Mousetrapper<sup>®</sup>

# Computer-related RSI – a public health problem!

A study of the Swedish people's experiences of working at a computer.



# 57% of people working at a computer have experienced pain.

# How long should we put up with that?

When we look at how computer work affects the Swedish people, one thing is clear: There are a lot of things that could be better, and a lot of pain that could be avoided.

In collaboration with Kantar we conducted a study to examine what proportion of Sweden's working population have experienced arm, shoulder or neck pain from working at computers – often called mouse arm. This is the third time we have repeated the study and, unfortunately, far too little has happened.

If you would like to study the data on which this report is based, please email info@mousetrapper.com



We conducted the first study in 2018 and the second in 2021, in the middle of the pandemic. At that time, a very large proportion worked from home (46%) and now we can see that the levels of having experienced pain at a computer are back at the 2018 level (57%, 62% in 2021). This means that while the number of individuals experiencing pain has fallen from 2021, it is still, in our opinion, too high a figure. When more than half of all computer workers have ever experienced pain at some point, alarm bells should be ringing. What can we do to avoid so much pain, for which there actually to a large extent is both knowledge and solutions?

We are a part of this, and we are passionate about ensuring that more people do not have to suffer. Or as we say in our motto: Fight the Pain.

### WHAT IS MOUSE ARM AND WHY IS IT A PROBLEM?

Mouse arm – or repetitive strain injury, RSI, as it is actually called – is a collective name for multiple conditions that arise when one works for long periods with the arms and hands in static positions. This can lead to overexertion of the muscles in the neck, shoulder, arm or hand. A correct working position increases the likelihood of avoiding, or alleviating, repetitive strain injuries/RSIs – which otherwise risk becoming chronic.

### **EVERYONE SHOULD WORK IN A CENTRED POSITION**

By working in a centred position, with your hands within the width of your shoulders, you can achieve a relaxed working posture and avoid the problems that may arise when working with a traditional mouse as you no longer need to reach for the mouse on your desk.

If you do not treat your RSI, but only grin and bear it, you risk developing a lifelong chronic injury. Much can be gained by taking timely action and tackling the problem, both from an individual perspective and from a purely socio-economic perspective. Many people have to take sick leave time and again and undergo rehabilitation in order to be able to return to work. which, in most cases, could have been avoided with more knowledge and better aids.

# The majority of people

# working at a computer have experienced pain.

The Sweden of 2023 should have a plan for how to reduce this.

Approximately half of the Swedish population (about 5 million people) work<sup>1</sup>. Extrapolating from the results of our study, roughly 60% of these individuals (3 million people) work in front of computers.

90% of them (2.7 million people) spend more than two hours per day in front of a computer screen!

57% of these individuals reported having experienced pain when working at a computer. This means that 1.5 million Swedes have experienced pain when using a computer.

It is interesting to note that the EU body the European Agency for Safety and Health at Work, which continuously examines work-related risks, also has studies showing that RSI (Repetitive Strain Injury) and computer work are considered to entail the greatest physical risk factors at work, see graph.

# Proportion of employees who report being exposed to different physical risk factors at work at least one quarter of the time<sup>2</sup>, EU-28, 2005, 2010 and 2015



Note: The data applies to workers who work at least 12 hours a week.

Source: Panteia based on the fourth (2005), fifth (2010) and sixth (2015) waves of the European Working Conditions Survey (EWCS)

# Comments

Our study investigated workplace practices and the number of hours people spend working at computers. However, if you add up all the time we actually spend using different devices – including tablets, smartphones and computers – most people probably spend several additional hours per day in front of a screen.

And there is less difference than you might think between different age groups. Of the youngest,

18-29 years old, 94% work at a computer every day for more than 2 hours. The age group 30-49 years old is the same, 94%, and the oldest group, 50-64 years old, is 88%. The difference is not huge. The biggest difference is that the oldest group probably did not spend time at a computer in their twenties.



# 40% have sought help for their problems.

# How do we get more people to seek help?

The study shows that about 60% work more than 2 hours a day at a computer, which is equivalent to about 3,000,000 people, and 57% of them say that they have experienced pain during computer work, which corresponds to about 1,540,000 people. Of those, 39% have sought help for their problems. This is good, but just over 60% have not sought help. Clearly not everyone needs help, but we believe that many more people would both need and be able to get help. A lot is about information about what can be done, both for the individual and with the employer.

# Comments

Ergonomic chairs, sit-stand desks, ergonomic mice and keyboards, variation in working position and relaxing exercises – the list of what can be done to avoid unnecessary pain is long.

