

Setting up your Computer Workstation

Section 1. Basic Chair and Desk Set up.

Achieving good posture in sitting can be achieved:

If your head is held at a comfortable angle. If you hold your head tilted downward or jutting forwards when reading the screen you are making your neck muscles work harder to balance your head on your spine and the blood supply will be reduced because of muscle tension. Symptoms may include:

- Headaches, they may vary from tightness at the back of the head to discomfort behind the eye
- A stiff neck and/or acute muscle tenderness across the shoulders. Use a finger to poke the muscles across the top of your opposite shoulder – are there any tender points? When you roll your shoulders do you get a ‘clunking sound’ somewhere deep behind or to the side of your shoulder blade? Do you suffer from tingling down one arm? If so then a poor head and shoulder position may be the cause.

If your shoulders are relaxed and upper arms held in a comfortable position close to the body. If you sit reclined back in a chair you then need to reach forward for the keyboard, mouse, touch screen or telephone. Subsequently you adopt a slouched posture in the chair. This not only flattens out the natural curves in the spine (not good for the ligaments, joints and discs) but causes the shoulders to roll forwards. Did you get that shoulder blade ‘clunk’ when you rolled them, or do you find it stiff and/or painful around the front of your shoulder joint when you try to scratch an itch between your shoulders? Do you get a slow ‘burn’ across the lower back – just above the pelvic bones? If so then the chances are you are sitting slouched too far back in your seat.

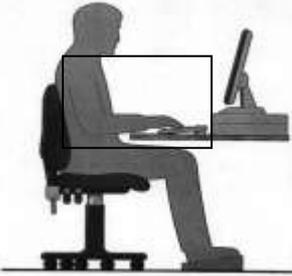
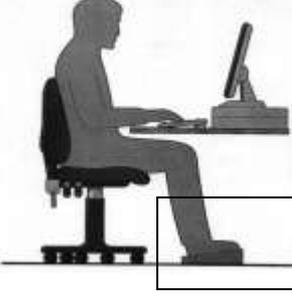
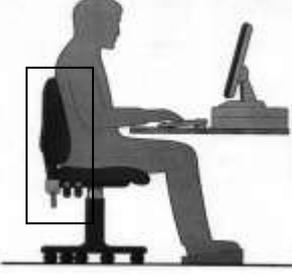
You want to sit with your forearms roughly level with the desk (see later section). If you sit with your chair too low you either hunch your shoulders –(if not sure then deliberately draw your shoulders downwards and see much more travel there is - if you get tightness in the side of your neck or tip of your shoulder this suggests muscle tension). The other way people overcome too low a seat height is to move their elbows away from their side. This is no better in respect of increased muscle tension.

If you adjust your chair so that your arms are held loosely by your side, your elbows are at roughly 90 degrees and your wrists relatively straight – then you’ve largely nailed it. If your feet are not firmly on the floor – don’t worry you can request a footrest. But do avoid sitting perched on the front of the seat with your feet tucked under resting on the base of the chair – this has an adverse effect on circulation in the legs and makes the chair less stable.

If you are fully supported in your seat. The length of the seat squab/base should be long enough to support your thighs but still allow you to get your bottom right up against the base of the backrest. If you are small and sitting in one of the large leather chairs you may find that the back of your knees push up against the front of the seat stopping your back being fully supported by the backrest. You may then decide to use an accessory back support or stick a rolled up fleece behind your back. If so you are on the wrong chair (you should be on one of the smaller ones). If you persist sitting on too large a chair two things can happen - one is your back adopts a curved posture which we have already determined strains ligaments and leads to discomfort around the low back and pelvic area, the other is you develop numbness in the buttock which can lead to sciatic nerve irritation.

If you are tall and find the chair doesn’t come up high enough it may be it needs to be fitted with a longer stem. But if this is the case it is possible the height of the desk may also need altering.

How can we go about achieving this?

