside from obvious desk components that affect user posture and comfort, the surrounding environment is just as important. Decades of related scientific research has shown that certain environmental conditions, specifically in workplace settings, can either positively or negatively affect our minds and

bodies as a whole. This includes but is not limited to light, air quality, temperature, noise and colour.

The U.S. Green Building Council (USGBC) was founded in 1993 as a non-profit organisation that promotes sustainability in building design, construction and operation. The USGBC developed the LEED Green Building Rating System that provides third-party verification of green buildings from commercial to residential, retail, healthcare, schools and neighbourhoods. In addition, through its partnership with Green Business Certification Inc. (GBCI), USGBC offers a suite of LEED professional accreditation that denotes expertise in the field of green building. Projects may earn one of four levels of LEED certification. The current point system is as follows: Certified = 40-49 points, Silver = 50-59 points, Gold = 60-79 points, Platinum = 80-110 points.

With LEED being widely used across industries, several studies explored whether the needs of building users were being met with respect to

office layout, lighting, temperature and acoustics. For this reason, the USGBC recognised the need for an enhanced focus on the building occupants.

In March 2012, a formal pilot credit (Pilot Credit 44) was developed to recognise ergonomics. The intent of this credit was to provide 1 point towards LEED certification for the incorporation of an ergonomics strategy during the design process.

Adding an ergonomics requirement to the LEED system was a vital yet natural extension because the overall goal is the same - designing the workplace to accommodate its users' health, wellbeing and productivity. There were even correlations between the traditional LEED categories and ergonomics credit. For example, a basic desk chair may be replaced with an ergonomic task chair constructed with a percentage of recycled material, thereby contributing to both occupant comfort/health and environmental sustainability efforts.

On 2nd April, 2015, The National Institute for Occupational Safety and Health (NIOSH) announced its recognition of LEED. NIOSH's Prevention through Design (PtD) initiative was given a LEED Pilot Credit for 1 point towards LEED certification. PtD addresses occupational safety and health needs by eliminating hazards and minimising risks to workers throughout the life cycle of work premises, tools, equipment, machinery, substances and work processes including their construction, manufacture, use, maintenance and ultimate disposal or re-use. The ASSE/ANSI Z590.3 Prevention through Design Guidelines was first published in 2011 to address Occupational Hazards and Risks in Design and Redesign Processes.



Since then, the USGBC and NIOSH have worked to recognise and support high-performance, cost-effective employee safety and health outcomes across the building life-cycle through early attention to safety and health hazards. Many U.S. companies openly support PtD concepts and have enhanced their management practices to implement them.

As of January 2016, the LEED Ergonomics Pilot Credit 44 was refined yet again to specifically address “computer users”, defined as full time equivalent staff that utilise a computer for more than 50% of their workday. The new requirements entail applicants to engage an ergonomist or health and safety specialist to assist in the development of an ergonomics strategy to include reviews of design options, mock-ups and user feedback. This would be followed by one year of tracking the performance of the strategy to ensure all goals

were met in order to obtain 1 possible point towards LEED certification. The goals include meeting the standards/guidelines of HFES, ANSI, ISO, or CSA. recognising that green or sustainable does not always necessarily mean comfortable or safe, was a pivotal element in this guideline. For example, sustainable wood flooring may earn LEED points, but if its Slip Index is under 0.2, it will increase the risk of slips and falls while also preventing an office chair’s casters from staying in place as desired. No matter how environmentally responsible the product, if it does not uphold the best practices for human interaction and performance, it will have little value. As stated in the Pilot Credit 44 description, the intent is, “To improve occupant well-being (human health, sustainability and performance)



through integration of ergonomics principles, specifically in the design of work spaces for all computer users”.

Between OSHA, HSE, ISO, ANSI, BIFMA, etc., adding the LEED element seems like just





another guideline in which to adhere. Plus there is still controversy as to whether green buildings are truly more energy efficient and cost effective. Various research has found conflicting results; especially if participants can pick and choose the easiest points to take the cheapest road to certification. Therefore it is best for each organisation to carefully weigh the benefits and drawbacks of implementing a LEED programme and to determine what they intend to gain from it. Perhaps it may depend on the company's values – similar to one's personal reason to eat the more expensive organic vegetables versus the affordable conventional varieties.

Others may be driven by energy savings, water preservation, social responsibility, human health or all of the above.

Regardless of the financial impact, LEED will certainly plant the seed of environmental quality improvement within a building; if not raise awareness of environmentally responsible choices if that is part of the end goal. From an occupant health and wellbeing perspective, it could spare several employees from headaches resulting from paint fumes containing VOCs (Volatile Organic Compounds) and save another from post-move back pain if the new office chairs purchased are made from lightweight, recycled materials.