What would perhaps have the greatest impact would be if the Swedish Work Environment Authority could be tasked with investigating how this affects public health, and then hopefully make it easier to get mouse arm (RSI), for example, classified as an occupational injury. In the 1980s, a campaign focusing on ergonomics was initiated which led to employees' rights to computer glasses. Now it is time to take the next step and establish the right to help prevent RSI injuries. We believe that with legislation and regulations to support the general rights to an ergonomic workplace, we would have saved society a great deal of money.

# More women than men are affected.

What is the reason for this?

There is a distinct difference in how men and women are affected by pain when working at a computer. Two thirds of women working at a computer, 66%, have felt pain in their arm, shoulder or neck. In men, it is just under half at 47%.

One theory as to why women are more susceptible than men is that women generally have more monotonous work tasks<sup>3</sup>. Women are also more susceptible to stress-related problems such as muscle tension, which increase the risk of computer-related injuries. Is there any further explanation as to why and how can we reduce that figure?



# Comments

We know too little about why women are more likely to experience pain when working at a computer. There can be a number of explanations, which is why we believe it is time to carry out a larger study of women's experiences in connection with computer work, in order to be able to understand what can be done to improve women's conditions and needs. This basic knowledge is likely to require further research afterwards.

# Half a million young people have experienced pain when using a computer.

# How do we improve the conditions for young people?

When you're young, you're invincible and it's easy to ignore warning signs. Of the approximately 1,250,000 young people (18-29 years old) who work, 40% have experienced pain in their arm, shoulder or neck. This means that half a million young people are at risk of developing symptoms that may eventually become permanent.

Throughout their lives, young people have had constant access to computers, tablets and smart phones; from a young age they already have a high accumulation of screen time. Once they enter the workplace and are expected to perform, young people spend a large proportion of their waking hours in front of computers, both at work and in private, further exacerbating the problems.

We need to do something to reduce the risk of long-term sick leave.

# Comments

We want to see schools create awareness of the risks involved in working in a poor posture from an early age within the framework of Sports & Health. Much ground will be gained if we can slow the current trend. We also want an information drive aimed at young people to make them aware of the problem and how they can avoid it.







# Men also need help.

One third have realised that help is available.

Almost half of all men who work at a computer have at some point experienced pain in their arm, shoulder or neck (47%). Of these, a third have sought help for their pain, with almost 10% more women seeking help. About half (46%) of men who have sought help for pain state that they have become symptom-free after treatment. This is actually about 10% more than women (37%) who state this.

# Comments

One might wonder why men state they have become symptom-free after treatment to a greater extent than women. Is it because treatments are more tailored to men? There may of course be many explanations, and the study we have previously requested (the heading 'More women are affected') to better understand why more women experience pain in their arm, shoulder or neck may also be able to clarify this.

# Only 27% have tried technical solutions. But 88% state that they have helped!

How do we get more people to try technical solutions?





We are passionate about developing technical aids that make a difference. That's why we're partly speaking for ourselves, but that's also why we exist – as we say Fight the Pain.

That is why it is both gratifying and disappointing when we ask if you have tried technical aids such as a sit-stand desk, a new mouse, a new chair, a new keyboard or something else. Disappointing, because only about a quarter of those who felt pain in their arm, shoulder or neck during computer work have tried technical aids.

But what is gratifying is that of those who have tried it, almost 9 out of 10 (88%) say that it helped!

### Comments

We think 9 out of 10 are fantastic figures – while at the same time we need to make more people realise that it is possible to avoid the risk of permanent pain by using ergonomically designed technical solutions, as well as varying their work to avoid long static sessions – and to take regular breaks off with simple exercises that help muscles to relax. If we can achieve a change in regulations and recommendations for both computer workers and employers, society would probably save a great deal of money. We see investigating how this can affect public health as an important first step.

# Summary

We spend a large part of our working hours in front of a computer, and when more than half of those who work at a computer report that they have felt pain, this is something that can be described as a public health problem.

Meanwhile, there is a general lack of awareness about how computer work affects health and how to avoid negative consequences such as

arm, shoulder and neck pain. In-depth knowledge through research is needed and working on how to inform and offer preventive measures, technical solutions and treatments, as well as investigating how people affected can be compensated.

We hope this study will provide insights that contribute to greater knowledge and understanding of how post-industrial workplaces can be optimised.





