

Ergonomics management in remote working in the post-COVID-19 era

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The future of work became a prominent discussion item in global occupational health and safety conversations in the latter part of the last millennium. Predictions about the new kinds of work and changes in employment patterns were projected to 2030, but little did we know that the COVID-19 pandemic would force remote working on the global working population. While lockdowns have relaxed in many countries, working from home is here to stay. According to the 2021 Buffer study on the state of remote work, 99% of participants stated that they would prefer to work remotely, at least some of the time, for the rest of their careers.¹ According to a British Broadcasting Corporation (BBC) report, 50 of the biggest UK employers have no plans of returning all of their employees to full-time office work in the near future.² Some organisations are calling for 100% remote work, with no physical office work whatsoever.

Remote work has become a legacy of the COVID-19 pandemic. Before the compulsory lockdowns, most organisations had no plans for remote work. Initially, many employees struggled to adjust to working from home – and many are still struggling. The transition was abrupt, with few opportunities for adequate education and training on safe and healthy remote working, or to make provisions for adequately equipped home offices. This has resulted in workers developing back pain linked to poor remote working conditions. The growing burden of poor ergonomics, mental health issues, and increased sedentary behaviours, are global concerns. Conversations with Nigerian organisations have revealed that there have been several engagements with employees about mental health issues and sedentary behaviours, but little has been done with regard to training and awareness about ergonomics while working from home. Increases in employee hospital visits due to pain in the lower and upper back, neck, wrist and eyes have been observed.³ We have made similar observations in Nigerian organisations. Pain management is a delicate issue that is better prevented than managed. Pain is linked to insomnia and this also has the potential to negatively impact employees' productivity if not controlled.⁴

There are still a number of struggles with understanding the true meaning of ergonomics. Some people see it as the provision of adjustable seats, desks and/or workstations, but the truth is that one can have these adjustable work tools and still suffer from musculoskeletal disorders. In 1949, Murrell coined the word 'ergonomics' from two Greek words – *ergon* meaning work and *nomos* meaning law.⁵ It is the law of work. According to the International Ergonomics Association, it is the scientific understanding of the interactions between human and other elements of a system.⁶ It is not the sophistication of the work tools that matter but the way in which they fit or compatibly align with the physical body structure of the user. Office workstations can be occupational hazards worsened by lack of ergonomics planning when working from home.

From interactions with employees from different organisations, we

have realised that, in spite of the sudden relocation of work from the office to home, some organisations have made thoughtful provisions for their workers, e.g. reimbursing employees for adjustable seats and desks, or allowing employees to relocate their work desks and seats to their homes. However, many employees have been left to work from makeshift workstations and desks, coffee seats, sofas, kitchen seats and beds. This was alluded to in the recent report from BUPA, which stated that more than 11 million Britons are now in pain from working from home, and that only 32% have dedicated workplaces in their homes.³ At the start of the pandemic, no one knew how the long lockdowns would last, so these inappropriate work tools were manageable in the acute stage. However, over time, workers started reporting illnesses and disabilities related to poor ergonomics.

It is reported that four in five workers who started working remotely during the lockdowns have developed some form of musculoskeletal disorder.⁷ The report placed low back pain at 50%, neck pain at 36%, and shoulder pain at 28% of harm to employees, while 46% of employees said that they had been taking painkillers more often than they would like to have done. These outcomes are associated with poor body postures while using incorrect work tools. There is a need to address this at both national and enterprise levels.

Modern workplaces and work processes are characterised by many different kinds of devices, and every new technological device comes with its own risks. Most devices, including laptops, were not designed with ergonomics in mind, and the safety and wellbeing of the users were not adequately considered. When using these devices, we need to think of ways to use them safely. With more than four billion people accessing the Internet via smart devices for both work and leisure purposes, we need to acknowledge that there is a high potential for illnesses that did not exist two decades ago.⁸

While working with these devices, the body is in awkward postures, including hunching or tilting the head downwards, which places an increased load on the vertebral column. The average human head weighs 4–6 kg – a load on its own. Correct placement reduces upper back pain.⁹ When we tilt our heads forward by 15 degrees, the load placed on the vertebral column increases by 13.5 kg and this further increases to 25 kg if the heads is tilted by 45 degrees. One of the main laws of ergonomics management is the proper body positioning of the neck and head, and adoption of a neutral body posture. This is achieved through the correct use of adjustable work tools, especially in the remote workspace.

Risk is always measured by duration and frequency of exposure. While remote working has created a blurred line between our private time and work time, it is important to remember the importance of taking intermittent breaks. We need to resist the temptation to be glued to our laptops all day by being intentional and personalising our health and wellbeing. We need to take regular breaks, and get off our seats to stretch, walk and gaze into the distance for a while,

to relax the tensed muscles in our limbs and eyes. The body adjusts to bad postures developed through prolonged sitting. Such postures can become 'normal' to the body, making it increasingly difficult to regain normal postures as the correct position is deleted from muscle memory and replaced with the new, incorrect one. This increases tension on our back, neck and shoulder muscles, and bones which, in turn, causes irreversible changes in the skeletal structure. We should not trivialise awkward body posture or poor ergonomic conditions as they can lead to irreparable damage.¹⁰

Employers are beginning to analyse and use the findings to create smart interventions for their workplaces. But where do we begin? There is no one-size-fits-all approach. Employers need to listen to their employees to understand their concerns and where the risks lie. A starting point is remote work risk communication. We might have missed this at the start of the lockdowns, but it should be part of continuous and daily communication with employees. Employees need to be heard in order to identify areas where they need support. The need to profile employees is also a key aspect to consider. This will help us to identify employees with existing ergonomic conditions, for whom organisations may have already catered by providing chairs and desks to ameliorate those concerns. Such employees have now been working from home for more than a year, while the chairs remain unused in their offices. Companies should consider allowing these employees to take their chairs home to set up home offices. Continuous training on how to adjust work tools is also very important. This could be done weekly for five minutes during meetings.

