

# HOW TO WORK SAFELY & STAY PAIN FREE in your OFFICE or HOME WORKSTATION

Easy ergonomic advice and assessment.



# What is good work posture?

# 4 Steps to stay fit and healthy at your workstation

# 'We are NOT designed to sit, if we were, we would be shaped differently!' Anonymous

BUT we put ourselves in sitting positions for many hours a day and are surprised when we start to feel aches and pains.

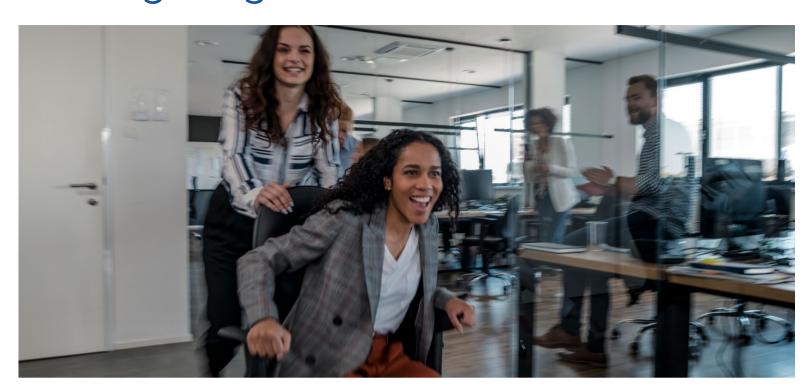
We are also designed to move and not be stationary, so when we 'sit still' for many hours our bodies 'will complain' as our muscles fatigue, have reduced blood supply and become imbalanced with some muscles overworking and developing 'spasm'.

# Does this all sound familiar?

Let's turn this around and break the cycle of workstation related pain which can cause you to become unhappy and unproductive potentially leading to more stress and tension and more pain.



# **Step 1-** Workstation Ergonomics – Getting it right!



# SITTING WORKSTATION SET UP AND POSTURE

- Your chair must be adjustable in height, seat angle and back rest position/ angle.
- Your chair must have correct seat size and backrest to suit you and your dimensions (everyone is a different shape, so your chair needs to cope with this).
- When sitting on your chair at your desk your feet must be on the ground or foot rest so your forearms are parallel with the desk height (adjust seat height to allow for this).
- Your back rest must be adjusted to support your lower back and maintain your low back curve or lordosis (if not sufficient- use a lumbar roll).
- Your back rest can be slightly reclined (10-20 deg.) and allow your lumbar support to support your spine and your upper back does not need to contact the back of the seat (don't lean backwards over the lumbar support, as this will create too much upper back tension).
- Arm rests are not required on a chair but if present do not let them stop you getting close enough to your desk and keyboard.
- Adjust your body so your buttocks are back in the 'corner' of the seat (back in seat as far as possible) and keep buttock muscles relaxed.
- DON'T BUTT GRIP! (Try and widen your sit bones and use your hands to help if required and develop a wider base this is called pyramid sitting and is wide at the base and more stable, so less need for muscle tension).
- This keeps your posture aligned with a neutral spine and normal lower back curve, so your postural core muscles can work in the background and help maintain posture.
- There still should be a small gap (2cm) between back of knee and front of seat.



# KEYBOARD AND MOUSE POSITION

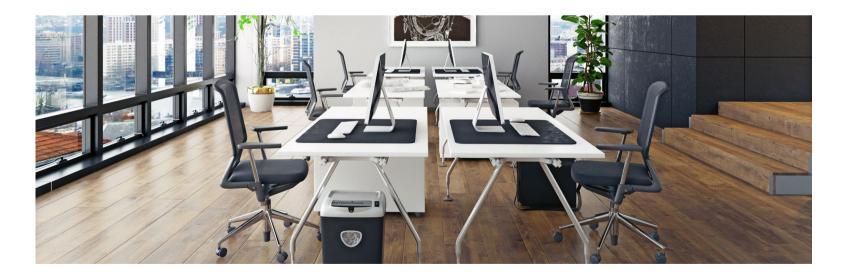
- Position the keyboard and mouse 10-15 cm from the edge of the desk to give worker some wrist and forearm support.
- Mouse must sit adjacent to keyboard, so you are not reaching for the mouse.
- Ensure keyboard and mouse are in good working order and the correct size for worker's size and body shape.
- Wrists must be in neutral position on keyboard and mouse ensuring relaxed wrist and forearm muscles with no sustained muscle tension.