	<p>Step 1. Ensure your shoulders are relaxed, your elbows held roughly at 90 degrees and your fingers lie over the home row of the keyboard. Bring the mouse as close in to your side.</p> <p>If the elbows are too high or low relative the desk then adjust the height of the chair – there should be enough adjustment for the majority of staff. Don't worry if your feet are dangling at this stage – that's what a footrest will be for. Avoid sitting forward in the chair and tucking your feet under you – not only does this make the chair unstable, it has an adverse effect on blood circulation in the legs. If you require one please advise your Supervisor.</p> <p>Sit close to the desk. If the armrests are in the way then lower them or flip them back out the way (black fabric chairs and older KAB chairs in ACC). A common myth is chairs MUST be issued with armrests – that is FALSE. Many people chose to rest their forearms on the desk (though best not to whilst actually typing).</p> <p>Are you straightening out your elbow to reach your mouse or keyboard? Bring them close into you so as to reduce shoulder strain. Your back should only be coming away from the backrest to reach infrequently used controls. If you cannot bring items close enough in because the cables are too short then you must report this to your Supervisor so that IT can fit longer cables.</p> <p>Wrist or forearm sore? – if you have the keyboard tilted too far upwards (cocking your wrist), or rest your wrist on a padded mouse rest and only move the mouse by flicking your fingers (rather than using the whole arm) that could do it!</p>
	<p>Step 2. As mentioned above use a footrest if your feet are left dangling once you've set up the correct working height. Note Dispatchers in ACC may find the Airwaves pedal design too awkward to fit on a footrest. The suggestion is then to use the touch screen /button option so long as the unit is not placed too far from you. If you cannot reach the touch screen/button without stretching far forwards, or end up using the foot pedal this will cause you to sit perched forward on the front of the chair. Not good. If this is the case report it to your Supervisor so that IT can assess whether the screen can be brought further in.</p>
	<p>Step 3 Sit right back in your chair with your bottom hard up against the backrest. As mentioned before if you can't achieve this because the front of the chair catches the back of your knees you are either need to change chairs or shorten the seat length (Does not apply to the larger 'manager type' chairs).</p> <p>The seat base should generally be flat though most chairs allow this angle to be adjusted for personal preference (those who are pregnant or who have low back pain often prefer the seat pan to be tilting slightly forwards with more upright backrest).</p> <p>The Seat back height should be adjusted so as the lumbar support is in the correct place (a one-way ratchet system) and on certain chairs there is an inflatable lumbar pump.</p> <p>The angle of the seat back is usually best is tilted slightly back. One trick is to sit back in your chair – if you fainted and you realise you'd pitch straight forward onto your keyboard then the chair might be too bolt upright. Conversely if it's too reclined you</p>

	<p>might find you are developing neck and shoulder discomfort from flexing your neck to compensate. There isn't necessarily a right or wrong way – listen to your body.....</p> <p>One common mistake, especially in ACC..... the majority of chairs which are set aside as 'broken' aren't. What staff have done is released a seat tilt button and then not locked it off. Other times a chair is reported as having a broken backrest – this is often because an individual wants to set the backrest at such a height the ratchet system won't support it.</p>
	<p>Step 4. When we sit looking at a screen our eyes are on 'dipped head lights' – that is with our eyes looking ahead we tend to see more below the midline than above. As a general rule the top casing of the monitor should be level with, or slightly below your forehead.</p> <p>If the screen is too high then the chances are the neck muscles will be working hard. Most often the screen is set too low. Sometimes that is by choice but it may be the screen has insufficient adjustment – in which case IT again must be contacted for advice.</p> <p>Put your hand on your neck and gently nod a few times whilst looking at the screen- If your neck is roughly in a 'mid' position then that's probably best.</p>

Section 2 Managing Aches and Pains.

On the next couple of pages are some exercises which are designed for general use – that is they should help most people but if you do not feel any stretching sensation then it might not be for you. Generally pick out the top four you find are the most beneficial – that is when you do them slowly you feel a definitive stretch happening. But before doing so here is the 'small print'.

There are a number of different coloured 'Flags' used within healthcare to identify sources of dysfunction (you may already be familiar with the concept via AMPDs etc) The most important are called 'Red Flags'. If you have any of the following symptoms associated with your neck and back seek medical advice (and explain your symptoms to ensure prompt appointment).

- a fever of 38°C (100.4°F) or above
- unexplained weight loss
- swelling of the back
- constant back pain that does not ease after lying down or pain is worse at night
- (unexplained) pain in your chest or high up in your back or pain down your legs and below the knees
- pain caused by a recent trauma or injury to your back
- loss of bladder control or inability to pass urine (emergency)
- loss of bowel control or numbness around your genitals, buttocks or back passage (emergency)

If you are/have attended a Physiotherapist, Osteopath, Chiropractor or Sports Therapist they may have already prescribed exercises for you – in which case follow theirs instead.

If they have recommended a small roller or tennis ball to help release (muscle) trigger points these can be used whilst at work so long as they won't be a trip/slip hazard to colleagues if left on the floor. However the use of 'gymnastic balls' should not be used for both safety reasons and a lack of evidence as to their benefits for prolonged sitting at a desk.

Out of Work: An increasing problem in the management of soft tissue injuries and discomfort is the prolonged use of smart phones and tablets. If you have been working a long shift it is possible that you

might curl up on the sofa and spend an hour or so on social media. Please be aware that as far as your muscle, neck and shoulder joints are concerned this is an extension to the shift you've just finished!!

Some gentle stretches.....

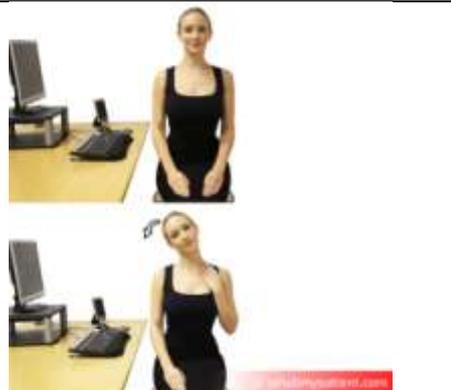
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Each stretch should be held for a minimum count of five seconds, and repeated to both sides. Always do stretches slowly and do NOT take any neck stretch to the end of range of movement until you are certain they do not cause nausea or dizziness. If they do desist and seek a referral to IPRS for a clinical assessment.

