

The Simple Deskology Guide

Seven small steps to a less stressful,
more productive office desk-life

By

NEC-Mitsubishi and Open Ergonomics



Deskology contents:

1. **Setting up** – paying more attention to the way you set up your desk today may determine your state of health tomorrow.
2. **Sitting pretty** - adjusting the way you sit will have a significant impact on the health of your back.
3. **Taking 'five' to stretch** – desk stretching will reduce injury from routine activities and will increase circulation which can make you feel better.
4. **Changing your scenery** – taking regular breaks away from your desk will improve your overall health and interaction with colleagues.
5. **Expressing yourself** - bringing some individuality to your desk will remind you of life outside work.
6. **Keeping your cool** - preventing dehydration and over-heating at work will give you more energy.
7. **Becoming clutter free** – taking five minutes a day to organise your desk will reduce stress and make you more productive.

The principles behind Deskology

A survey of 2000 adults commissioned by NEC-Mitsubishi in March 2004, shows that far from becoming a more mobile workforce, technology such as email and the Internet has meant that 67% of us are more tied to our desks today than we were two years ago. This extra desk-time coupled with more paper and clutter, poor desk set-up, bad eating habits and fewer breaks is exposing all of us to greater risk of long-term health problems and higher stress levels at work or 'Irritable Desk Syndrome' (IDS).

According to the survey IDS is being caused by a general apathy to changing our desk behaviour despite being forced to spend more time in front of our computer screens. Many respondents admitted that there are several work habits that they could easily change but currently choose to put up with on a daily basis – despite the fact that they could be doing themselves harm.

Independent studies by Nigel Robertson, Deskology specialist and senior consultant at Open Ergonomics, found that many of us are exposed to a series of hidden desk horrors on a daily basis – similar to those identified in the typical desk-set up pictured below. We risk our own health despite the fact we could make ourselves more comfortable and less stressed by making a number of small changes that take minutes to implement.



This Deskology Guide has been created by experts to help individuals to overcome their own form of Irritable Desk Syndrome. It is based on two essentials for less stressful, more productive desk management:

- Don't endure – act today
- Do it yourself – don't wait for someone else to fix it for you.

The steps within this guide take minutes to deploy and can be carried out by you. Don't put up with a desk life today that could impact your well-being tomorrow. Spend a few minutes learning the principles outlined in this guide and do your own deskology.

The Seven Deskology Steps

The Deskology Guide incorporates seven simple steps – summarised below - to a healthier, less stressful desk-life.

- Step 1 Sitting pretty - adjusting the way you sit to improve back posture.
- Step 2 Setting up – paying more attention to the way you set up your desk to reduce stress and health risks.
- Step 3 Taking 'five' to stretch – desk stretching to reduce injury from routine activities and to increase circulation.
- Step 4 Changing your scenery – taking regular breaks away from your desk to improve concentration, overall health and colleague interaction.
- Step 5 Expressing yourself - giving your desk individuality to remind you of life outside work.
- Step 6 Keeping your cool - preventing dehydration and over-heating at work to promote higher energy levels.
- Step 7 Being clutter free – organising your desk to reduce stress and increase productivity.

The guide provides tips on how to implement each Deskology step. To demonstrate how simple Deskology is, it also includes case studies that demonstrate how small changes to your desk set-up can make a significant difference to your well-being at work within a very short space of time.

DESKOLOGY STEP 1

Sitting pretty - adjusting the way you sit to improve back posture

BackCare, the national back pain association, believes the way we sit at our desk greatly contributes to the £5 billion a year in lost production and £512 million in NHS hospital costs for back pain alone. Not that surprising when 35% of the survey sample say they suffer from back or neck pain because they knowingly sit at their office desk in an awkward position.