A popular concept for ergonomics management is called 'NEW':

Neutral posture: it is expected that this posture is maintained while sitting or standing to keep the pelvis out of awkward positioning to avoid pain.

Eye and elbow height: whatever type of desks or seats are used, ensure the keyboard is well positioned at elbow level while the top of the monitor should be at, or slightly below, eye level. This prevents tilting of the head or hunching over the monitor, both of which are sources of body pain.

Work area: both primary and secondary work zones need to be created. The areas on your table where your hands can reach without difficulty are your primary areas, and the materials frequently used should be kept within those areas. Secondary work zones are areas within the outstretched arms where materials that are not frequently used should be placed.¹¹

While some employees may have decent ergonomically designed seats for work at home, others improvise by creating ergonomic comfort with their existing seats. Placing a thin pillow on your seat can make an ordinary chair much more comfortable, with the pillow offering lumbar support to the spine. Many household items can be used for work comfort; for example, placing a firm cushion or a tightly folded towel under the buttocks will raise the hips and increase the curve of your spine, making sitting more comfortable.

The 20:20:20 rule is good for control of eye strain. Learn to take micro breaks of 20 seconds every 20 minutes and stare at things that are at least 20 feet away. This helps reduce eye muscle tension. The need to take intermittent 'stretch breaks' is also crucial – use this to create changes in body postures and to stretch. Incorporate this into your daily work plan and, where possible, set reminders on your phone. Placing your printer in another room is also helpful as this makes you leave your seat for micro breaks to collect printing.

We should place our work equipment in such a way as to avoid awkward body positioning. For example, ensure that monitors are placed

50–100 cm (above and arm's length) from the eyes. The distance from the eyes should be about 50 cm when using small screens, and greater as the screen size increases. A laptop stand is useful for maintaining correct monitor alignment. If your feet are not flat on the floor once the seat's height has been properly adjusted, you may need a foot rest to allow your hip bones to align properly. This will help avoid the pain that will come from this part of the body. If you do not have a foot rest readily available, you can improvise by placing cartons, piles of books or stacks of clothes under your feet.

Smart prevention exercises also help, as described below.

Eye rolling and eye rest: close your eyes and roll them clockwise all the way round, three times; repeat the process anti-clockwise, three times. Like the 20:20:20 rule, this helps release the tensed muscles in the eyes.

Warm-up: drop your head gently to your chest while breathing in and slowly roll your head up to your left shoulder. Then, while breathing out slowly, roll your head back to centre. Repeat this on the right side. Three repetitions on each side will do. This helps relax the tensed muscles in your neck and aids flexibility in movement of the head.

Head tilt: maintain a neutral position and tuck in your chin. Slowly tip your head to the left then return to the centre. Then tip your head to your right and return to the centre. Repeat this three times on each side.

Head turn: in a neutral position, slowly turn your head and look over your left shoulder. Hold for a few seconds, then return to the centre and repeat the exercise on the right. Repeat this three times on each side.

These exercises give you another opportunity for micro breaks and help release tension from your neck, shoulders, eyes, and back, which are prone to ergonomic-related conditions.

Work life is only for a season but your life must continue after work. While we are all busy in our different job roles today, let us keep in mind that any harm to our bodies will have consequences in the future. The cumulative effects of poor ergonomic behaviours should be duly considered while working remotely. We must continue with ergonomics education on remote working, and organisations must endeavour to provide all necessary administrative support to ensure that employees remain well and productive.

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OSHAfrica TV Online will launch in July 2021

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One of the mandates of OSHAfrica is to bring occupational safety and health (OSH) experts in Africa together for collaborative work and sharing of data. We have been on this path for more than three years now, and we have learnt that we also all need to know what is happening within the OSH ecosystem of each member country.

In our quest to learn and understand more, we developed the idea of OSHAfrica TV Online – a medium that will enable us to talk to Africans and to know Africa better. We can no longer assume that work is progressing across Africa within the space of OSH; we need to share stories and use them for learning and improvement in other countries. We will be spotlighting a different country every month in one-hour live programmes, which will include the ministers of labour and employment or the directors of OSH of those countries speaking to our viewers. This will help us all keep abreast of OSH developments across Africa.

Many institutions across Africa have done so much in the field of OSH, and showcasing this work and celebrating the actors behind the projects will hopefully inspire them to do more and motivate others to learn from these practices. In addition, there are international OSH agencies with roles and mandates in Africa and for Africans that are neither clear nor adequately understood by most Africans. These organisations will also be showcased.

This is a space from which we will continue to sell OSH practices in Africa to the world, and help the world to understand African OSH systems and developments. While there are many African countries that are doing well in OSH, we will also be able to use this medium to spotlight countries that are struggling within the space, help them

identify their areas of weakness, and garner support for them in scaling up their OSH programmes. If we are to build a strong OSH ecosystem across Africa, the strong among us must support the weak among us. These are only some of the issues that we will be addressing through the OSHAfrica TV Online project.

As the name implies, OSHAfrica TV Online will be live and online, with links to join the show provided and a platform for viewers to submit questions to our guests in real time. Those who miss the live shows will have the opportunity to watch the recordings on the OSHAfrica YouTube channel.

More information will be communicated shortly, before the launch of OSHAfrica TV Online.