Therefore if the root of LEED programmes is to cover the same goal of occupant comfort, health and wellbeing while also branching out to make environmentally responsible choices for your company, perhaps the green concept may grow on you.

### Further reading

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**Jennifer Law is a Certified Professional Ergonomist and a Vice President of Marsh's Workforce Strategies Practice. She has over 12 years of consulting experience within various industry sectors developing strategic corporate safety and ergonomics programmes, with an approach that emphasises organisational culture, collaborative teams, workplace design, emerging risks, innovation and sustainability. She also serves as an advisor in commercial/ industrial product design. Jennifer is an active member of the American Society of Safety Engineers (ASSE). She serves as an Advisory Committee Member, Mentor and Local Chapter Representative for ASSE's Women in Safety Engineering (WISE) group.**





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# Too high? Too low? Just right! Vision needs, monitor height and neck pain

Robin Cyr tells us how important these factors can be when attempting to lessen pain

**THE viewing angle when looking at one's desktop monitor, laptop, tablets, and smartphones is an ergonomic risk factor receiving a great deal of deserved attention. Injuries related to neck pain and potential damage to the cervical spine and discs are well documented in users of all ages. Lately, the focus has been primarily on teaching avoidance of looking down and flexing the neck while doing so. This is an especially significant risk with constantly used, hand-held devices and to anyone of any age sustaining this awkward head-on-neck position for hours each day.**

There are, however, a host of associated risks with monitors that are too high to view with one's head level that are not currently garnering as much attention. While use of small, portable gadgets is on the rise, many workers are still tethered all day to desktop systems with or without sit/stand capability or monitor arms. Monitors are often too high as users' vision needs change over time and their workstation set-ups do not, or there is simply a lack of understanding about what "viewing the screen with head level" means. Let's take a look at those risk factors and how to recognise them through responses to computer-delivered risk assessments or in person in the field during ergonomic desk assessments.

First, a brief review of human anatomy and physiology. The human head weighs around ten pounds. Visualise a 10 pound bowling ball perched on your shoulders and supported by your neck. When your head is level, your bowling ball weight-skull is virtually weightless on your shoulders and you have no physical sensation of the weight being carried. When you lean forward, your head automatically tilts back extending the neck and compressing the discs between the cervical vertebrae, resulting in tightening the muscles in the neck, upper shoulders and between or beneath the shoulder blades to bear its weight.

Second, consider that most workers at or over the magic age of 40 begin to experience age-related farsightedness (presbyopia) and now need reading glasses, over-the-counter or prescription, to see clearly up close. Keep in mind that for human eyeballs, close focus involves the slight rotation inwards (convergence) at a downward angle to view something closer than about 36 inches. That's why when you sit down to read a book or newspaper, you automatically hold it well below eye level because this is the most comfortable position for your eyeballs to do their job of focusing on something close to you. Note, too, that gazing downward to read a book or magazine does not necessarily cause you to bow your head by flexing your neck.

What does vision have to do with neck posture and monitor height? Here's how the answer to that unfolded for me. Having worked with the same population of workers for many years, and having adjusted their workstations several times for their comfort during that timeframe, I was initially puzzled to start receiving calls that, "My neck hurts!! Would you please come take another look at my workstation?"

Workers are used to hearing that they must be able to view the monitor (digital screen equipment) with head level. However, the admonition to "view the screen with head level" usually doesn't include the caveat "with





head level while wearing whatever vision correction is required to see the screen in focus.” As a practicing ergonomist with 20 years of experience, I’m finding many monitors much too high for safe, ergonomic posture. I routinely have to remove monitor risers rather than add them to a workstation. What follows are the clues that worker vision is at the heart of neck extension and pain when seated at a too-high monitor.

Upon visiting employees with newly reported neck pain, I noticed that the most common change in their work environment had been the addition of non-prescription, “over-the-counter-readers” to their repertoire of daily-used

equipment or tools. Onset of neck pain may occur only days or weeks following adding glasses into their lives. What follows are three examples of what to look for.

Employees who have had success with these often fashionable “readers” assume that if they work for reading, they will work to see their now-fuzzy monitor screen. When given an opportunity to simply watch them work, most would grab their “readers” and pivot to face the monitor, tilt their head back (visualize a turtle seated upright at a computer monitor with head thrust forward) to see through their glasses, and begin to work.

The problem of head tilt/neck extension is even more exaggerated when tiny, tip-of-the-nose or “half-readers” are the customer’s selected option to needing help with close vision.

