

Understanding RSI Separating symptoms from the true root causes of RSI is crucial to any effort at rehabilitation. The following diagram shows what we think are the main factors that cause RSI in computer users.

Root Causes

1. Working in one position for years
2. Millions of repetitions
3. Work intensity
4. Aging and loss of tissue resilience
5. Physiology and anatomy
6. Ergonomics
7. Personality

The Dangerous Feedback Loop

Secondary Results that Become Causes

12. Compensation and overloading
13. Inflammation and swelling
14. Abrasion and irritation
15. Nerve entrapment
16. Loss of sleep

Initial Results

8. Fatigue
9. Slouching posture
10. Muscle tension
11. Chest compression

Ultimate Results

17. Pain
18. Numbness
19. Anxiety or depression

The tricky part of RSI is that the damage can be accumulating for years, before the symptoms get bad enough to make you take action. We believe that the traditional diagnoses, such as tendinitis and carpal tunnel syndrome are more appropriately regarded as symptoms, and you must change your body, work habits, and workstation to attack the root causes.

3 Degrees of RSI

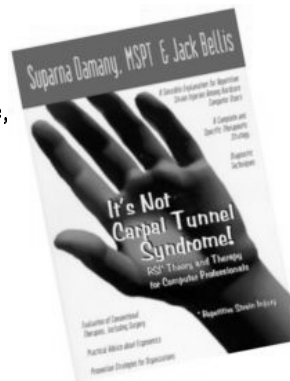
- ☐ **1st-Degree RSI:** occasional, unpredictable aching, such as a sore muscle or tendon that comes and goes.
- ☐ **2nd-Degree RSI:** frequent or predictable problems, burning, throbbing. Tendinitis and other "acute" injuries are examples.
- ☐ **3rd-Degree RSI:** constant pain, improper nerve sensations, strength or endurance problems. Myofascial pain syndrome (chronic muscle inflammation) or nerve trigger points (nerves tethered in place) are examples.

This is an educational brochure... if you have health problems, see a licensed medical practitioner.

Resources

- ☐ RSI Advice:
www.RSIProgram.com
- ☐ RSI Encyclopedia:
www.TIFAQ.com
- ☐ Print-All-at-Once Site:
www.engr.unl.edu/ee/eeshop/rsi.html
- ☐ Find-a-Doc
www.engr.unl.edu/ee/eeshop/rsi.html
- ☐ Discussion Group:
www.ucsf.edu/sorehand
- ☐ Break/Stretch Reminders:
<http://www.silversoft.com/reminder/>
<http://www.paratec.com/>
- ☐ Massage Device:
www.Armaid.com
- ☐ Windows Labor Saver:
Powerdesk from www.Ontrack.com
- ☐ Web Search Labor Saver:
www.Copernic.com
- ☐ Mouse Alternative (Touchpad):
www.Cirque.com

Excerpted from
"It's Not Carpal
Tunnel Syndrome,
RSI Theory &
Therapy for
Computer
Professionals"
by Suparna
Damany, MSPT
& Jack Bellis



Available at Amazon.com,
BriansBooks.com
or (800) 789-8590

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www.RSIProgram.com



Repetitive Strain Injury- Theory & Therapy for Computer Users

Repetitive strain injuries, such as the well known carpal tunnel syndrome, have become the leading workplace health problem in just the last few years, accounting for about 60% of what OSHA categorizes as illnesses. Most RSI's are minor, reversible conditions... but only if you have the right information and take the appropriate action before the problem gets worse. If you ignore the symptoms, you risk starting the invisible cycle of pain and damage that can turn a minor injury into a chronic problem.

Don't have symptoms? Our top advice is "Keep all of your joints in motion to prevent RSI." Already showing symptoms? Our top advice is "Address your symptoms early!"

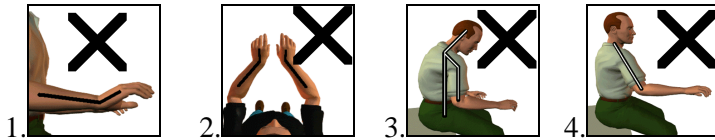
Use this brochure to help understand your situation, but use this information with the guidance of a licensed healthcare professional.

