COBA africa

#StandUpForHealth

Prolonged sitting and standing in the workplace has become a well-debated subject. This publication looks at the health and safety implications of working in static positions, whether sitting or standing, highlighting the problems, while recommending solutions for safer work places.

Release 2: 2019

Foreword

Welcome to the 2019 release of **#StandUpForHealth**, an updated version of the original eBook first published by COBA Europe in 2017. Since its launch, we are pleased to say that #StandUpForHealth has been downloaded by many industry leaders in Health and Safety, as well HR professionals and expert practitioners around the globe.

As one of Europe's largest manufacturers and suppliers of workplace safety matting, alongside our specialist entrance matting products, we are passionate about raising awareness in safe standing (and sitting) in the workplace.

One of the reasons we produced the eBook is to educate people on this subject, and in doing so, it is our aim to help prevent many work-related **Musculoskeletal Disorders** (MSDs). We use the word '**prevent**' deliberately because MSDs can, in many cases, be prevented. Products such as anti-fatigue matting can make a real difference.

Since releasing our original eBook, there has been extensive media coverage and debate on prolonged sitting and standing in the working environment. Too much sitting, we are being advised, is not good for our health and we are being encouraged to stand and move more regularly during the working day.

Sedentary behaviour is the term given to sitting for more than four hours a day – for those of us who have desk jobs this is quite a startling statistic. It's a reason why adjustable sit/stand desks have become more popular. I am pleased to say we have these in our offices at COBA and we haven't looked back. We use them in conjunction with COBA's Orthomat® Office **anti-fatigue** mats.

There are of course risks associated with prolonged standing. Regular occupational standing on hard surfaces can be detrimental to health and lead to foot, leg and back pain issues. It is why we have developed anti-fatigue mats for many different environments to make standing more comfortable, and hopefully safer.

We hope you find **#StandUpForHealth** (2019) an interesting and informative resource to help making standing safer in your place of work. It features some of the latest MSD statistics and the most recent results from COBA's Standing at Work survey. We would also like to thank **The College of Podiatry** for its contribution.

If you need any further advice, our knowledgeable sales advisors in COBA's facilities throughout Europe and South Africa, will be pleased to assist. With **40 years of experience** in the safety matting industry, we confidently support you with all your **safe standing** objectives.

Chris Stanley
Sales Director
COBA Europe Ltd

‘To **Sit** or to **Stand**?’ That is the Question

Since the release of the first edition of our eBook **#StandUpForHealth** there has been extensive press coverage on the subject about the problem of sedentary lifestyles, and whether it is better ‘To Sit or To Stand’ in the workplace.

The argument for standing more and sitting less has certainly gained momentum. More people around the world are becoming aware about the increased risk of health issues that are believed to be associated with prolonged sitting. It appears that standing, when safe to do so, is generally considered by many health professionals to be better for us, than sitting for long periods of time.

Guidance from Public Health England

Public Health England has issued guidance that workers should get up and stand for at least two hours a day, eventually building this up to four hours a day. It is recommended that we take a break from sitting every 30 minutes.

The same panel of experts also say that prolonged static standing may be as harmful and recommend altering posture or walking (moving around) to alleviate musculoskeletal pain and fatigue.

Striking the right balance between sitting and standing is imperative. Regular changes of posture are recommended with breaks and rotation of tasks.

Sit-stand desks can be helpful for office staff who would normally sit for the majority of their working day. In fact, over 90% of office workers in Scandinavia use sit-stand desks as there is a general consensus of opinion that many employees feel healthier and happier as a result.

Standing for long periods of time on a regular basis carries its own set of risks such as musculoskeletal disorders, foot ailments and circulatory conditions, such as Varicose Veins.

Many can be prevented. Standing should always be introduced in the workplace in a safe and comfortable way.

It does, for some organisations, require a culture of change for which many are seeing positive outcomes in the health and well-being of their staff, as well as increased productivity. Those who regularly exercise out of working hours should also take heed that this does not necessarily offset the risks of prolonged sitting during the working day.

This is certainly not discouraging physical exercise, but it is about promoting the health benefits of regular movement and postural change.

Sedentary Behaviour

Obesity, heart disease, back ache, diabetes, dementia, depression, cancer and muscle degeneration become higher risks to those who are physically inactive and lead sedentary lifestyles. Sitting for just four hours a day could be harmful, some experts claim.

Global studies reveal, on average, people are seated 7.7 hours a day, and some estimate people sit for around 15 hours a day. Much of this ‘sedentary behaviour’ takes place at work. In Great Britain, the average for people sitting is 8.9 hours per day according to a UK campaign website.

#StandUpForHealth

This, COBA Europe’s updated 2019 eBook, examines the latest facts surrounding prolonged sitting and standing in the workplace.