Why won’t “over-the-counter-readers” work at the computer? Because regardless of the magnification strength (+1.0, +2.0, +3.0, etc.), the focal range to see clearly using them is only about 18 inches from the eyes. Because none of us sit that close to our monitors, leaning forward to about 18 inches is the only way to bring the screen into focus when wearing them.



A similar problem exists for long-time prescription glasses wearers who now need extra help with close focus. The typical lens of choice is an unlined, multifocal range "progressive" lens. The sweet spot for mid-range viewing is in the middle portion of the lens just below pupil height, as it must so the wearer can see distances clearly with head level looking through the distance-focal range in the top half of the lenses. If the monitor has been set at eye level, as it was before they got their new glasses, they now have to tilt their head back to see through the "sweet spot" in that progressive lens.

The last most common clue that vision is driving awkward head and neck posture at the monitor is seeing someone without glasses constantly leaning forward when working. Given that this is a posture that also reflects intense focus or concentration, have a conversation with your customer about causes. They are likely completely unaware of doing this. Denial of need for vision correction is common for assorted reasons ranging from not recognising that vision has changed sufficiently to warrant a visit to one's optical provider, to not feeling able to invest the time or money into having one's eyes checked, to simply not wanting to acknowledge it is something that finally has to be addressed. Use this opportunity to engage your customer to help them become aware of a posture you

see that you know will ultimately cause harm to them and to help guide them to a range of solutions.

The quickest way I have discovered to demonstrate problems with monitor height for employees with or without glasses is to have them sit in whatever their preferred posture may be when viewing the monitor. Next, ask that they simply focus on your finger as you point to different areas on the monitor face. Point to the bottom of the screen where it is likely the toolbar resides. Point somewhere near the middle, to one side or the other. Finally, point to the top of the monitor. As soon as you see their head bobble and chin tilt up, you have the evidence provided by their own body that the screen top is too high. Repeat, if needed, so your customer can feel the shift in head position. I never try to "eyeball" monitor height based on my observation of a customer in profile seated at their monitor. My only criterion is evaluating their head position when asked to focus their eyes on something at the top of the screen.

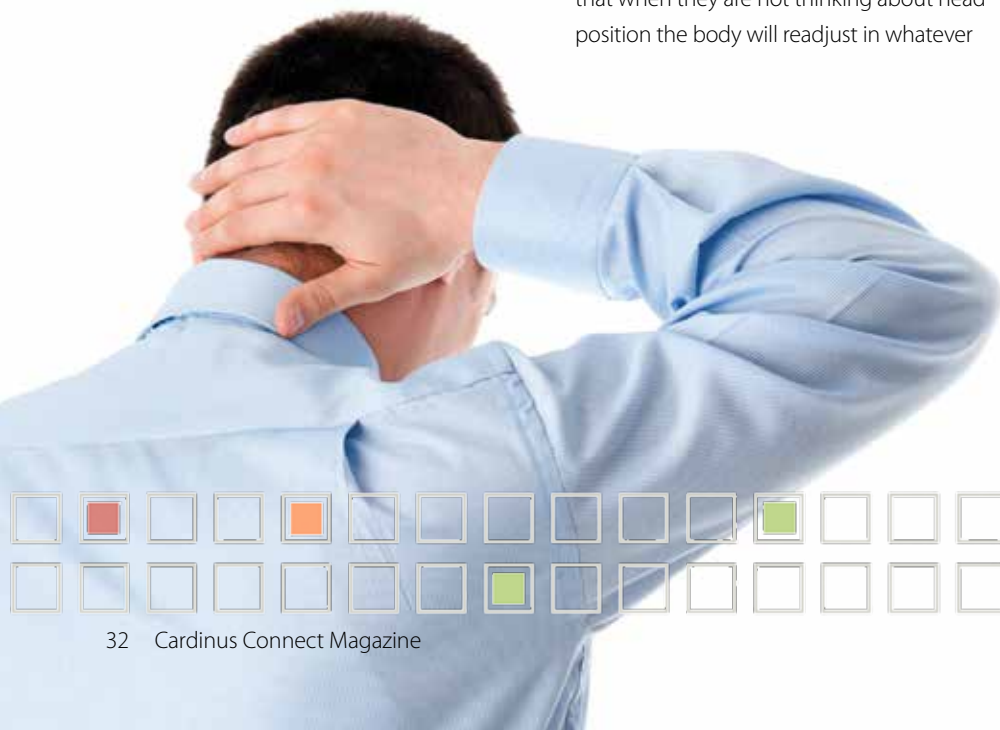
Remember from the discussion above that for human eyes to work properly for close focus, they must rotate slightly down and in? That automatic head adjustment is the signal their body is sending that the eyes are compensating for the need to gaze down at something that is too high by tipping the head back. Once your customer understands that when they are not thinking about head position the body will readjust in whatever

way it must for the eyes to focus on the screen, persuading them to allow you to change the height is easier. Ultimately, the monitor will be the correct height when tilting the head back is no longer required for the eyes to view the top of the screen clearly.