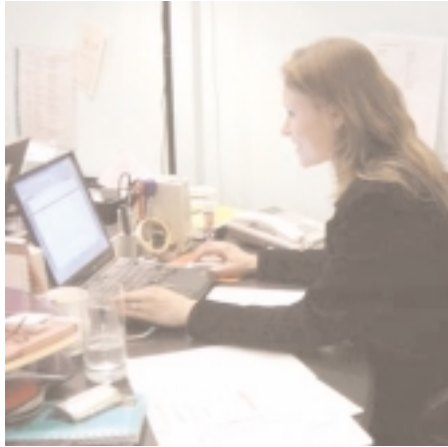
Adjusting the way you sit starts with your chair. The good news is that you may not need a new chair – removing fixed armrests, making a footrest and adding a suitable back support will transform many chairs.

Change the way you sit today and improve your posture by doing the following:

- Make sure that whenever you try a chair you make sure to try it at a desk. If you need a footrest, get that first if you can. You'll need the chair's height adjustment to set your elbow height to your desk, not your height from the floor.
- Sit fully back and upright in your chair. Adjust the height of your chair so that, when your elbows are vertically below your shoulders, they're at desk height. Many people have their chair too high.
- Make sure you can sit fully back against the backrest before your knees hook the front of the cushion. Some seat backs adjust forwards and backwards to adjust for this. If you can't sit right back with your pelvis fully upright, the cushion is too long and the chair is simply not suitable for you. Find another one with a shorter cushion.
- Adjust the back height to get the best support in the area between the shoulder blades and the back of the pelvis (not behind the pelvis), and feel if your spine is fully supported. If there isn't a nice even support, without gaps or uncomfortable pressure peaks, look for another chair, or use a suitable add-on back support such as BackShape.
- Roll your chair forward so that when you're typing or using the mouse, your elbows are vertically under your shoulders. If you have armrests that get in the way by hitting the desk, you can probably take them off with a hexagon key to undo the bolts underneath.
- Unless you're quite tall use a footrest, so that you don't feel pressure under the front of your thighs. It probably doesn't need to be angled, and may not need to be very high – a carpeted board is very suitable and you can adjust the height to suit your size. The footrest is the most difficult change to make, but don't neglect it, otherwise you'll find it hard to sit back in your chair.

Case Study – Fiona

Nigel Robertson, senior consultant at Open Ergonomics, uncovers hidden desk horrors and puts Deskology into practice within minutes at PR Consultant, Fiona's desk.



Fiona is a public relations consultant, making heavy use of her notebook computer to write documents, do research on the Web, and communicate by e-mail. Being in the information business, she has found herself using information technology more and more intensively.

Having been given an oversized chair, in which she could not sit fully back before her knees hooked the front of the cushion, Fiona has just been loaned a separate cushion to put behind her back. However the chair was set too high, making it seem more comfortable to perch at the front of it. When adjusted to bring her elbows down to desk height, the chair was still slightly too high off the floor, so even though she is slightly above average height Fiona needed a footrest. This is a common need, because standard desk height is still designed for paperwork not computing.

Her notebook computer had drawn her into a hunched-over posture with a bent back and neck, and since she could not have the keyboard close to her, she put papers in front of it. She was taking some of the strain with her elbows on the desk, but that interfered with her hand movements, and in time her elbows became uncomfortable too.

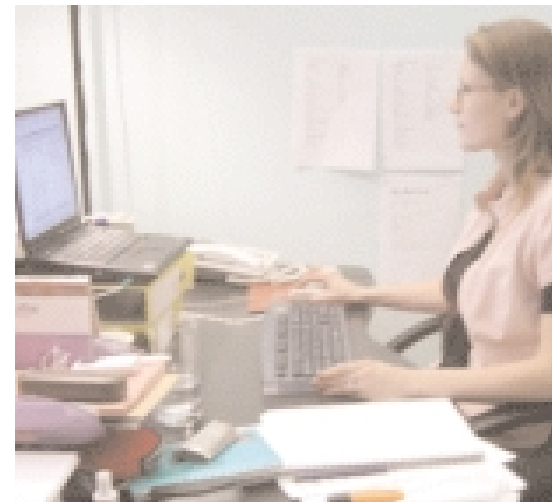
A lot of her work involves creating and editing documents, all with appropriate formatting and structure. This part of her job entailed a lot of mouse use to select text and make menu selections, which she was doing manually.