Source: Public Health England

Sedentary Behaviour: The Risks

Scientific Research

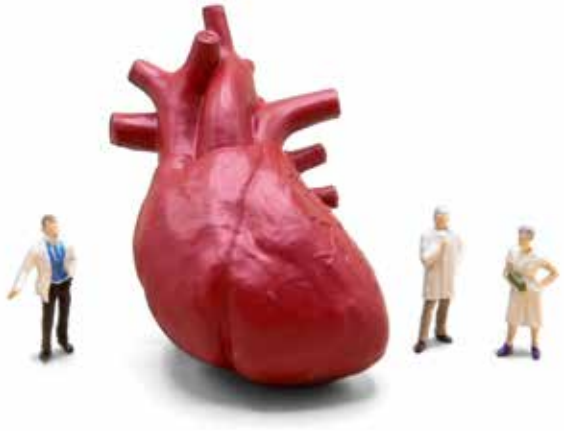
A study carried out by researchers from Loughborough University (involving almost **800,000** people globally) compared the shortest time spent sedentary with the longest time spent sedentary. For the **longest amount of time**, there was:

147% — **Increase in the risk of cardiovascular events**

112% — **Increase in risk of contracting Diabetes**

90% — **Increase in death due to cardiovascular events**

49% — **Increase in early death due to any cause**



The **Researchers** Say:

"Sedentary time is associated with an **increased risk** of diabetes, cardiovascular disease and all-cause mortality."

Sedentary Behaviour

Sedentary behaviour is the term given to sitting for 4+ hours a day. Some health professionals warn this is the equivalent to **smoking a pack of cigarettes**. Many adults sit for more than 7 (**some up to 10**) hours a day.

Did **you** know that?

Just two hours standing can burn an additional **100 calories** – that's about the equivalent of **one chocolate digestive biscuit**! It's also about **50%** more calories than sitting.

Public Health England recommends

That we stand with light activity for at least **2 hours** during our working day, building eventually to a total of **4 hours**. This is one reason why sit/stand desks have become more popular.

The **NHS** warns:

"Studies have linked **excessive sitting** with being overweight and **obese**, type 2 **diabetes**, some types of **cancer**, and **early death**. Sitting for long periods is thought to slow the metabolism, which affects the body's ability to regulate blood sugar, blood pressure and break down body fat."

Take the **Sitting Calculator** Test:

Commuting to work (by car, bus or train) + sitting at a workstation + sitting down for mealtimes + watching TV + sleeping = **Total Sedentary Time**. It all adds up!

= **Total Sedentary Time**

#StandUpForHealth

Health experts around the world are advising us to stand more, and sit less. **Standing at work** is important for health, but it's vital that we do it safely and comfortably to reduce the risk of associated musculoskeletal strains and injuries (**MSDs**).

If your job involves Prolonged Sitting

The message is not saying 'don't sit at all'. It is however recommended that you stand, and move around every **30 minutes** for at least 5 minutes. Alternate between sitting and standing, rather than staying in any one posture. Consider a **sit-stand desk**.

If your job involves Prolonged Standing

Change posture regularly and stand as tall (upright) as you can – ideally keeping shoulders and back aligned and don't slouch. **Avoid locking your knees** (bend them slightly if you can). Walk around at set intervals rather than standing still. Consider **anti-fatigue matting**.

Don't stand too still

There are risks associated with standing too. Regular standing in **static positions** affects our circulatory system and can diminish elasticity in the soft tissues, as well as damage to joints. Veins are subjected to increased **pressure**. Regularly standing for **long periods** of time can lead to a whole range of health conditions such as varicose veins, lower limb **MSDs** and back pain, as well as **foot problems** such as corns, blisters and bunions. Read more about foot problems caused by standing in The College of Podiatry article on **page 9**.

Strike the right balance
for improved health!

#StandUpForHealth

Did **you** know that?

Anti-fatigue mats can help blood circulation. As the feet subtly adapt to the cushioned surface, blood circulation is stimulated as the foot and calf muscles expand and contract, activating the venous pump, which pushes blood back up to the heart. They help to reduce the onset of pain and tiredness, and can help to prevent work-related MSDs. A survey conducted in 2018 by COBA Europe also revealed that **82% considered anti-fatigue matting to have a positive effect on increasing productivity in their company.**

The **Problem** with Sitting

It appears that inactivity (sedentary lifestyles) could be a silent killer and that is why we are being urged to stand more both at home and in the workplace. Prolonged sitting has been dubbed '**the new smoking**'.

Recent research suggests that prolonged sitting is now linked to serious health risks, such as Type 2 diabetes, heart disease, cancer and even **premature death**. This even applies to people who are fit and exercise regularly.