If viewing the monitor requires head tilt all day, every day when seated at the computer, neck pain and physical alteration in the muscles and discs over time will be the result. Most of my colleagues "get it" right away and report immediate relief to neck discomfort when we lower the monitor. For those employees that protest the change is "uncomfortable", try suggesting that perhaps they mean "unfamiliar" rather than physically "uncomfortable or painful". Ask if they will give the new monitor position a try for a week to 10 days to allow their muscles to readjust and for this change to become "comfortably-familiar". Finally, be sure to follow up by phone or in person to see if the change has relieved their symptoms.



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# The implications of not frequently checking driving licences

Malcolm Maycock explains why frequently checking driving licences is so important for fleet business

**FLEETS should take a proactive approach to regularly checking the licences of employees, to assess whether they remain suitable to drive on company business and ensure they are adhering to Duty of Care obligations.**

With some uncertainty in companies on who uses their car to drive on company business, it's more vital than ever to check the licences of all employees.

I recommend, in-line with the traffic commissioners, that licence checks are carried out at three-monthly intervals in order for drivers to remain compliant, allowing employers to build the most up-to-date digital picture of employees. Organisations such as the Fleet Operator Recognition Scheme and Freight Transport Association recommend checks every six months and additional checks for high risk drivers.

Companies must remember that it's not only staff that drive company vehicles as the main part of their job that need to be checked. Other employees who may use their own vehicle to perform any job-related tasks, known as grey fleet drivers, no matter

how big or small, must be checked.

There could be serious implications for the company if a driver, who could have convictions, endorsements or a disqualification against their licence, is involved in an incident, and it can be proved they are driving on business.

With HGV and motorcycle drivers holding various entitlements, frequent licence checks are crucial to build a larger overall compliance profile of the driver. This could include any changes to medical conditions that could affect an employee's ability to drive.

Real-time licence checking also allows fleets to obtain a bigger picture of any points, endorsements or a disqualification that a driver may hold against their licence. With the speed that licences are updated by the Driver and Vehicle Licensing Agency (DVLA),

it's vital to know from one day to the next that your driver is still legally able to operate the vehicle on company business, giving complete peace of mind and full compliance with employment contracts and insurance. Failure to enforce this could result in substantial legal, reputational and financial repercussions should a driver on your fleet be involved in an incident. The process of dealing with those drivers whose licences require urgent attention and the sheer number of drivers operating illegally in the UK should encourage businesses to keep the most up-to-date information available for their drivers.

Frequent licence checking should serve as part of a company's overall risk assessment, laid out by the Health and Safety Executive. Under The Health and Safety at Work Act 1974, employers should be identifying the hazards that a driver could pose and regularly reviewing their work-related risk assessment.



An employee's overall driving history needs to be checked, both at the time of employment and frequently throughout their tenure.

When checking an employee's licence, any system needs to be compliant with the Rehabilitation of Offenders Act 1974. This emphasises the need for thoroughly checking the licences of current staff and when employing new employees who will be driving on company business.

Should an employer not schedule regular assessments, they have no way of knowing whether their drivers have previously committed an offence since the last check, which could compromise the company's vehicle insurance policy.

This is especially important for those with the most serious convictions that will become spent after five years. These offences typically involve driving under the influence of alcohol or drugs, or causing death by dangerous driving.

The driving licence is now only a starting point; fleets should ensure drivers are fit and healthy and not impaired by any prescribed drugs or medical conditions, even for a short time.

Licence holders have a legal obligation to notify their employer and the DVLA of any impediment to their health that would prevent them from driving, or from carrying out their job to the required standard.

However, relying solely on the driver to notify their employer of such a condition is risky. Regardless of the severity of the health issue, this could allow an unfit driver to get behind the wheel and in some cases, operate specialist equipment. This could leave employers liable to prosecution should an incident occur.

Regular checks and encouraging drivers to inform their employers of any changes to their health that may affect their ability to carry out their duties, is the only way to ensure that risk in this area is mitigated. However, this requires

the ability for fitness-to-drive information gathered from third-parties, to be acted on by the DVLA, whether this is from doctors or police.

The time and resources required for fleets to establish licence checking, especially when carrying out checks internally, is no excuse not to regularly assess the ability for employees to drive on company business.

Although internal checking and re-checking of driving licences can prove initially time consuming, the consequences could prove irreversible should an employee, who has not disclosed all aspects of their driving licence, be involved in an accident.