# MONITOR POSITION

- Adjust monitor height to be positioned at eye height with good sitting posture and position your head and neck so you are looking forward at the top 1/3 of screen.
- If the worker has multifocal glasses, then the monitor can be a little lower.
- Monitor should be approximately 50cm from worker so there is space for document between keyboard and monitor.
- One monitor is ideal, but if double monitors are required adjust body position by swivelling chair NOT just turning head if needing to use monitor for extended period.

# STANDING WORKSTATION SET UP AND POSTURE

- Make all the same considerations for monitor position, desk height, keyboard, and mouse position.
- Adjust height of desk so arms are parallel with desk height and wrists resting comfortably on the keyboard with 10cm gap behind keyboard.
- Your standing posture is critical to make this workstation maintainable. Remember you will also fatigue in standing and often when people take up this option of workplace set up, they are not strong enough to stand all day. This can lead to fatigue, pain and loss of posture.
- A variety of sitting and standing workstations are advised to prevent fatigue in either position.





# STANDING POSTURE ESSENTIALS

- Keep knees soft (don't lock your knees!).
- Keep weight equal over both feet and weight through the mid part of the ankle (NOT back of heels- which will make you lock your knees and tilt your pelvis abnormally)
- Pelvic tilt to find neutral spine posture

**TIP:** Exaggerate the tilt forward, then backwards. Imagine your pelvis is full of water and as you tilt forward you tip water out the front and as you tip backwards you tip water out the back and find the neutral spot where the water is level.

• Finding this neutral spine posture will help you to activate your postural core muscles.

**TIP:** You can't activate your core muscles all day, they need to work in the background in a subconscious way with postural endurance.

• Stack your upper body and head on lower stable core.

**TIP:** Try not to sway back or use muscle tension in your upper back to hold your posture, as this can lead to fatigue, spasm and pain across your shoulder blades.

- Relax your shoulder girdle on your upper body so your neck and shoulder muscles are relaxed, and forearms can rest on desktop.
- Keep head in a neutral position, eyes facing top 1/3 of monitor.

# **Step 2-** Change position regularly and stay fit

- Remember we are not designed to remain still, so we need to change position regularly to give muscle and joints a change in position, length and tension.
- You will need to take regular short breaks from your sitting or standing workstation.
- It is advised to move away from your desk every 45-60 minutes and adopt a different posture or movement pattern.
- Move your body in different ways so you are not maintaining a stationary or static position (especially if you are experiencing pain).
- Listen to your body and move your body if you are feeling pain or fatigue- especially in the lower back, upper back, neck, shoulders or arms.





# Suggestions

- Do 'pause exercise' every 60-90 minutes (see Fact sheet 1).
- Walk away from the workstation every 30-60 mins do another task.
- Stand up and walk when on the phone.
- Conduct standing or walking meetings.
- Arrange office environment to encourage movement eg printer placement.
- Go for a walk at lunch time.
- Stay fit and healthy away from the workplace- Do not sit for hours at home after work.

# **Step 3-** Have your workstation assessed or audited.

- A workplace audit is a workplace assessment and considers aspects of your set up which may contribute to overuse of muscles or put strain on joints which could lead to pain and injury.
- Every business has a duty of care to ensure their workers are safe at work, and this includes their workstation set up.
- Every worker has a duty of care to themselves and their employer to stay fit and healthy so they can do their job as efficiently as possible.
- As an employer you must educate your workers in prevention of workplace hazards and risks and manage this appropriately.
- This should include education in workplace posture and set up making the worker responsible for this in their own Risk Management Plan.
- Workplace/ Workstation audits can be as simple as a 10-15 minute look and discussion to a 30-45 minute detailed assessment and action plan.
- We have provided a self assessment checklist at the end of this ebook to give you some guidance in making changes to your workstation setup. Use this as a start.



Simply ask East Gosford Physio what is best for you and your organisation.

#### Contact us -

East Gosford Physiotherapy and Sports Injury Centre 43237499 mail@eastgosfordphysio.com.au



# **Step 4-** Look at your home workplace setup and mobile work environment

Ergonomic considerations with the use of mobile devices and laptops

- Today's work arrangements often lead to working from home, working in the car, or even working in a café or hotel room.
- If you have a regular workstation at home or on the road do not fall for the old 'laptop on the lounge' trick.
- This will undo all the good work you have applied in the office and lead to pain and injury.
- All the principles you have applied to your ideal office workstation set up and the postural considerations you have applied to stay pain free- apply to the use of your laptop or mobile device in any environment.
- We advise you discuss with your Physiotherapist how to apply these principles to these other environments and devices.
- An assessment or audit of your posture when using your laptop or mobile device is relatively easy as we can conduct it in the clinic or our carpark.

