

# ERGONOMICS

## THE ESSENTIALS

### SENSORY

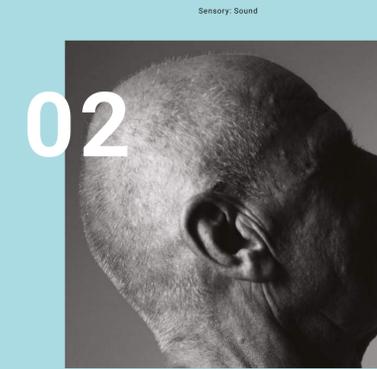


#### 1. COLOUR

We've evolved to respond to sensory stimulation and these experiences affect our wellbeing and productivity. A workspace should reduce harmful sensory stimulation and increase uplifting sensory experiences to enhance wellbeing and productivity. Sounds, for example, can give us energy but noise can also cause headaches and concentration problems, which can lead to neck and shoulder pain. Reducing noise can be good for productivity as it lowers stress and sickness and helps employees work at their full capacity. Lighting and air quality are also important considerations - bad ventilation can lower productivity by up to 15%.

Colours influence our mood and feelings. For some people colours can even affect their perception of room temperature. Colours initiate an emotional response because they transmit wavelengths that trigger hormone changes in our bodies. Choosing the right colours for your workspace can have a big impact on worker wellbeing and productivity. Grey, beige or white workplaces have been linked with depression but brighter colours can raise motivation. The best work environments combine colours effectively. How people perceive colours depends on their culture and experiences, but generally, green is good for productivity, blue for creativity, red for attention and yellow for decision-making.

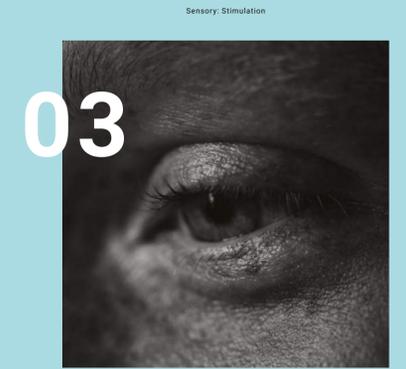
- Combine colors to boost behaviors and feelings necessary for productive work
- Use colours to identify different work areas within your workspace
- Lighter colours have the added benefit of reflecting natural daylight



#### 2. SOUND

Noise is a normal part of work, but excessive noise levels have been identified as a major problem for productivity. Noise affects our concentration, stress levels and our capacity for creative thinking. Disruptions and distractions cause frustration and wellbeing and productivity suffers. Screens and acoustic tiles can help to reduce noise levels and provide workers with quiet spaces within busy areas. Noisy furniture is often a major source of distractions - look for designs that are light and quiet to move. In some situations, relaxing sounds or music can boost productivity, so think as well about the positive potential for sound in your workspace.

- Screens and acoustic panels can provide textual stimulation and reduce noise levels
- Provide plenty of different sized meeting rooms and encourage workers to use them
- Keep social areas like kitchens and coffee bars away from main work areas



#### 3. STIMULATION

One of the reasons we enjoy nature and a good view, is that we crave sensory stimulation. Sensory stimulation can also positively affect focus and our ability to stay alert. If our work environment doesn't stimulate our mind and senses, we lose motivation and focus. Rows of workstations, all in similar colours, set to the same height and with no individual features or the flat drone of air conditioning and computers fans isn't typically the type of varied environment that stimulates productivity. Music, lighting, tone and texture variations provide pleasant stimulation necessary for productive work.

- Select products with sensory experience in mind - touch, colour, sound and scent
- Introduce textures - natural fibres, wood wool tiles and plants
- Use colour, artwork, and graphic patterns to create internal views and tonal change



#### 7. SIT-STAND DESKS

We spend a lot of our lives sitting - on our commute to work, during lunch and business meetings, watching TV at night and many of us also sit while we work! Sitting for long periods is not good for our bodies or our productivity. It affects our posture and increases the risk of illnesses such as heart disease and diabetes. Sit-stand desks allow workers to vary their working position, encouraging movement, which improves circulation and releases hormones and proteins that boost wellbeing. People come in different shapes and sizes but a sit-stand desk is a good example of a 'one size fits all' solution that can be customized to suit any worker's height or working preferences.