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# Is your child at risk?

Dr Romina Ghassemi shares a terrifying tale of poor posture and physical pain as a result of our obsession with technological devices

**Fact: 72%**  
of primary school  
children have  
suffered back or  
neck pain in the  
past year.

**POSTURE problems in young people are rising right under your nose. Are you a parent reading this article? Do you suffer from neck or back pain after a long day at work? Headaches, maybe? Did you wake up with pain? Maybe you didn't, but the other 65% of working population did.**

You don't stop eating because you are afraid of cavities. Then why do you expect the millennial to give up their smart devices? How many children do you see already in poor states of health? How many do you know personally?

Just like cavities, using smart devices puts us at risk. It's not about "What is wrong?" it's about how we react to it as individuals.

## Let me share a personal story...

It was a hot summer day and their laughter echoed like angels singing. The three 13 year old girls, Tina, Melisa and Helen, splashed around the pool as their parents barbecued and talked sports. Tom watched his daughter Tina play in the pool with her cousins.

As a doctor, he knew the long hours he worked were rewarded by watching his family enjoy themselves. The girls stood outside the pool, whispering and giggling. He noticed that Tina was standing a bit crooked and was slouching compared to her cousins. It caught his eye and his smile changed slowly to an

objective analysis. He watched Tina walk to grab towels from the other side of the garden when he realised that something was off. Her back was crooked. What had happened?

He called for his wife, Fay, a protective mum, who despite work, social life, and community involvement monitored her children like a mother bear. He turned to her with fearful concern, "What is going on with Tina?" She proudly replied, "I know she is growing up so beautifully, she reminds me of myself at her age, tall and slender." As she flaunted her hair with a smile, he looked at her... "What the hell are you talking about, look at her pelvis, her back, it's not right!"

Fay, wide-eyed, looked at her, then at him. "Tina, sweetheart, come here, come here!" Uninterestedly but dutifully, she walked over with her head and neck forward, her long wavy hair covering her slender thin body and rounded shoulders. Fay watched her daughter's hips and posture and remembered how she is more introverted around others, perhaps this was the reason.

Fay, a doctor herself, immediately did a posture analysis, "Stand up straight". She checked her head, ears, shoulder blades, back, pelvis, hips and knees. "Turn around honey". Tom stood there and looked at his daughter and wife, an unsettling feeling of concern wrapped around his stomach. Tina's head was 6" over

**Fact: 64%**  
of secondary and  
college students  
have suffered back  
and neck pain in  
the last year.

her shoulders. Her right scapula was notably rotated back and her right pelvis was 3" higher than the left side. "Mum, are you done? The girls are waiting for me."

Fay and Tom looked at each other in concern. Fay immediately said to Tina, "Honey, we will make an appointment with your godmother Romina, she will take care of you."

## At the office

I greeted my best friend Fay and Tina. I love these girls. The last time I saw them professionally they visited my clinic when Tina was 4 and had fallen off the kitchen counter.

I knew there was a problem. We walked to the examination room.

Fay shared her concern about Tina's posture and how in the past year she has been lying



on her beanie bag, creating movies, playing games and doing her homework on her laptop. She has been complaining of neck and back pain, with frequent headaches. She takes Tylenol to soothe them.

"We have been telling her to stand up straight, and she slouches", maybe she will listen to you. Last week at a BBQ we noticed that her pelvis was off, can you check her?"

I proceeded with my examination and X-rays. I sat in my office, looking at Tina's X-rays with tears pouring down my face and I thought, "How do I share this with Fay?" From the mirrored window in my office I could see them giggling over her nail polish. My voice became muted; I held back the tears as I drew lines, angles, and measurements on her X-rays. Oh my god, why did this happen? This is my baby girl!

I pulled myself together as I put on my white coat; "maybe the coat can give me strength" I thought. I pulled my hair back, cleared my throat, stood up and forced a smile.

I called them to the consultation room prior to showing the X-rays. I then started my explanation:

"Recently within the past few years there has been a notable rise in the number of young adolescents and adults suffering from neck, upper back and lower back pains. In the past we blamed heavy back packs, now we have an added insult to the growing fragile bodies of our children. The side effects of smart device integration in children's lives. In fact; Kaiser

Family research states, "On average 8-18 year olds spend about 7.5hrs a day on some form of smart device."

You see, there are 3 common factors that contribute to poor posture. These are:

1. Muscular problems
2. Structural problems
3. Functional problems

**Muscular problems** come from poor muscle balance, usually due to developed bad habits. Beanie bags, texting and the position of the neck while playing games on hand-held devices all contribute. In adults it could be poor ergonomics at work or when driving.

Usually most noticed with stiffness and muscle aches.