Fiona was starting to suffer from back and neck pains, and being three months pregnant she knew these were going to get a lot worse unless she could improve her desk set-up with some Deskology.

The first step was to lower her chair and sit right back, with the separate cushion positioned in the small of her back. Unusually, the fixed-height armrests were the correct height for her. A simple "plinth" style footrest is to be obtained to raise the floor under the desk by 25 mm.

Next she plugged a separate keyboard into her notebook, and raised her screen by six inches (a proper stand will also free up the desk space underneath). Fiona does not need the numeric keypad, so a narrow 84-key keyboard will be specified to allow her mouse arm to stay closer to her body, reducing the effort required from that shoulder muscle. With the keyboard close to her and her elbows under her shoulders, her back supported and head erect, Fiona's back, neck and shoulders will be in good shape to cope with Baby!

For even more reduction in physical stress and a gain in productivity, Fiona is investing some time finding out about Styles and Templates in her word-processor. These will give her quick-key and even automatic formatting of her documents, so she does not have to make the changes manually every time. She will not have to use the mouse so often or for so long, letting the computer do the work so her arms and shoulders don't have to.



DESKOLOGY STEP 2

Setting up – paying more attention to the way you set up your desk to reduce stress and health risks

The height, angle and visibility of your PC monitor can have a major impact on the future health of your back, neck, wrists and eyes. What should be the altar of the desk however is often overlooked. 35% of the research sample admitted that it would be fairly easy to move their computer equipment into a place that enables them to sit more comfortably.

Setting up your workstation is simple, but not obvious. Getting it right will protect you from future pain and discomfort.

Change your set up today by doing the following:

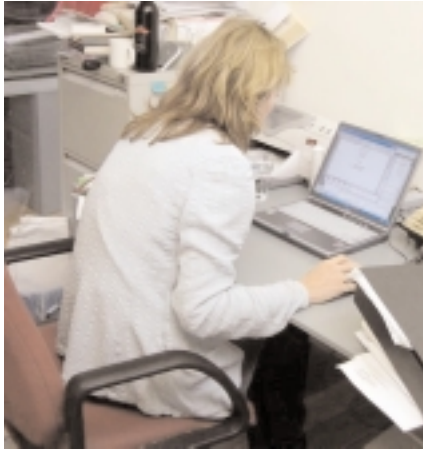
- Adjust the height of your monitor so that you are looking horizontally, not down at it - generally this means having the top of the visible area at eye height, when you are sitting upright. Most people have their monitor too low.

Check the distance of your monitor - for most people to view the screen comfortably it should be 55 - 65 cm away, so that your eye focus muscles do not have to work too hard. If you are sitting much closer than this, consider if there is a problem with your eyesight, the screen quality or settings, or the desk depth. Usable desk depth can often be increased by pulling the desk away from the wall and allowing the monitor to overhang at the back.

- Check the side-to-side position of your monitor - it should be directly in front of you. Don't put the monitor in the corner - either it will be hard to get close enough to the keyboard, or you will be twisted and your back and neck may develop problems.
- Eliminate any glare or reflections on your monitor - try closing blinds and changing the position of the workstation so that the monitor is at right-angles to the window. Turn off overhead lights unless you really need them, using a tall desk lamp for reading. You can reduce reflections from overhead lights by raising your monitor then tilting it down to make the screen vertical.
- Plug in a separate keyboard and mouse if you're using a notebook computer to get the screen in the right position.
- Move any papers from in front of the keyboard and pull it near the edge of the desk. Move the mouse too. Fold away the rear feet on the keyboard unless you're sure you really need them.
- If you use paperwork while typing, arrange a document holder either to one side of the screen or angled in front of and below the screen, between it and the keyboard. Resist the temptation to put things between you and the keyboard.

Case Study – Tricia

Nigel Robertson, senior consultant at Open Ergonomics, uncovers hidden desk horrors and puts Deskology into practice within minutes at TV Producer, Tricia's desk.