Workers need tools to do their jobs and the way they use these tools shapes the work they do. To reduce stress and enhance performance, tools should be able to adapt to a wide range of needs. Products that hinder or slow down workers have a negative effect on morale and performance. Four out of five office workers want to have access to ergonomic furniture, e.g. sit-stand desks, which is important to consider, as sitting for extended periods of time increases the risk of disease. Exercise outside of work does not eliminate these health risks - it's how workers spend their time at work that is important for wellbeing and profitability. Research shows that standing for two and a half hours burns 350 calories per day and that standing instead of sitting leads to 10% more productivity.

- Provide training and ensure sit-stand desks are easy to operate to ensure workers use them regularly
- Start by standing for short periods so your body gets used to a new working position
- The more you sit, stand and move your body, the greater the benefits to your health



#### 06

#### 6. MOVEMENT

Our bodies have evolved to help us move. For thousands of years, movement has played an essential role in our evolution bringing with it a wide range of physical and mental health benefits. Movement increases blood circulation and the release of proteins and hormones that boost wellbeing and reduce tension. As office workers often work in sedentary sitting positions, encouraging movement brings numerous benefits for wellbeing and productivity. Movement creates energy - a buzz people feel the moment they enter your workspace. As technology continues to change the way we work, flexible workspaces have the added benefit of increased interactions and chance encounters that spark innovation!

- Sit-stand desks and FreeMotion chairs keep you moving while you work
- Set a timer and take regular active breaks with a colleague
- Activity Based Workstations encourage movement when workers change tasks



#### 05

#### 5. THE HUMAN BODY

Our bodies are complex systems that have evolved over thousands of years. This process has formed our eyes, bones, muscles and senses. To ensure we don't damage or overload any part of our body, a workplace should be designed to support our needs. Working places strain on our bodies, which is not necessarily a bad thing. When we work in active positions, lifting or moving for example, our bodies release proteins and hormones that benefit wellbeing. In static positions however, it's important the body has support to ensure muscles and tendons aren't overloaded. Repetitive tasks or awkward positions can quickly result in musculoskeletal injuries.

- Listen to your body - If you feel pain or tension stop what you're doing or change position
- Desks, chairs and monitors should be fully adjustable for every worker's optimal working position
- Our musculoskeletal system is designed for movement - sit, stand and move!



#### 04

#### 4. CONNECTIONS

Humans are social creatures and positive interactions increase our sense of wellbeing. The positive connections we create with co-workers are an important part of the cooperative spirit required for productive work. When we create positive connections, we enjoy coming to work and productivity increases! Workspaces are becoming increasingly more diverse, so it's important to create spaces where people with different backgrounds and work styles can co-exist. Functional coffee or kitchen areas are perfect for brief interactions and provide workers with a common space to relax and get to know each other. Meeting rooms, just off main spaces, are perfect for brainstorming and allow workers to book space for more formal meetings.

- Appointing a community manager to promote social events that bring people together
- Letting workers decide rules for common areas increases their sense of ownership
- Meeting rooms create a bookable space for gatherings and new business connections



### HUMAN

Designing a workspace around human needs is important because productive workers are a competitive resource. The way workers interact with co-workers, and their workspace, shapes the quality of work they do. When people work safely and they enjoy their work, they feel good and they're more productive! One-third of workers using computers have reported experiencing back and neck pain. Stress and workload contribute significantly to work-related health issues. An employee's sick leave costs approximately 2740 SEK per day but having an ergonomic workspace can significantly lower sick leave caused by a poor physical or psychosocial working environment.