**Structural problems** are deeper issues.

Specifically speaking these are changes to the skeletal system. This generically is known as "Scoliosis". An X-ray can identify the source as being born with the problem (congenital) or as a development in later life (structural).

**Functional problems** are when the skeletal system and the muscular systems change to the point that the joints have lost their integrity and are not moving in correct aligned synchronicity. This will lead to early wear and tear at joints and creates bone spurs, fusions and early arthritis.

I showed Tina what a normal X-ray looks like from the front and from the side, explaining the importance of correct alignment.

I opened the view to reveal her X-rays. Fay gasped, tears welled in her eyes as she realised what this meant. Tina's jaw dropped. "That's not straight!"

"Based on your X-rays, it is evident that you do not have a congenital problem. You have a condition called adult onset idiopathic scoliosis. I believe your spine is reacting to the abnormal postures you've been adopting over the past few years and it has caught up with you on your growth spurts. Your body has changed due to the pressure loads as a result of poor postural habits and demands. This is noted in many ergonomic evaluations on adults. In the past children were more physically active and did not spend their time looking down other than at homework for few hours a day. That has changed dramatically with phones, tablets, laptops... now your body is reacting to these changes."

For every 1" that your head is off its centre, there is between 10-15 lb. of pressure loading on your spine.

From that day on we put Tina on a strict programme of chiropractic treatment, physical therapy, yoga therapy and hard bracing. Nine months later and \$30,000 in out-of-pocket expense we were able to make some changes to her spine. Tina will have to wear a customised brace for many years on a daily basis.

As a doctor we look at anatomical changes and fail to share with parents the psychological ramifications.

A growing child needs to develop his or her personality in society and matters such as confidence, ambition and social interaction are building blocks of a child's emotional IQ.

If a child feels he or she is different or has an imperfection, they try to hide their secret to avoid being ridiculed or bullied. That child's future is then put at risk.

As parents it's important to check your child's posture. To raise our future presidents, senators and world leaders we need to ensure they do not grow up insecure, introverted and unable to make the right decisions as result of poor self-image. A simple posture analysis and prevention will change your child's future, just maybe!

This personal story is to impress upon you the importance of educating today's parents so that our children are healthier. Together we can make a difference in more ways than you can imagine. I speak out because "I care". Join our team to educate, empower and promote better health through early detection and prevention.



**Dr Romina Ghassemi DC is a local practitioner and her baX-u**



**posture support won an innovative product of the year award in 2014. For more information about Dr Ghassemi and her work on community posture evaluation visit [SanPedroChiropracticAndPosture.com](http://SanPedroChiropracticAndPosture.com)**

# Bitten by bytes, computer pain is growing

What could those little pains and aches be that we feel when working with computers? Ian Chong is here to explain what it means when you've been bitten by bytes

## So you think you know pain?

Do you know what it really feels like to experience high level debilitating computer pain and associated frustration? Have you been "bitten by bytes"?

### Many computer users do!

Have you ever felt like:

- Your wrists have a spike driven through them?
- Your fingers are squeezed in a vice?
- Your hands are dipped in alcohol and set on fire?
- Your elbow got hit with a baseball bat?
- Your back just had a knife pushed into it?
- Your neck just met with a karate chop?
- Your shoulder had an anvil dropped on it?
- Your eyeballs are sizzling in a frying pan?
- Your derrière is sitting on a cactus spiked with poison ivy?

### Do you feel something gnawing at your flesh causing all these maladies?

That gnawing is you. Yes, you yourself. You are directly responsible for allowing these disorders that attack your anatomy, causing ongoing disruption, pain, frustration and down time. It's not because of using a

keyboard, mouse, stick or whatever. It's from not paying attention to your health and especially your pain.

These insidious results are injuries from everyday use of computer devices, all of which could get seriously worse if unattended.

### Hard to believe, is it not?

You see, all these pains and symptoms affecting your well-being, getting in the way of your work, pleasure and every day activities, are simply the result of your inaction.

Pain is a message to your brain from your body. Are you listening?

Unfortunately, your attention is mostly directed elsewhere to work on:

- Getting that database done
- Finishing that report
- Completing that spreadsheet
- Polishing up that digital graphic
- Finalising that design

Your attention is also focused on:

- Getting to the next level
- Shooting that alien
- Beating the Mario Brothers
- Texting your BFF
- Scanning that Facebook
- Snuffing those Twitter flames

Almost every waking moment you interact with a computer, a peripheral, device or attachment. Your office ergonomics transcends into personal ergonomics.

It is not only the desktop or laptop affecting you. It is also the multitude of other devices to which humans are becoming addicted.

