



The subject of health has been constantly growing in importance over recent years. People are becoming ever better informed and are taking charge of their own health. This often raises many questions. We spoke with occupational physician Dr. med. univ. Irmgard Reisinger on the subject of "Ergonomics in the workplace" and asked her some of these questions.

How important is ergonomics in the workplace and why?

Ergonomic workplace design is an important part of preventive occupational safety; on the one hand it promotes the efficient and, ideally, fault-free execution of tasks and on the other - and this is really the crucial part for consultation on ergonomics - it promotes the health and safety of workers. In workplaces that have been optimally designed on the basis of ergonomic principles, people are supported such that they can work comfortably, even for an extended period of time, without running the risk of developing functional or morphological disorders.

What should therefore be considered when designing a workplace?

It is much harder to restructure a workplace according to ergonomic principles because the people working there are experiencing issues such as muscle tension, pain in the locomotor system or supporting apparatus, tenosynovitis, headaches, rapid fatigue or dizziness, than to design an ergonomic workplace from scratch. When doing this, it is not only work processes that need to be considered, but also lighting and special conditions, and especially the varying physical requirements and individual needs each worker may have. It is a lot more effective to involve specialists and, if possible, those who will work in the workplace in question in future in the planning stage to pre-emptively confront potential complaints and problems. If some workers are already suffering from health problems, specially coordinated ergonomic adaptations can not only help to reduce symptoms, but in many cases also represent important components for an effective therapy.

What is the significance of the office swivel chair in everyday working life?

The relevance of ergonomic considerations when equipping an office workplace, especially

concerning the office swivel chair, cannot be emphasised enough. For many workers, office work requires hours of sitting in front of a computer. In this situation, the health problems resulting from poor sitting start to build up. In particular, it is the consistently rigid sitting position maintained over a long period which creates a high risk of contracting a number of health issues. Our locomotor system especially, which is adapted to deal with a wide variety of stresses, needs to be optimally supported during long periods of sitting to prevent tension, tiredness or infections as well as the resulting pain and functional restrictions.

What minimum level of equipment should an office swivel chair have to offer in order to be beneficial to your health?

It must be possible for the office swivel chair to be customised for the user in terms of the size and inclination of the seat, lumbar support, the height, resistance and adjustability of the backrest and armrests and, of course, the height of the chair in general. All these functions should be adjustable in as dynamic a way as possible.

The most ideally equipped, most appealing and most expensive office chair can still have an adverse effect on the user if it does not correspond with their individual needs or if it has been incorrectly set up. It is recommendable to take a good amount of time to select and adjust the chair and potentially to consult experts, as problems often do not arise until after a certain latency period, which is why incorrect sitting is usually spotted too late. Primary prevention is also the aim at this stage.

My experience of the S 4.0 sensor.

I have had the pleasure of testing the [Sensor S 4.0](#) sensor over the last few weeks and am truly impressed with it. The sensor, which is placed under the seat and calibrated to the user, precisely analyses your sitting habits. The program also provides general information on the subject of ergonomics in workplaces where you normally sit at a computer and regularly invites you to engage in exercises. These are very clearly explained and easy to follow and focus in particular on loosening up and strengthening the area around your neck and shoulders. The S 4.0 sensor continuously analyses my sitting habits and repeatedly points out when I'm sitting badly, providing detailed instructions on how to improve my sitting position. If I cannot interrupt the task I'm currently working on, the reminder disappears immediately and allows me to continue working in an incorrect position without bothering me. However, I have found that as soon as I see the "change sitting position" request pop up, I automatically change my posture. Needless to say, this is doing me a world of good and I am constantly learning how to better keep tabs on my own habits. At the end of a working day, I can check whether I have achieved my personal goal for changing sitting position, whether I used all areas of the chair in the best way and whether I managed to slot in enough exercise breaks. No one but me can view the records, which I also find quite important.

What surprised you most about using the sensor?

I thought that I was implementing my own theoretical knowledge of ergonomics and my practical experience as an occupational physician sufficiently to benefit me, but the sensor soon taught me otherwise: Lo and behold, I sit almost exclusively on the front right part of the seat and hardly ever change my sitting position voluntarily. This means my spine is almost constantly crooked and, even though I use an office swivel chair that is optimally adjusted to ergonomic sitting, my sensor program asked me the other week whether I had adjusted my backrest because I didn't lean back for hours and thus the sensor couldn't detect any dynamics. All this astonished me and I now have a

rather more critical attitude towards my habits. Meanwhile, the continual sensor analyses have already shown an improvement in my sitting habits: So I can be taught!

Would you say that this sensor helps the user be more health-conscious?

Yes, absolutely. I think what I said before also indicates that the sensor makes an enormous contribution to your awareness of your own health.

Would you recommend the S 4.0 sensor to others?

I highly recommend the [S 4.0 sensor](#) for being easy to follow and simple to use and for effectively promoting health. I also recommend it to companies that I advise on occupational health, as well as colleagues who are concerned with ergonomics in office workplaces. The significance of having the right sitting habits has become immense due to the sheer number of office workplaces; an analysis of sitting positions with the option of optimising one's own sitting habits, as is provided by the S 4.0 sensor, could improve the health of many.