Following extensive research, it is now believed that prolonged sitting may **slow the metabolism**, affecting our body's ability to regulate blood sugar, blood pressure as well as its efficiency in breaking down body fat.

Too much sitting can lead to increased fat around the abdomen (**visceral fat**) which is fat that surrounds our internal organs including the liver, pancreas and intestines. Visceral fat can be harmful and is linked to many different health problems.

Sitting for too long can also lead to weaker muscles and bones, as well as neck, lower back and joint pain. Sitting **compresses** vertebrae putting pressure on discs. Blood accumulates in our legs.

It is also believed that prolonged sitting (and general inactivity) can affect mental health too, increasing the risk of depression and anxiety.

In the UK, the NHS has issued official guidelines and recommendations about why sitting for too long is bad for our health in the form of the '**Start Active, Stay Active**' report and has published a web article entitled: '**Why we should sit less**'.

For those with jobs that involve prolonged sitting, it is recommended that you get up and move around every **30 minutes**, possibly standing while on the telephone or in meetings. Set a timer if it helps.

Standing boosts the metabolism which helps to burn calories. It also tones and improves muscles, helps posture and circulation. Breaking up sitting, with even a few minutes standing and moving around, is considered to be beneficial for our health.

It is believed that the average adult may spend **50-60%** of their day in a sedentary state (either sitting or lying down). **Sedentary behaviour** has been defined by some as sitting for 4+ hours a day.

When we sit we put pressure on our neck, shoulders, back and internal organs. But, it is also believed that any repetitive static position is harmful, which is why regular postural change is beneficial.

The **Problem** with Standing

While it is widely recommended that we should stand more, there are risks associated with regular prolonged standing, including **Musculoskeletal Disorders** (MSDs), injuries or conditions affecting the movement of the human body, or the loco-motor apparatus.

Prolonged standing can also be dangerous to those who have an existing health problem such as cardiovascular disease, as it makes the heart work harder, and remaining in a static position is known to be harmful to the circulatory system.

Hard, cold concrete floors are considered the worst type of floor surface to stand on, and yet they are common in many of the industries that demand a standing workforce, such as **Distribution Centres, Warehouses, Production Lines and Factories**.

This is why many working environments now use **anti-fatigue mats** to cushion the impact and insulate the feet from cold floors.

Common ailments from prolonged standing include:

- **Varicose Veins**
- **General pain and swelling of the legs, feet and ankles**
- **Low back pain**
- **Joint damage**
- **Bunions and corns**
- **Achilles Tendonitis**
- **Plantar fasciitis**
- **Circulatory problems**
- **Hypertension**

The Science of **Standing**

Let's take a look at what happens to the human body when we stand.

Standing affects our circulatory system (especially the **Venous System**) which is responsible for moving blood throughout the body via our veins. When we stand, we subject increased pressure on the walls of our veins, and if standing in a static position, that intensity increases.

Think of the heart as the central pump in the circulatory system. With each beat, the heart pumps blood through the vessels, which transport oxygen and nutrients to all tissues and arteries of the body. **Oxygenated blood** leaves the left side of the heart.

The arteries carry the blood away from the heart and the veins return the blood back up to the heart. The foot has many tiny **complex veins**. Veins in the legs have one-way valves to help blood flow back to the heart against the force of gravity.

The **main venous return pump** is in the calf muscle. The blood pushes through the valves toward the heart and the valves close to prevent backward flow. With each step that we take when we walk, **the foot and calf muscles contract** which forces the blood up through the venous system against gravity back up to the righthand side of the heart.

As tiredness creeps in, joints such as the ankles and knees can **tense** up and become locked. There is a tendency to shift weight from one side to the other, which increases the release of muscular energy, and in turn can lead to **fatigue**.

When we stand we subject the walls of our veins to increased pressure which can cause long-term damage.

When standing still, gravity causes fluid to settle in the feet and legs, which in turn can create pooling and swelling. Regular standing in **static positions** can slowly diminish elasticity in the soft tissues. This degenerative damage can lead to **rheumatic diseases**.

Research into venous pressure on a group of workers found the pressure was **56mm** when seated and **87mm** when standing.*

The pressure dropped to **21mm** after taking 10 steps concluding that walking for two to four minutes after every **15-minute period of standing** was more comfortable than standing without walking.

While this is a simplified explanation of what happens to the human body when standing, a more detailed account about how **prolonged standing** affects foot health can be read in the Expert Opinion provided by **The College of Podiatry** on page 9.