#### 08

#### 8. CHAIRS

Standing all day is tiring. Sometimes we just need to sit down and take the weight off our feet! Chairs provide support and comfort to help us to relax, but sitting for long periods of time is not good for our health or productivity. Many office workers who spend their working day sitting complain about tension or pain in their shoulders or lower back. The reason is simple - our bodies weren't made for sitting for long periods. Modern office chairs, designed to encourage workers to move while sitting, can reduce muscle tension associated with deskwork. Active sitting postures are good for wellbeing and help to keep workers relaxed and alert!

- Workstation chairs should be fully adjustable to suit the needs of individual workers
- FreeMotion chairs encourage active sitting through small micro-movements
- Combine fabrics that provide comfort with air flow such as a mesh



#### 09

#### 9. LIGHTS

Workers need plenty of light in order to work. A good task light should provide the right amount of glare-free light and be easy to move, depending on the individual requirements of the worker. Many office workers today complain of Computer Vision Syndrome, which causes eyestrain and headaches. As computers and tablets are backlit, our eyes need more light to balance the contrast between the screen and the ambient light around our desks. Modern task lights combine quality light with individual control which allows workers to direct light away from their eyes and reflective surfaces to avoid glare.

- Lighting a desk from the side helps to avoid glare, reflections and shadows
- Adjust the brightness and colour temperature of computer screens to sync with natural daylight
- Take regular breaks when working with computers to rest your eyes

### ENVIRONMENT



#### 10

#### 10. DAYLIGHT

Daylight helps us regulate our circadian rhythms - the daily cycle of waking and sleeping. These natural rhythms are affected by signals from our environment, the most important of which is daylight. For optimal daytime productivity we need to get good quality sleep. Exposure to daylight turns the genes that control our internal clocks on and off. When workers are spending up to 90% of their working day indoors, windows, skylights and other natural light sources are important drivers of wellbeing and productivity. When we sleep well, we start a new day feeling alert and refreshed!

- Windows bring much needed daylight and views that change throughout the day
- Internal glass walls help to spread precious natural light within a space
- Organize your workspace around natural light sources and create open spaces around windows so natural light is spread efficiently

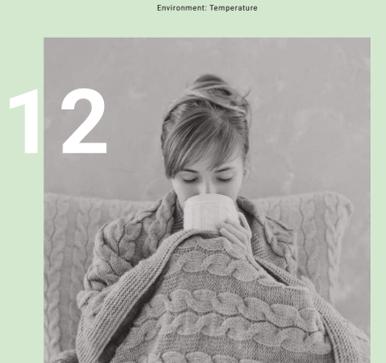


#### 11

#### 11. NATURE

Most people enjoy a walk in a park, a forest or by the sea. Nature does good things to the human brain - it makes us healthier, happier and provides plenty of sensory stimulation. Nature also helps alleviate stress symptoms and bringing natural elements into a workspace stimulates our minds and increases wellbeing. Open spaces with plants or trees, the sound of running water, wooden interior walls and a view outside are all effective ways to bring nature indoors. Encouraging workers to take their breaks outside can also help them reconnect with the world outside their window.

- Think about views - If you're in a city is there a view that catches the changing light?
- Consider views around shared spaces for maximal impact
- Encourage workers to take breaks outside and provide a map of short walks to boost energy



#### 12

#### 12. TEMPERATURE

The optimal ambient temperature for a workspace will depend on the type of work taking place. When we sit still, we tend to feel cold, as our bodies naturally produce heat when we move. The right combination of temperature, airflow and humidity creates the right conditions for work. Whenever workers complain about feeling too warm or too cold, there's a good chance that airflow and humidity are also part of the problem. 21.5c is a good temperature for office environments and each degree above or below can result in a decrease in performance.

- Allowing workers to modify temperature and airflow to increase comfort and productivity
- Consider underfloor air distribution (UFAD) and temperature zone controls
- Windows with blinds or shades allow for sunlight, airflow and temperature control