- Mobile phones
- Tablets
- E-readers
- Gaming devices
- MP3 players
- Remote controllers
- Electronic toys

Yes, the allure of these devices is all around us, hypnotic and enticing.





Many cannot do without them for even a moment, as these devices replace:

- Dinner table conversation
- Face-to-face social interactions
- Social graces and manners
- Needs to see other humans

Entwined in both our professional and personal lives, these have become a constant companion, a friend, a conversationalist, a playmate and a distraction, one we can access at a moment's notice. And how do we use the fantastic devices? These things that can show us the universe, that can perform amazing feats and take our imaginations to untold levels?

We adopt bad postures and pain-inducing positions of hands, arms, shoulders and backs. Our children use continual bent thumbs, rounded shoulders and bent necks as they incessantly work their smart phones and tablets.

By doing this, we inadvertently damage ourselves, we invite these painful episodes. We invite the potential to be debilitated in our aging process. We go faster, faster, faster for longer, longer, longer and our bodies pay the price.

Are you reading this now on a mobile phone with a bent over neck posture? Are you reading this on your computer, sitting on the front edge of your chair hunched over or slouched without any back support?

Do you feel a twinge in your neck right now? Or perhaps in your fingers or in your rounded shoulders as you mouse?

These are warnings, which if left unchecked, will get worse, much worse.

**Understand, these pain elements and gnawing also take place even when we are not connected to these devices.**

*Currently about 3 billion computers exist in the world. It is estimated they will soon outnumber the human population and even now many people are attached to a computer device in some form 24/7, even sleeping with phones as these have moved from the nightstand to the bed. Truly, humankind is becoming inseparable from these machines.*

Do you feel a twinge here or there when you:

- Open a jar?
- Hold a pint of milk?
- Button your shirt?
- Pick up your new born child?
- Carry a bag of shopping?
- Brush your hair?
- Turn a doorknob?
- Work in the garden?

Do you feel these aches when performing any other innocent task or chore?

These unconsciously triggered twinges or pain symptoms are the residue of our recent interaction with computer devices.

Understand, these twinges and injuries occur when we are both in session with computer devices and when we are away from them.

We cannot escape their influence and should make a conscientious effort to mount a rigorous defence against such peril.

Yes, we are killing ourselves and soon these machines will eat us up, literally and figuratively.

Maybe we should call all these little innocuous computer injury events... bites,

caused by "Biters", more appropriately spelled BYTR.

The name obviously fits.

**So, what's the name of your computer?**



■ **Ian Chong CPE** is a real life, vastly experienced (lots of grey hairs), highly credentialed (plenty of boot marks on the backside), award-winning (numerous wall hangings), Certified Professional Ergonomist AND performing Magician, with an outstanding sense of humour, albeit somewhat nerdy. He also heart-warmingly admits to receiving many Starbuck lattes and gifts from the company store (mostly flashlights and golf balls) in thanks from workers, helping them keep their jobs, supporting families. Both his books "Ergonomic Mis-Adventures" and the ALMOST R-rated "Ergonomics of the Absurd" (pen name Alex Victor) are available on Amazon.

# Emergency! Five things a commercial property manager NEEDS to consider

Are you prepared for an emergency?

Jamie Truscott tells you what you need to consider

**AS property managers go, they seem to be organised and efficient types, to-do lists as long as your arm, properties to be managed and sites to be visited. But as a commercial property manager you also have the health, safety and ultimate well-being of mums, dads, brothers, sisters and friends in your hands.**

Recently I was enjoying a coffee at a London train station, when an announcement came over the tannoy about safety warnings. They were simply informing us that they were about to test the emergency messages. Like most of my fellow coffee drinkers, I listened to the part about it being a test, switched off and went back to catching up on emails. That was until "EVACUATION" boomed across the station concourse. We all knew this was a test didn't we? Of course we did, except for one lady who, in a panic, ended her phone call, spilt her coffee and grabbed her bags, only to eventually catch up with the rest of us and sit back down red faced.

This got me thinking about what a commercial property manager needs to consider prior to an emergency. We can all

plan for the expected, but people are always an unexpected element, leaving a large amount of risk outstanding.

Of course, you can't predict when an emergency is going to happen. But you can plan for them. To do this you'll

need to think about a lot of different factors. It'll involve consultation with different stakeholders, monitoring equipment, creating a communication strategy and serious planning skills, but will prepare you and your organisation for when an emergency occurs.



### 1. Create your emergency plan

An emergency plan, or emergency preparedness plan, is going to be your go-to document, your guide that sets out what you need to consider in preparation of an emergency, and what you do when an emergency happens.

Due to the expansive nature of such a document it's critical that you work with all key stakeholders, from board members through to facility managers, to ensure that this document has the right support and information to make it both authoritative and concise.