Tricia is a London based television producer. She spends her working day at her desk, reading paper proposals, making phone calls, and using a notebook computer for e-mail and invoicing. Plagued by over 200 spam e-mails a day, Tricia tends to interrupt her other activities to delete them as they come in, every few minutes.

Her modern notebook has a fairly small screen with a high resolution, and Tricia is short-sighted, so she leans forward to view the small characters on the screen.

Because the computer is directly on the desk the screen is low, pulling her down into a hunched-over shape, and with this and her tendency to set her chair a bit too high, she sits half way forward on the chair, with no back support.

This position puts a constant strain on her spine, with her back muscles and tendons working to keep her upright and the discs in her spine squashed into a wedge shape – she can't feel anything because the discs have no pain sensors, but they are under high pressure and being starved of nutrition. Eventually she may suffer a "slipped" disc or muscle spasm because of this hidden damage.

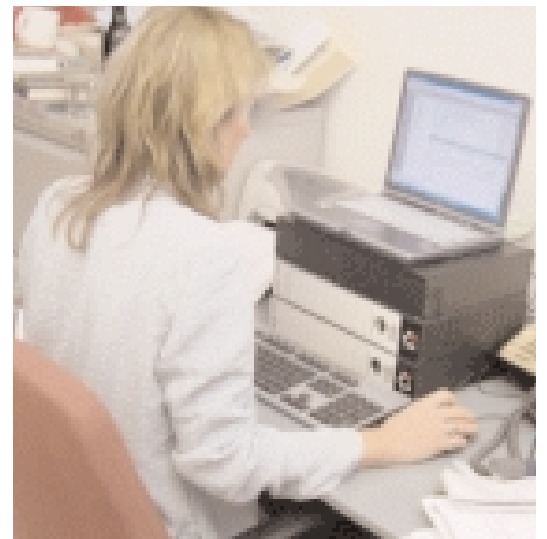
For part of the time Tricia uses her elbows to take some of the strain, but that impedes her typing, and on the hard desk it is another source of discomfort.

Fortunately, there are some simple remedies. A change of e-mail address and installation of anti-spam software is going to take care of the spam e-mails, allowing her to concentrate for longer periods without the nagging worries about e-mail viruses.

By slightly lowering her chair, Tricia can now sit fully back in it without feeling uncomfortable pressure under the front of the thighs, and plugging in a separate keyboard means she can put the computer on a stand to raise the top of the screen to eye height.

To her amazement, Tricia found she had to raise her screen by a full nine inches in order to sit upright! With a "bridge" style stand she will be able to bring it closer to suit her eyesight, removing the tendency to lean forward to see clearly. Also she will be able to use the desk space underneath.

Although to completely finish off the transformation she still needs to find a chair with more lumbar support and short height-adjustable armrests, Tricia has made a huge improvement to her well-being with some simple and inexpensive changes. For the future, Tricia is also going to consider adding a large flat panel monitor to her desk, which she can plug into her notebook computer. This will allow her to position the monitor further away, and to read more proposals on-screen instead of printing everything out.



DESKOLOGY STEP 3

Taking 'five' to stretch – desk stretching to reduce injury from routine activities and increase circulation

Routine activities like typing or using the phone can lead to injury over a period of time, and stretching can help relax your muscles, as well as strengthen them to help prevent future injury. Stretching also increases circulation, which may help you feel better while you work. A few stretches during your working day will help in keeping you free from hand, wrist, arm and back pain which can develop into life-long suffering.

Start desk-stretching today by doing the following:

- Extend your fingers until you feel tension in the stretch. Hold for ten seconds, then bend your fingers at the knuckles (do not clench your fist). Hold this position for ten seconds, then release. Repeat once.
- Raise an elbow to the top of your head, forearm dangling behind your head. Grab the elbow with the other hand and pull down toward the back of the neck. Repeat on the other side.
- Clasp your hands behind your head. Sitting upright, stretch your elbows backward and hold the stretch.

Sit upright in your chair, clasp your hands behind your chair back. Straighten your arms as much as possible and raise your hands toward the ceiling.

Roll your shoulders forward, up, back, then down, making the largest circles possible. Repeat in the other direction.