"Standing for long periods without movement can affect muscles and lead to fatigue and pain through reduced blood circulation."[1]

*Source Konz S, Johnson S, Work Design 1-629,2000; [1]Source HSE

Expert Opinion: Prolonged Standing

The foot is one of the most complex structures within the body. It is made up of **26 bones, 33 joints and over 100 tendons**, muscles and ligaments, taking the whole weight of the body. **Prolonged standing** can place a lot of strain on the feet, so it is vitally important to take care of your feet to prevent injury and keep them in good working order.

Prolonged standing can lead to several foot and lower leg problems. These include **varicose veins**, which develop when the small valves inside the veins that prevents the blood from flowing backwards stop working properly. Prolonged standing can cause the valves to fail resulting in the blood pooling in the veins making them visibly twisted, swollen and often painful. This can then cause **swollen feet and legs** in a process also known as oedema. In severe cases skin changes such as eczema and even ulceration can occur.

In addition, prolonged standing places significant **pressure** on the joints of the hips, knees, ankle and feet. When standing with little movement, it can reduce the normal lubrication and cushioning to joints, which can cause tearing when they do move. The combined effect of pressure and tearing can cause **extensive amounts of pain** and make it difficult to move or walk. Muscles kept in constant stress quickly become fatigued, resulting in poor posture that can lead to lower back pain and generalised foot pain such as plantar fasciitis (pain in the heel and arch), and Achilles tendonitis.

Prolonged standing may not directly lead to heart disease, however, it **can make existing heart problems worse** as it can change the way the blood flows to the extremities. Research has shown that this can cause sluggish blood circulation that can affect the arteries and lead to the formation of atherosclerosis – literally **artery narrowing**. This occurs when a plaque of fat, cholesterol, calcium and other substances found in the blood builds up inside the artery wall and can make it narrow.

Meet the Expert: Krishna Gohil - Specialist Podiatrist

Krishna qualified as a podiatrist in 2001 from the University of Huddersfield, with a BSc (Hons) Podiatry, and continued to gain a postgraduate certificate in Public Health from the University of Wolverhampton in 2007. Krishna works in the NHS as a diabetes and high risk specialist podiatrist who manages a high risk case load of patients with circulatory, neurological deficits and reduced tissue viability to complex medical conditions, diabetes, MSK, dermatology, rheumatoid arthritis, and peripheral vascular disease.

Feet are for life, so it is vital that they are cared for and preventative measures are taken to ensure they remain healthy. Wearing the right shoe for the job can help prevent accidents and protect your feet and toes from injury. If you work in heavy industry and have been given an official pair of safety shoes, wear them (they should bear the '**Kitemark**' sign which means they meet British standards). Domestically, you should always wear hard-top shoes when operating grass-cutting equipment.

Studies have shown that **standing on a cushioned floor** or wearing cushioned insoles in well-fitting comfortable walking shoes with thick but flexible soles can reduce pain to muscle and joints caused by prolonged standing. **Cushioning either in the shoe or on the floor** can also help support the foot, by absorbing shocks and redistributing weight.

Shoes should have a lace-up fastening that **holds the heel in place** and prevents the toes from sliding into the toe box of the shoe and there should be enough room at the top to allow the toes to move freely. Leather 'uppers' and man-made soles are a good combination. The shoe lining should be wrinkle-free and without rough or obtrusive stitching. If you work in wet conditions, you must wear waterproof footwear and socks which are thick enough to keep your feet warm, but not too tight to affect your circulation.

Never wear loose fitting shoes that may slip on highly-polished surfaces.

It is important to move around and change posture regularly, this will help keep **circulation flowing** and can stop swelling.

Compression hosiery can also help with varicose veins or swollen feet, but this may not be suitable for everyone, and should seek medical advice first.

If you do have any problems with your feet it is important to seek the advice of a HCPC registered **podiatrist** as they are trained to diagnose, prevent, rehabilitate and treat problems with the feet and lower limb. You can search for a podiatrist in your local area on the College of Podiatry website - **www.cop.org.uk**

While the foot may be complex, with the right advice and guidance it's relatively straightforward to maintain and simple to manage for a lifetime of good service.

The COLLEGE of PODIATRY

Sitting & Standing

All workstations, whether sitting or standing, should be ergonomically designed and regular risk assessments should be conducted.