### TIP WHEN USING YOUR LAPTOP OR MOBILE DEVICE:

- 1. Try and sit in a good seat and use a desk.
- 2. Consider the height of seat and desk as per Fact Sheet 2.
- 3. If using a laptop for extended period- set up your sitting posture and then put the laptop on books on your desk and use a detached keyboard and mouse at the correct height for your desk and chair.
- 4. Remember to still have regular breaks and change position (more important as you will fatigue).
- 5. Use pause exercises to 'Reset' muscle tension and joint position.
- 6. Hold your mobile device up to your upper chest so you are not bending your neck and head to it on your lap.
- 7. Do not use a mobile device in poor sustained position for greater than 10 minutes- move and adjust posture.





# How we can help

East Gosford Physiotherapy and Sports Injury Centre applies it's 3 Step Pain to Performance Model to improve your work performance by taking away your pain with good ergonomic management.



- We offer workstation audits and assessments, and this can be as simple as sending a photo of you sitting at your workstation to an onsite assessment.
- Onsite assessment can be as simple as a 10-15 minute look and discussion to a 30-45 minute detailed assessment and action plan.
- East Gosford Physio can also provide you with an exercise program to help manage the effects of sitting or standing at your workstation.
- Some simple pause exercises are provided at the end of this eBook.
- DON'T take the risk of developing musculoskeletal problems from being stationary at your workstation.
- Make your workstation as safe as possible with correct ergonomic set up and don't forget the safe use of mobile devices.

# What do I do today to make my workplace safe?

Do your own workstation audit by using our Computer Workstation Ergonomics- Self Assessment Checklist

Have a WORKSTATION AUDIT with East Gosford Physiotherapy and PREVENT issues developing in the future.

Self Help Guide – Go to this link to learn some easy stretches or pause exercises demonstrated by a physio which you can do through the day.

https://www.youtube.com/watch?v=2G7Wb8jXJs4&t=127s

#### References

1.University of Western Australia, Safety, Health and Wellbeing Computer workstation ergonomics 2012, website 2.National Institute of Health, Office of Research Services, Division Of Occupational Health and Safety Website





24 Brougham Street. East Gosford NSW 2250

Phone: 4323 7499

Fax: 4322 1499

www.eastgosfordphysio.com.au

## COMPUTER PAUSE EXERCISE PROGRAM

Hold Stretch x 15 Seconds; Repeat Movement x 10; can be performed in sitting or standing

- 1. NECK RETRACTION double chin
  - Sitting or standing and translate head backwards causing double chin
  - Don't tilt or nod head
- 2. SIDE NECK STRETCH
  - Tilt head to side (ear to shoulder)
  - Can hold onto chair to keep trunk stable
- 3. NOSE TO ARMPIT STRETCH
  - Tilt head to side and rotate forward bringing nose to armpit
- 4. NECK ROTATION
  - Turn head to one side and repeat to the other
- 5. NECK FLEXION
  - Tuck in chin and bend head forwards
- 6. NECK EXTENSION
  - Look at ceiling and stretch neck back do without pain
- 7. SHRUG SHOULDERS
  - Lift or shrug both shoulder and relax again
  - Don't poke out head
- 8. WRIST AND FINGER STRETCH
  - Outstretch arm and pull fingers/wrist backwards
  - Feel stretch in forearm
- 9. WRIST EXTENSOR STRETCH
  - Relax arm at side and bend wrist and fingers turning palm outwards

### 10. SHOULDER BLADE STRETCH

- Pull bent arm across body and feel shoulder blade pull off spine
- 11. LIFT ARMS ABOVE HEAD IN SITIING
  - Keep back in chair and lift arms above head
  - Lean back over chair from upper back
- 12. TRICEPS AND SIDE STRETCH
  - Reach for shirt label and support elbow with other
    hand
  - Side bend upper body away
- 13. CHEST STRETCH
  - Hand doorway and turn body away
  - Tilt head away but don't overstretch

Ref: The Stretching Handbook F. St George, Sydney 1994 Images: summitmedicalgroup.com























# Office Workplace Ergonomics & Set up for Home and Work





### **Desk**

- Height is often unchangeable.
- Position yourself with chair height to suit your desk height.
- Will need to support feet with foot rest if not on ground.
- Align yourself so upper body and head are stacked on lower body without muscle tension- use relaxed postural alignment.
- Do not lean forward or backwards.



### **Monitor**

- Keep directly in front of worker so you do not need to rotate neck.
- Position eyes at the top 1/3 of screen.
- Keep Monitor approx 50cm from worker.
- Turn chair if using 2 monitors to face monitor in use. (don't just turn neck)



### Desk **Organisation**

- Keep document space between keyboard and screen.
- Keep commonly used equipment within easy access (don't overreach) e.g. phone
- Use document stand to maintain head and neck posture.