The emergency preparedness plan will go into a number of specific areas. These will be the personnel, the equipment within your property, the property itself (the building and the facilities) and what to consider after the worst happens.

At each point you'll need to make a list of all considerations, which will arise out of contact with stakeholders. The output of this document will be a list of actions and recommendations that should be put in place or explored and discussed, as well as guide for tackling an emergency itself.

Make sure that all actions and recommendations within the plan are explored and tested to guarantee the robustness of the emergency preparedness plan. A thorough test of the plan will help work things through and enable you to see what further actions must be taken.

Lastly, but perhaps most importantly, is communication. Having the support at all levels is vital here. Ensure that the emergency plan is read and signed off by all stakeholders and that the relevant parts are communicated to all people within the property so that should an emergency happen, everyone is as prepared as they can be.

### 2. The people

The people who work, occupy and service the property are the ones who are most going to suffer during an emergency, whether that's a burst pipe, a gas leak or even a fire. These are the people that the plan is for and these are the people that can help to turn a potentially life-threatening emergency situation into a success story.

It's important that not only are these people properly equipped to deal with all events, but that they have the right information to make quick decisions. That's why it's important to allocate and know which person handles specific aspects of emergency situations, so that on the day they can act rapidly and effectively. It's also vitally important that the people within the property knows who those people are.

Training should be given to the people playing an active role during or prior to an emergency so that they understand their responsibilities well and are able to carry them out effectively. UK fire legislation stipulates that continuous fire risk assessments are carried out to establish that the property has adequate fire safety precautions. Such assessments need to be carried out by so-called 'competent persons' trained to a sufficient level. They'll also have to update their training to meet requirements. For property owners, a competent person can also be a third-party assessor. Such requirements demonstrate just how important your personnel are to the safe running of your building.

This training should be reviewed regularly so that such knowledge is retained.

A list of emergency contacts should be given out and positioned at relevant points throughout the property for all to see.

### 3. The right equipment

Ensuring you have the right equipment and that the equipment is in good working order is equally important. It helps make the difference between a seamlessly executed plan and a serious life-threatening incident. The types of equipment you should have, and should have checked, are things like fire aid supplies, fire protection and suppression equipment. These include adequate fire extinguishers for the type of property, fire doors and other types of equipment such as evacuation, ventilation and communication equipment.

In an emergency situation, health and safety equipment really is put to the test and it becomes apparent just how important it is that checks are carried out when required. For different types of equipment there are different schemes in place, certification authorities and testing parameters. Keeping an inventory of all equipment that needs to be checked is a good idea, so too is having a single responsible person for managing all of this. By putting in place a single responsible person or third-party expert can ensure that it's all in working order for when it matters.

### 4. The building and the facilities

Treat each building you manage as unique. Each have their own personnel using those buildings in different ways, meaning the risks will be different for each. Therefore, each building should have its own safety risk profile.

From a practical point of view, that will mean each building having its own fire risk assessments, regular equipment checks and an understanding of the risks in those





*Fire is one of the largest causes of commercial insurance claims and the risk of fire within a commercial property is much higher than in a residential property.*

buildings. Each building also has its own features, such as sprinkler systems and fire alarms, as well as emergency exits, evacuation facilities, first-aid stations, fire signage and evacuation meeting points.

These need to be understood and communicated as part of your emergency preparedness plan. As before, an effective plan will only work if all responsible people understand what they need to do prior to and during an emergency and that this is also regularly communicated downward to all staff and contractors.

#### 5. How robust is your plan? Have you thought about what happens afterwards?

Not only must you think about what you need to do should an emergency occur (hopefully you never have to deal with one), but it's vitally important for the safety of all and to prevent further damage to your property, that you know exactly what should happen after an emergency.

This means, in the case of a fire, close communication with the fire services, or close communication with police or ambulance services in other types of events. It also means thinking about rebuilding, repairing and insurance cover.

A regular reinstatement cost assessment is the only way to be sure that your building is insured for the correct amount in an ever changing property and construction market. You also need to ensure your emergency planning feeds into a disaster recovery plan so that post-emergency yours or any business using your property can continue to operate.

You may also need to consider doing the following:

- Contacting your insurance company
- Contacting gas, electricity and water suppliers
- Get installations and utilities checked and repaired by a qualified person

The most important thing to remember is that the success of any plan rests on the ability of those individuals to carry it out. Ultimately it's about communication and ensuring that everyone buys into it, understands their own responsibilities and the responsibilities of the team as a whole. It also needs regular stress testing so that people can see how it works in the real-world. It could be a matter of life or death.



■ **Jamie Truscott**  
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