Workplace Tips for **Safer Sitting**

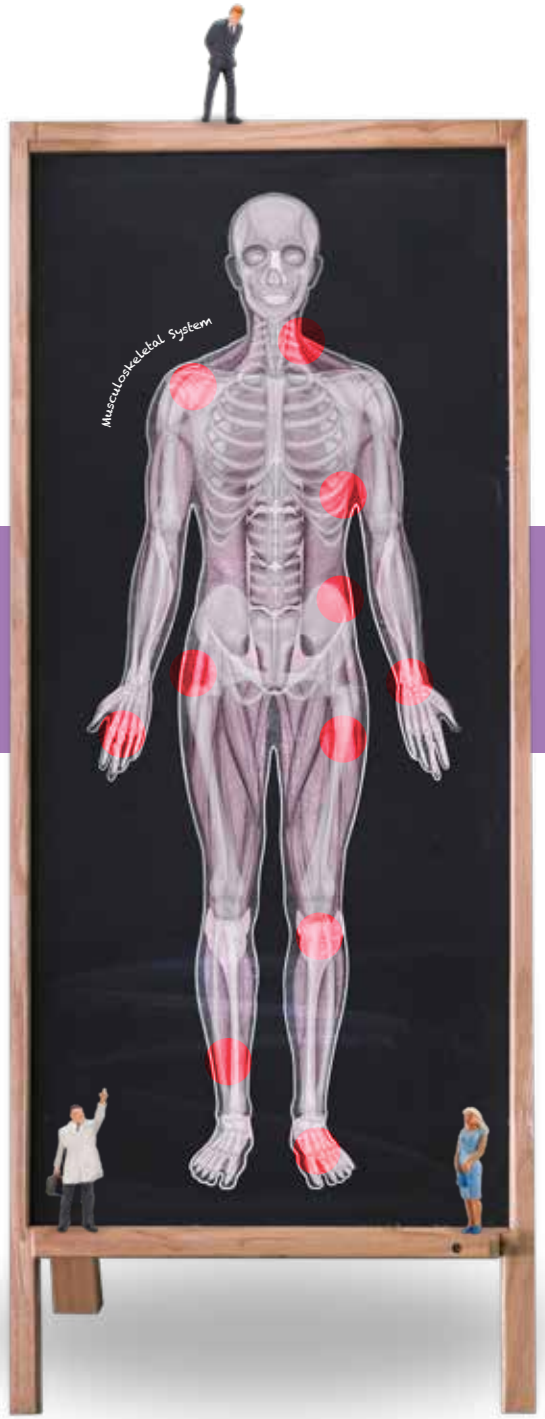
- Sit into the back of the chair.
- Align your shoulders with your sit bones so you are sat **upright** in the neutral position.
- Tip your pelvis slightly forward to relieve pressure on your spine lumbar area.
- Make sure your desk or workstation is positioned at a **comfortable height** that doesn't require you to round your shoulders or lean forwards.
- Sit with your feet flat to the ground.
- Take a break from sitting every **30 minutes** – set a timer if necessary.
- Change posture and walk around if possible – **take a stretch.**
- **Stand** during telephone conversations.
- Have standing or walking meetings.
- Don't eat your lunch at the desk – **take a walk** instead.

"If you work at a desk consider a sit-stand workstation to help alternate posture."

Workplace Tips for **Safer Standing**

- To help correct your standing posture, imagine a string attached to the top of your head pulling you upwards.
- The idea is to keep your body in perfect alignment, maintaining the spine's natural **curvature**, with your neck straight and shoulders parallel with the hips.
- Keep your shoulders back and relaxed.
- Pull in your abdomen.
- Keep your feet about hip distance apart.
- Balance your weight **evenly** on both feet.
- Try not to tilt your head forward, backwards or sideways.
- Keep your legs straight, but knees **relaxed**.
- Wear comfortable, supportive footwear suitable for your working environment.
- Don't stand in a **static position** – move around and change posture regularly.
- Consider **anti-fatigue mats** to promote subtle movement and prevent MSDs.

Train managers, communicate with employees and share posters around the workplace to make sitting and standing at work a safer experience. Introduce a Sit-Stand Policy if appropriate.



MSDs in More Detail

What are **MSDs?**

The abbreviation MSD stands for Musculoskeletal Disorder. **Musculoskeletal Disorders** are injuries or conditions affecting the movement of the human body, or the **loco-motor apparatus**. They are problems that affect the muscles, tendons, ligaments, vascular system, nerves, soft tissues, bones and joints.

Symptoms can creep on gradually, and progressively get worse leading to more acute pain. Movement can become increasingly restricted. If an MSD is a result of an accident or physical exertion, causing a sprain or strain, then acute pain is usually experienced immediately. They can happen to all genders and age groups, but the risks increase with age. Many MSDs are, however, **preventable**. Treatment depends on how advanced MSDs have become and **early intervention is essential**.