This brochure is free to copy if unaltered,
and can be printed from www.RSIProgram.com.
Give one to a friend! Copy it for your whole company.
Give them out on International RSI Day-February 28, 2001

3. Therapy The recommendations on this page have been grouped to roughly correspond to our Three Degrees of RSI on the previous panel. This is somewhat of an oversimplification to help you digest the information. For any individual situation, you generally have to mix and match the techniques. For instance, even in purely preventive situations it may be wise to use some of the 2nd and 3rd degree techniques, especially as your years behind the keyboard increase.

Preventing 1st-Degree RSI: Breaks & Ergonomics

- ❑ **Stay in motion! This will keep your joints lubricated, nerves flexible, and muscles oxygenated. You'll avoid trance-like concentration that makes you rest your wrists at pinch points. Breathe deeply in and out, moving your stomach and lungs. Fidget!**
- ❑ Do something other than keyboard work for 2-5 minutes out of every 15-30 minutes.
- ❑ Don't bend your wrists up (figure 1) or out (figure 2).
- ❑ Balance your head above your torso—don't roll your shoulders or neck forward (figure 3).
- ❑ Keep your elbows close by your side—don't reach out (figure 4).



- ① Adjustable seat with good lumbar support.
- ② Posture comfortably balanced and upright.
- ③ Monitor at comfortable reading distance.
- ④ Monitor just below eye level, tilted up a little, free from glare.
- ⑤ Keyboard and mouse on tray so you don't reach up to them; possibly tilted away from you slightly to avoid bending wrists up.
- ⑥ Your feet reach the floor when your knees are at 90-degrees. Otherwise, use footrest.
- ⑦ Seat pan provides full support.
- ⑧ Forearms horizontal so that wrists are straight (left-to-right and up-down). Your wrists do not rest on anything when working.
- ⑨ Elbows close by your side, so you don't have to support your arms. The bend should be slightly more open (closer to straight) than a 90-degree angle.

Note that the techniques above--ergonomics-- will generally NOT reverse the two forms of tissue damage associated with serious RSI: chronic muscle inflammation or nerves that are tethered in place by years of overuse in a single posture. For those problems, we recommend professional help.

Debatable Therapies We feel that **wrist braces** might help at night, but otherwise contribute to weakening. **Anti-inflammatory drugs** are questionable because they only address symptoms and risk serious stomach irritation. **Surgery** is a last resort because, in serious RSI patients, the problem often moves to another spot after surgery.

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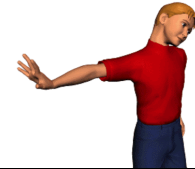
Treating 2nd-Degree RSI: Flexibility & Stretching, Workstyle Modification

Stretching and strengthening are only to be done after nerve adhesions and inflammation is reduced. If these exercises hurt, you're not ready for them. Get professional help.

Breathe Fully, from the belly. Many computer users hardly breathe when concentrating.



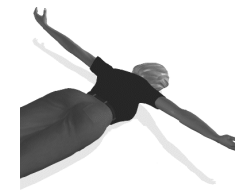
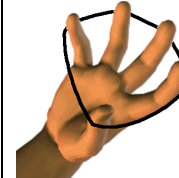
"Glide Exercises" These are special stretching exercises in which you move gently from one position to another to put a nerve through its complete range of motion. Check our website for details.



Stretching exercises can help battle RSI. Go slowly and gently.



Strengthening exercises are the best long-term defense against muscle inflammation.



Treating 3rd-Degree RSI: Massage Therapy, Workstyle Reduction

- ❑ Stop typing until you control your symptoms.
- ❑ Get professional help from an experienced RSI therapist to eliminate muscle spasms or nerve adhesions.
- ❑ Temporarily type with one or three fingers on each hand.
- ❑ Try voice recognition, yoga, or biofeedback.
- ❑ Become less obsessive about keyboard work. *Get a life!*