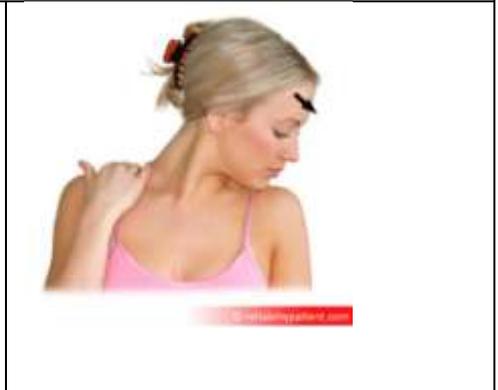
If the head is held in a forward tilt this may lead to adaptive shortening of the muscles (scalene and SCM) in the front and side of the neck. This can cause reduced range of movement, and nerve entrapment as they leave the neck into the shoulder.



Anterior Scalene. Hook your fingers above your collar bone, and gently rotate your neck to the same side, then extend your neck backwards. You should feel the stretch at the front of your neck under your fingers.



Mid Scalene & SCM muscles. Hook your fingers above your collar bone, and gently side-bend your neck to the opposite side. Hold the stretch. You should feel the stretch at the front/side of your neck. This exercise will help improve mobility to your neck



Posterior Scalene. Place your fingers in the webbing of your neck (just above the collar bone), and rotate your neck to the opposite side, and tuck your chin down. You will feel the stretch under your fingers at the side of the neck. Hold the stretch, and relax



Neck Rotation: Rotate your neck slowly to the left by looking over your left shoulder. Take your neck to a comfortable end of range. Repeat to the right. Make sure you keep your shoulder and back relaxed. This is an excellent exercise to improve rotation and mobility in your neck.



Neck Retraction. Pull your head back as far as comfortable and down slightly. You will feel some gentle tension at the front and back of your neck. This exercise will help your neck and upper back posture



Shoulder retraction Pull your arms backwards while squeezing your shoulder blades together, and joining your hands (or better still your arms in a 'Hands Up' position to combine with shoulder external rotation) . Hold the contraction and then relax, or simply hold the contraction for a longer period of time. You will feel a muscular contraction around and between your shoulder blades. The pictures are from a rehab programme – do not use a gymnastic ball in the office environment.

As we sit for periods of time our shoulders tend to roll forwards. In part this could also be due to a protruding neck posture and with time the back begins to bend forward too – creating increased strain on muscles and ligaments. It is therefore important we consider that if we adopt a position which drifts one way from a balanced posture then we

should try and gently stretch in the opposite direction. Hence the emphasis on extension and rotation rather than flexion .



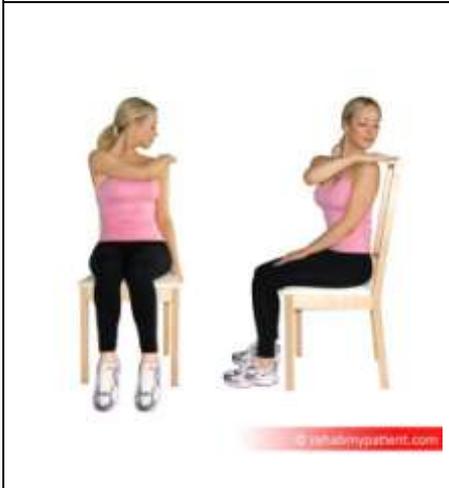
Shoulder Circling. With arms by your side, full circling shrugs backwards and forwards



'Reaching Itch 1'. Slowly take alternate arm as comfortably up back as possible.



'Reaching Itch 2'. Slowly take alternate arm as comfortably up back as possible.



Seated Rotation Exercise. This can also be done by crossing the arms across the chest to focus the rotation more on the lumbar area



Hip Flexion with overpressure. Bend your knee towards your chest. You can use your hands to assist you if required. Hold the stretch. This exercise will mobilise your hip joint – you may pulling in the low back and buttock area. This is a less practical exercise



Pelvic Tilt Sit down with good posture. Draw your belly button inwards (towards the back of the chair slightly) and tilt your pelvis backwards (i.e. flatten your spine against the chair). Return to the start position (arching your back - known as a lumbar Hyperlordosis). This exercise strengthens the deep abdominal muscles and improves core control.

You can combine this with slowly raising alternate thigh off the seat whilst drawing your back gently away from the backrest.



(left)
Spine Extension. The pelvic tilt exercises encouraged movement in the lower back. This exercise encourages movement of the mid back – remember your stretching it – not solely extending the neck! **NB- SIT BACK IN THE CHAIR TO AVOID IT MOVING/TIPPING WHILST COMPLETING THE EXERCISE.**

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