"MSDs are currently the most common work-related condition in the EU. They are expected to affect some 50% of the population by 2030."*

Common **Problems** Include:

- **Pain**
- **Inflammation**
- **Tenderness**
- **Pins and needles /numbness**
- **Burning**
- **Muscle spasm and/or weakness**
- **Lack of movement/flexion in joints**
- **Crepitus – crackling sound when tendons are pressed**
- **Reduced or lack of grip**
- **Ganglion – cyst-like swellings**

Body Areas Affected:

- **Upper and lower back**
- **Neck and shoulders**
- **Hands and wrists**
- **Hips and thighs**
- **Knees**
- **Calves**
- **Feet**

*Source 5th European Survey on Working Conditions

14
Days
Average Time Lost Due to Each MSD Case

6.6
Million
Working Days Lost Due to MSDs

Work-Related **MSDs**

While the original cause may not be due to an event at work, or even the working environment itself, it is acknowledged that MSDs are often aggravated or made worse by a person's work.

Of course, tasks carried out at work that involve repeated exposure to bending and lifting, poor posture and prolonged standing either on a repetitive or prolonged basis, are common causes of MSDs. **The problem should not be ignored.**

Work-related MSDs are widely regarded as the **most common** occupational disease in Europe, affecting millions of workers every year across all types of employment sectors.

MSDs are prevalent across both developed and developing countries. They can cause immense suffering, long-term sickness absence and even **permanent disability**.

In 2017/18, an estimated **6.6 million** working days were lost due to work-related MSDs in Great Britain, an average of **14 working days lost for each case** according to the 2017/2018 Labour Force Survey.

MSDs represented **24% of all days lost** to work-related ill health in Great Britain in 2017/2018.

*Source HSE MSD Statistics Great Britain 2017/18

MSD **Types**

MSDs are usually categorised as ‘Lower Limb MSDs’, ‘Back Pain’ and ‘Upper Limb MSDs’

1.7
Million
*Working Days Lost**

Lower Limb MSDs

Conditions to the hips, thighs, knees, calves and feet.

Causes Include:

Squatting or kneeling
Prolonged standing

Conditions Include:

Osteoarthritis, Knee Bursitis, Mensical Lesions/ Tear Damage, Stress Fracture/Reaction injuries, and Varicose Veins.

2.2
Million
*Working Days Lost**

Back Pain

In Europe, 24.7% of workers complained of work-related backache.

Causes Include:

Lifting/carrying - Standing/sitting
Gripping/pushing/pulling

Conditions Include:

Lower Backache, Upper Backache
Muscle Strain, Ligament Strain.

2.6
Million
*Working Days Lost**

Upper Limb MSDs

Aches, pains, tension and disorders such as inflammation to the upper part of the body including the hands, wrists, elbows, arms, shoulders, neck, and back.

Causes Include:

Repetitive strain
Poor posture

Conditions Include:

Carpal Tunnel Syndrome, Tennis Elbow, Frozen Shoulder, Cervical Spondylitis, and Ganglion.

*Source HSE MSD Statistics Great Britain 2017/18

Work-Related **MSDs** in Numbers

UK Statistics

469,000

469,000 new or longstanding cases of work-related MSDs in 2017/18.

The **Bigger** Picture

Work-related MSDs accounted for **35%** of all work-related illness in Great Britain 2017/18 compared to **41%** in 2015/16 representing a slight downward trend, possibly due to **increased awareness** of MSDs.

45-55+

Males aged between 45-54 and 55+ represented the highest rates of MSDs.

Working Days **Lost**

Work-related MSDs represented **24%** of all days lost due to work-related ill health in Great Britain in 2017/18 placing significant burdens on employers and employees.

It is estimated that some **6.6 million** working days were lost due to work-related MSDs, an average of **14 days lost** for each case. Upper limb disorders accounted for around 42%, with back disorders around 40% and lower limb disorders 18%.

200 Types

There are over 200 types of MSDs affecting 1 in 4 adults, according to the Chartered Society of Physiotherapists.

Those **Most at Risk**

Skilled trade occupations, and process/machines operatives had statistically high rates of work-related MSDs. Industries requiring physically active work including agriculture, construction, forestry and fishing, transportation, healthcare and social work demonstrate the highest rates of MSDs.

Small and large workplaces reported the highest figures over a 3 year period.

*Source HSE MSD Statistics Great Britain 2017/18

"There is strong evidence to show how having a healthy workforce can reduce sickness absence, lower staff turnover and boost productivity - this is good for employers, workers and the wider economy."

The Workplace Wellbeing Charter

Wellbeing in the **Workplace**

While organisations have a legal duty to comply with the **Health & Safety at Work Act**, this traditionally addresses measures to prevent accidents for physical safety.

There is today growing recognition about the importance of 'health and wellbeing'; this being the impact of the working environment on physical and mental health and wellbeing.

Organisations have been urged to take measures to enhance **positive wellbeing**, which not only include the workspace but also take into account work culture, such as people management, leadership etc. It is often described as the psychosocial environment. This helps to address the problem of stress, anxiety and depression, which is often made worse, or even caused by work.