### **Foot Rest**

- Feet firmly on ground or use foot rest if set up doesn't allow feet on ground.
- Feet on ground keeps posture maintained and helps to keep buttocks back in chair, and relaxed.



### Chair

- Hips sit slightly higher than knees.
- Good supporting chair is essential.
- Must have adequate lumbar support.
- Chair height to allow arms to be parallel with desk height.
- Keep bottom back in chair and relax butt muscles.
- Don't lean backwards and have neutral spine.
- Chair arm rests not required.



# Mouse and Keyboard

- Forearms parallel to floor and fingers/ hands resting on keyboard.
- Wrists, elbows, and shoulders relaxed.
- Keyboard 10-20cm from desk edge so wrists can rest on desk or wrist support.
- Mouse adjacent to keyboard (no reaching).
- Forearm and wrist relaxed on mouse.

## **GOOD SITTING POSTURE**

- Use lumbar support built into chair or add a lumbar roll to maintain a gentle tilt forward of pelvis and curve or lordosis in lower back.

- Do not lean backwards over support.
  Allow upper body "to stack" on lower body.
  Keep upper back relaxed but NOT slumped
- Change position regularly- GET UP & MOVE.

#### STANDING WORKSTATION POSTURE

- Same monitor and keyboard/ mouse principles of eyes at top 1/3 of monitor and wrist/ arms/ hands relaxed on keyboard and mouse.
  Desk height adjusted so arms are parallel with desk height.
  Keep knees soft and weight evenly distributed through mid part of both feet (Not the back of your heels, and do not lock your knees).
  Keep pelvis and lower back relaxed and neutral.
  Stack upper body on pelvis and rely on good 'postural core stability'
- so you don't tense upper back to stabilize

# **East Gosford Physiotherapy Computer Workstation Ergonomics:**

Self-Assessment Checklist

The goal of this self-assessment is to help you set up your workstation for optimal comfort and performance.

Reference: National Institute of Health, Office and Research Services, Division of Occupational Health and Safety Website.

Item	The Office Chair	Yes	No	N/A	Suggested Actions
1.	Can the height, seat and back of the chair be adjusted to achieve the posture on attached document?				-Obtain a fully adjustable chair
2.	Are your feet fully supported by the floor when you are seated?				-Lower the chair -Use a footrest
3.	Does your chair provide support for your lower back?				-Adjust chair back -Obtain lumbar roll
4.	When your back is supported, are you able to sit without feeling pressure from the chair seat on the back of your knees?				-Adjust seat pan -Add a back support
5.	Do your arm rests allow you to get close to your workstation?				-Adjust armrests -Remove armrests
Item	Keyboard and Mouse	Yes	No	N/A	Suggested Actions
6.	Are your keyboard, mouse, and work surface at your elbow height?				-Raise/ lower workstation -Raise or lower keyboard -Raise or lower chair
7.	Are frequently used items within easy reach?				-Rearrange workstation
8.	Is the keyboard close to the front edge of the desk allowing space for the wrists to rest on the desk surface?				-Move keyboard to correct position
9.	When using your keyboard and mouse, are your wrists straight and your upper arms relaxed?  ( NOTE- The keyboard should be flat and not propped up on keyboard legs as an angled keyboard may place the wrists in an awkward posture when keying.)				-Recheck chair, raise or lower as needed -Check keyboard and mouse height
10.	Is your mouse at the same level and as close as possible to your keyboard?				-Move mouse closer to keyboard
11.	Is the mouse comfortable to use, is your hand or wrist fatiguing?				-Use non-dominant hand for mouse -Look at mouse options
Item	Work Surface	Yes	No	N/A	Suggested Actions
12.	Is your monitor positioned directly in front of you?				-Reposition monitor
13.	Is your monitor positioned at least one arm's length away?  Note: the monitors location is dependent on the size of the monitor, the font, screen resolution and the individual user e.g. vision/ use of bifocal spectacles etc.				-Reposition monitor
14.	Is your monitor height slightly below eye level.				-Adjust monitor height
15.	Is your monitor and work surface free from glare?				-Adjust overhead lighting -Cover windows -Obtain antiglare screens
16.	Do you have appropriate light for reading documents?				-Adjust light
17.	Are frequently used items located within the usual work area?				-Rearrange workstation
Item	Breaks	Yes	No	N/A	Suggested Actions
18.	Do you take postural breaks every 30 minutes? E.g. standing, walking to printer/ fax etc.				-Set reminder to take breaks
19.	Do you take regular eye breaks from looking at your monitor?				-Refocus on picture on wall every 30 minutes