Open Ergonomics - how you should be sitting at your desk

DESKOLOGY STEP 4

Changing your scenery – taking regular breaks away from your desk to improve concentration, overall health and colleague interaction

Over 50% of the survey sample said it would be easy to take more regular breaks away from the desk for lunch and to walk round the office to speak to a colleague rather than sending them an email. Regulations established in 1993 (updated in 2002) from the Health and Safety Executive state the need for regular breaks during the working day. However, the guidance summarises that frequent breaks are better than longer, less frequent ones.

Change your scenery more frequently at work today by doing the following:

- Go and talk to a colleague rather than sending an email or calling them – even two minutes away from your desk provides physical exercise as well as a break from your desk environment.
- If you need time to 'think' – try to get away from your desk. You are likely to be more productive in thinking through a work problem away from the distractions of your telephone, computer and email.
- A recent study by University of Arizona microbiologist Dr Charles Gerba, states that the average desk is 400 times more contaminated than a lavatory seat. Experts believe that the tendency for workers to eat lunch at their desk is the reason for the massive rise in office germs. Eating lunch away from your desk will help to avoid these germs, encourage more exercise and give you a break from your computer screen.

DESKOLOGY STEP 5

Expressing yourself - giving your desk individuality to remind you of life outside work

University of London Sociologist, Laurie Taylor, believes that the professional work environment can suppress our individualism. He believes that people are happier and more productive at work when they are 'allowed' to express themselves.

Make your desk 'your own' by adding an individual touch. Nothing outrageous or offensive but objects, photos, little jokes that express who you are and remind you that there is life outside work!

DESKOLOGY STEP 6

Keeping your cool - preventing dehydration and over-heating at work to promote higher energy levels

If your body rises above 37°C at work you will find it harder to concentrate but it doesn't have to get that hot for there to be a lapse in productivity. Despite years of negotiation over a maximum working temperature, one has never been set. However, the Health and Safety Executive is investigating this issue after 2003's extremely hot summer and looking into providing maximum temperature guidelines in a variety of work situations.

In the meantime, other bodies such as the Trade Union Congress (TUC) have recommended a maximum working temperature of 30°C. Employers are required to undertake risk assessments and thermal comfort has to be assessed – so your employer should have a strategy to provide adequate ventilation and respite against the heat.

Minimise heat stress today in conjunction with your employer by doing the following:

- Take regular breaks in a cooler environment – even if it is a corridor. The timings of these would have to be agreed with your employer but they have a legal obligation to provide 'rest periods'.
- Ensure you are drinking enough water – according to the Food Standards Agency, the normal daily fluid recommendation is 6-8 glasses of water a day but in hot weather, this should be 10-12. Again, your employer has a legal obligation to ensure that you have regular access to water supplies.
- If you begin to feel ill in an extremely hot office, let your employer know – they have to ensure that you are fit and well to work in the heat.

DESKOLOGY STEP 7

Being clutter free – organising your desk to reduce stress and increase productivity

40% of the survey sample state that they suffer from stress and poor productivity due to too much clutter and paper. It is so easy to find yourself surrounded by paper, drinks, and food especially when your work pace accelerates.

Start to avoid clutter today by doing the following:

- Take five minutes at the start of each day to consider your work objectives. Ensure that you have, within easy reach, all the information necessary to do your work. If possible, clear your main work area to give yourself as much free space as you can.
- Take time to stop and walk away for five minutes if you are having trouble finding relevant work information or are feeling pressured by the amount of paper on your desk. When you return take two minutes to clear some space – it will immediately reduce your stress.

Learn more about Deskology

That's it! You should now be able to work more comfortably with minimum risk of RSI-type injuries. Cement the improvement with regular breaks, stretches and exercise. But we're all different, and you may still be susceptible. If you experience persistent discomfort, whatever you do, don't do nothing! Experiment with your set-up and consult your health and safety advisor. Don't wait for someone else to fix it for you, spend a few minutes learning the principles and do your own deskology.

For further information about Irritable Desk Syndrome and Deskology contact:

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