# Mousetrapper's mission – Fight the Pain<sup>™</sup>

More and more of us spend our working days sitting in front of a screen. We sit still for too long in static positions that our bodies are not designed for. Many of us suffer from pain in our arms, shoulder and neck.

At Mousetrapper, we have a mission: No one should suffer pain due to working in an awkward position with a mouse.

The first Mousetrapper was launched in 1994 by Swedish inventor Rolf Strömberg. The ingenious design of this ergonomic mouse improves productivity and naturally encourages a centred, ergonomic position where your elbow can be tucked beside your waist. This dramatically reduces the risk of arm, shoulder and neck pain.

The Mousetrapper's enormous success has made it the market leader in Scandinavia, and it is now being launched internationally. We now know, along with most ergonomics specialists and physiotherapists, that the strain of desk work can be avoided. This study shows that a combination of physical exercises, correct positioning and posture, and technical aids are crucial in preventing unnecessary pain when working at a computer.



# **Computer-related RSI? Three posture corrections can help.**

There are many things you can do to prevent pain when working at a computer. The basic thing to remember is that a static position is likely to result in problems sooner or later. Small, repetitive unilateral movements can cause adverse effects. A common early warning sign is muscle fatigue.

You can reap considerable benefits from three simple corrections. To find out more, visit www.mousetrapper.com for more advice and exercises.

A poor posture while using a computer heightens the risk of developing neck, shoulder or arm pain. By correcting your working posture, you can improve your chances of avoiding, or alleviating, repetitive strain injuries – so-called mouse arm/RSI.

Since it is impossible for us humans to work in a static position all day, we need to move. The key is to adopt a body position in which the joints are allowed to rest in their natural positions. Which reduces strain on the musculoskeletal system and lays the foundation for a healthy posture.

Here you will find some corrections and solutions for a better working environment. Ask a colleague or friend to take a look at your working posture and explore how it can be improved by making small changes that reduce the likelihood of chronic mouse arm/RSI.

### **CORRECTION #1**

# Keep your feet firmly on the floor

Adjust your chair so that your feet rest firmly on the floor. Your feet should be placed slightly in front of your knees. If necessary, use a footrest.





### **CORRECTION #2**

# Keep your forearms parallel with the floor

Relax your shoulders and keep your elbows at a 90° angle. If you change position, try to stay within a range of 70° to 135° – and alternate between sitting and standing while you work.







### **CORRECTION #3**

# Work in a centred position

To prevent repetitive strain injuries, it is essential to keep your hands in a centred position, inside the width of your shoulders. Having to stretch out your arm to reach the mouse next to the keyboard is a common pitfall. But by using an ergonomic mouse, such as a Mousetrapper, you can achieve an ergonomically sound position that keeps your arms and hands relaxed. Often within just a couple of weeks, a centred mouse provides appreciable improvement.



# More ergonomic tips!



### SCREEN

It is also important to think about the placement of your screen. Your eyes are more comfortable when looking down. Place the upper edge of the screen at, or just below, eye level.



### LAPTOP STAND

If you work on a laptop, consider a laptop/tablet stand and a separate keyboard to achieve a correct, comfortable height.





By working while standing, we burn almost twice as many calories as when we sit. A mat prevents your feet getting tired, which means you can stand for longer periods.



### ARMREST

An armrest is another aid that supports a naturally centred and relaxed position.



# 5 exercises that counteract pain in your neck, shoulder and arm.

Here are some tips for exercises that you can easily do at your desk. The most important thing is not what you do, but activating the body and the large muscle groups to increase blood circulation.

### **SQUATS**

Stand up and hold your arms straight out in front of you. Lean slightly forward and do 5-10 squats, as deep as possible without losing balance. If you find it difficult, you can gently hold on to the desk.

### **GENTLE PUSH-UPS**

Place your hands on the edge of the desk and do 5-15 push-ups.

### **CALF RAISES**

Stand with your feet shoulder-width apart. Stand on your toes, preferably as high as possible. Try to do 5-10 calf raises.

### **NECK EXERCISE**

An exercise you can do while sitting. Clasp your hands behind your neck, gently push your head back and push your chest forward, bend your back and stretch. Then round your back and press your chin to your chest. With your hands behind your neck, turn your shoulders to the side and really stretch. Repeat both exercises a couple of times.

### SHOULDERS AND ARMS

Sit down and reach your arms up straight. Slowly move your hands backwards. Repeat a couple of times. Lower your arms to the side, still stretched out so that your elbows are in line with your ears. Push your arms back, when you find the position, bend your hands back as well. See how long you can keep the position.



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