The impact of poor-employee **mental health** is significant (and prevalent) within many organisations. Creating and investing in a comfortable working environment is a positive step in supporting wellbeing in the workplace. In doing so, it helps to create greater **employee engagement** and motivation.

It can therefore be presumed that a healthier and happier workforce (with less absenteeism) is going to be a more productive workforce. For many companies, increased productivity also leads to increased profitability.

'Presenteeism' is also a problem, both in terms of human suffering and lost productivity. This is when people come to work when they are unwell. According to an Absence Management Survey carried out in 2017 by the CIPD in association with Simply Health, 'presenteeism' was observed in the workplace by some **86%** of respondents, an increase of 14% from the previous survey.

The same survey also revealed that MSDs accounted for some of the **most common absences** alongside mental health and stress.

What are the **Consequences** of Workplace Fatigue?

Human Suffering

Pain and discomfort are debilitating and inevitably result in fatigue. Regular pain and fatigue can be physically and mentally stressful, and can lower the immune system. This can lead to other health issues and cause personal suffering, including depression and mental anxiety. When individuals become tired, there is a higher risk of **lapses in concentration** as cognitive performance is reduced. Reactions to events, such as potential **hazards in the workplace** can become slower.

Fatigue, therefore, can lead to other types of accidents in the workplace, and in the most serious of situations, even **fatalities**. That is why taking measures to alleviate the onset of tiredness and fatigue is critical to general health and safety in the workplace and accident prevention.

The problem is considerable on a global level. Over **45% of European workers complain of standing in tiring positions** at work. Some **22.5%** of European workers also complain of 'fatigue' in broad terms.

Occupations Most at Risk of MSDs

Certain occupations requiring more physically active work, such as manual handling, standing and turning, have statistically higher rates of reported MSDs. Therefore, those working in construction, agriculture, forestry, fishing, industrial/ manufacturing, transportation, healthcare, retail and skilled trades in general are at **greater risk**.

This does **not** mean to say that other, more sedentary occupations where employees are required to sit for most of the working day, are free from MSD risks.

Reducing the Risks

Reducing the risks may involve a change of workplace culture. Effective leadership to increase health, safety and wellbeing awareness is essential.

This may require modifying the workplace design (seeking **ergonomic advice**) and reviewing work rotas so that tasks are alternated, allowing individuals to change postural position on a regular basis by introducing a **Sit/Stand Policy**.

Understanding the demographics of the workforce can be helpful in taking preventive measures as certain age groups in specific professions can be at greater risk.

Many people feel happier and healthier as a result of **alternating between sitting and standing**. This can lead to less absenteeism, improved workplace morale and employee retention, as well as improved productivity and business performance.

Over 45% of European workers complain of standing in tiring positions at work.

Lost Productivity

Sickness absence due to illness or injury is costly to enterprise and our society as a whole. It is estimated that workplace absence is costing the UK economy some **£18 billion** in lost productivity, predicted to rise to **£26 billion** by 2030 according to the Centre of Economic & Business Research as part of analysis commissioned by FirstCare in 2017.

The study found that mental health issues had increased dramatically, with those in the **30-40 year old** age group being most affected.

MSD related absenteeism was found to be most prevalent with **50-60 year olds**.

In 2017, the total number of working days lost to MSDs in the UK was **6.6 million**, an average of 14 days per case according to the HSE.

Taking measures to help keep employees healthy and happy is now widely recognised as being good for an organisation's competitiveness and productivity levels, and therefore beneficial for economic growth in general.

30-40

Most affected by mental health issues at work.

50-60

Most affected by MSDs at work.

£18Bn

2017

£26Bn

2030

"Over half (**54%**) think that sitting in the same position for long periods of time has the most **negative impact** on their back health. Despite recognising the source of pain, almost **one in 10 (8%)** of those who spend the day mainly in **one position** don't take regular breaks,"

British Chiropractic Association Survey

A Study of **Anti-Fatigue** Mats at Land Rover

A study commissioned by **COBA Europe** and conducted by Professor Mark Porter and Dr Samantha Porter from the Design Ergonomics Group at Loughborough University compared standing on concrete with standing on anti-fatigue floor matting with the help of employees at **Land Rover**.

26 Land Rover employees took part in study over a seven week period, using four different types of **anti-fatigue mats** supplied by COBA Europe, and standing on concrete, described as the '**No Mat**' (control) condition.

Discomfort data was collected from 30 body areas using a body discomfort diagram. Discomfort was assessed as either 'slight', 'moderate' or 'considerable', and this information was taken at the start of the day, just before the lunch break and at the end of the day. It also compared the type of mat preference.

Significant statistical differences between the conditions were only identified in the feet, calves and lower back. The provision of **matting was found to reduce either the number of reports or the severity of discomfort** in the feet and calves during the day.

Reports of discomfort of the feet and calves were appreciably higher in the weeks when the matting was not fitted (**No Mat conditions**). Reports of '**considerable discomfort**' were 5.2 times greater when matting was not used.

Reports of 'considerable discomfort' were 5.2 times greater when matting was not used.

Standing at Work Survey 2018

COBA Europe recently carried out market research into the effects of standing in the workplace for the specific purpose of this publication.

The study involving Health and Safety Managers, Warehouse Managers, Production and Operations Managers was carried out to provide evidence and findings from real work conditions about the issue of '**standing at work**' in the UK.

It was compiled to gain a greater understanding of related health problems from **prolonged standing** in a variety of working environments, and respondents represented both large multi-national organisations and smaller privately owned companies. Those participating in the survey were also asked to indicate what measures had been taken/ or are being taken to address the problem of prolonged standing, should it be applicable to their workplace.

Standing Related **Illness & Absence**

69% of respondents had colleagues who had experienced back, leg or foot pain as a result of standing at work, of which **8%** also confirmed they knew of staff with other health problems, and a further **34%** had received complaints about serious health issues that had resulted from their staff standing at work.

When asked to rate the seriousness of the problem of standing within their own company, four respondents considered the issue to be '**highly serious**' while a further **39%** cited it as being '**serious**'.

Some **45%** identified people taking sick leave as a direct result from standing at work. **65%** considered sick leave to have an impact on the productivity within their organisation.

Standing **Solutions**

Nearly two thirds of respondents said they had a policy on **standing at work**. Actions taken to overcome discomfort from standing commonly included the provision of **anti-fatigue matting**, regular breaks and the rotation of activities.

73% of respondents who had invested in measures to alleviate the problem of standing at work, considered they had obtained a good return on their investment.

Anti-Fatigue Matting

Of those who had invested in **anti-fatigue matting** as a solution, **68%** found anti-fatigue matting to have had a positive effect on the well-being of staff; **86%** found anti-fatigue matting had helped to **reduce pain** or serious health complaints of staff; and **82%** considered anti-fatigue matting to have a positive effect on **increasing productivity** in their company.

Some 55% confirmed that absenteeism had been reduced as a result of anti-fatigue floor matting.

86% found anti-fatigue matting had helped to reduce pain or serious health complaints of staff; and 82% considered anti-fatigue matting to have a positive effect on increasing productivity in their company.

In a survey carried out by COBA Europe in 2018, 68% of respondents considered anti-fatigue matting to have a positive effect on the wellbeing of staff.

About **Anti-Fatigue** Matting

How do **anti-fatigue mats** work?

Anti-fatigue mats encourage regular foot movement (even in static positions). The feet subtly adapt to the mat's cushioned surface, **promoting healthier circulation**. This movement, although very subtle, forces the foot and calf muscles to expand and contract, which activates the **Venous Pump**, pushing blood back up to the heart against the force of gravity.

This naturally occurs when we walk. An anti-fatigue mat helps to replicate this action even when users are standing in static positions.

Who **uses** them?

Anyone who is standing for prolonged periods of time such as those working in:

- **Factories** (production lines)
- **Warehouses** (packing stations)
- **Retail** (tills - payment points / information desks)
- **Hospitality** (behind bars and reception desks)
- **Offices** (standing desks)

Choosing the **right** anti-fatigue mat

With so many options available, it is important to make the right choice when it comes to anti-fatigue matting.

An effective anti-fatigue mat should provide the perfect balance in terms of **foot support**, not being too hard or too soft. During the selection process, ensure that the anti-fatigue mat is suited to your specific **working environment**, for example dry/oily/chemical-prone and evaluate how much wear and tear the matting will be subjected to.

Some products are designed for heavy-duty industrial use, while others are more suited to less punishing environments, such as retail or hospitality. Always ask the distributor or manufacturer for assistance if you are unsure, or download COBA Europe's '**Mats in Mind**' App which features a handy product selector.

Thanks for Reading.

Download Mats in Mind Free Today

Download on the App Store

GET IT ON Google Play

Credits & Sources

HSE Work-Related Musculoskeletal Disorders (WRMSDS) in Great Britain, October 2018

The College of Podiatry (Expert Opinion) 2019

5th European Survey on Working Conditions

European Agency for Safety and Health at Work

British Chiropractic Association Survey

CIPD Absence Management Survey 2017 in association with Simply Health

(Ergonomics Dept) Loughborough University

The Chartered Society of Physiotherapists

Change at Work: How Absence, Attitudes and Demographics are impacting UK employers commissioned by FirstCare in conjunction with the Centre of Economic and Business Research

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