

Diffuse RSI

(Non-specific upper limb pain,
NSAP)

The role of reduced peripheral nerve mobility

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The IDEA

Abnormal limitation of nerve movement



Mechanical stress, reduced blood flow



Minor nerve injury, altered nerve function

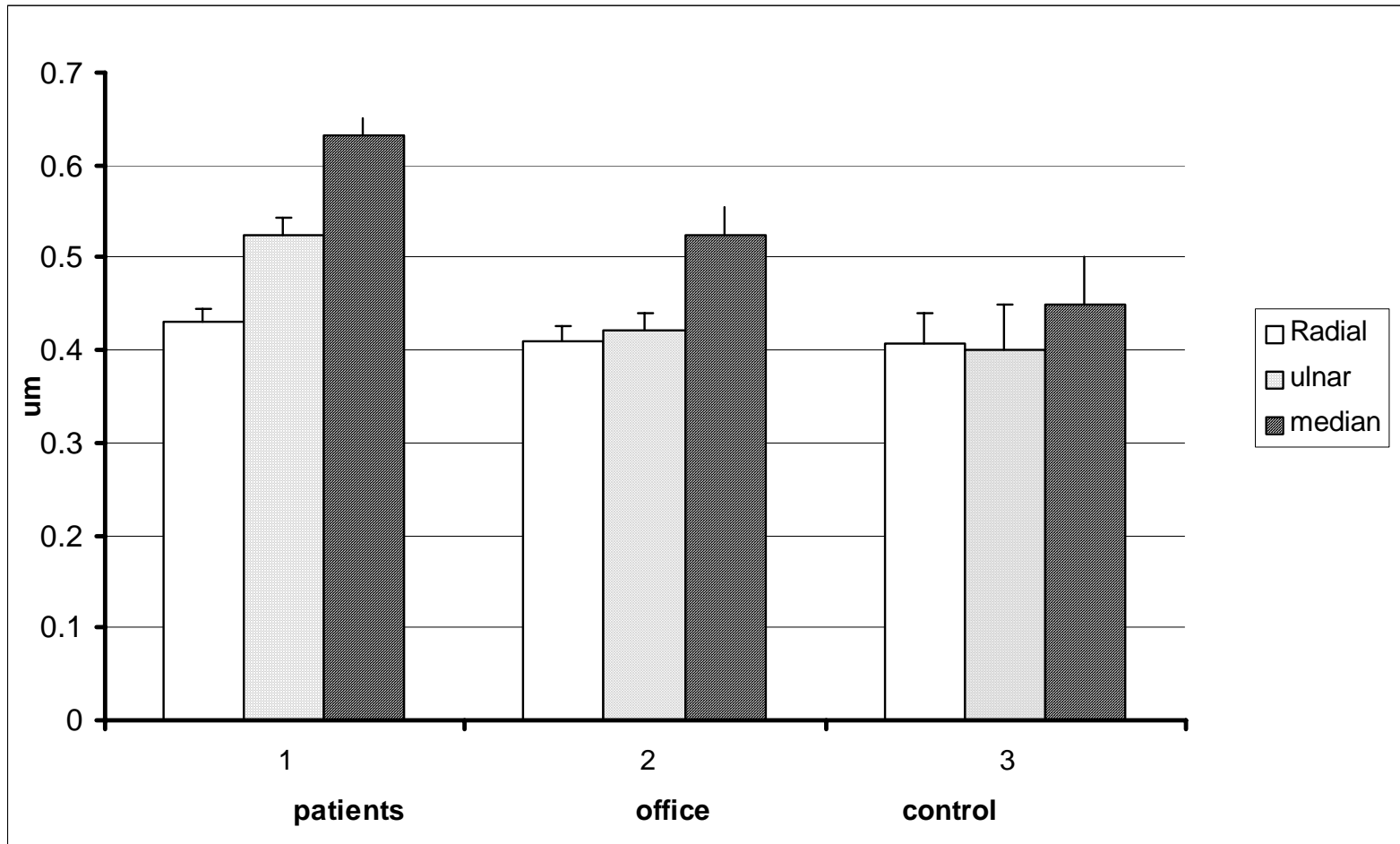


PAIN

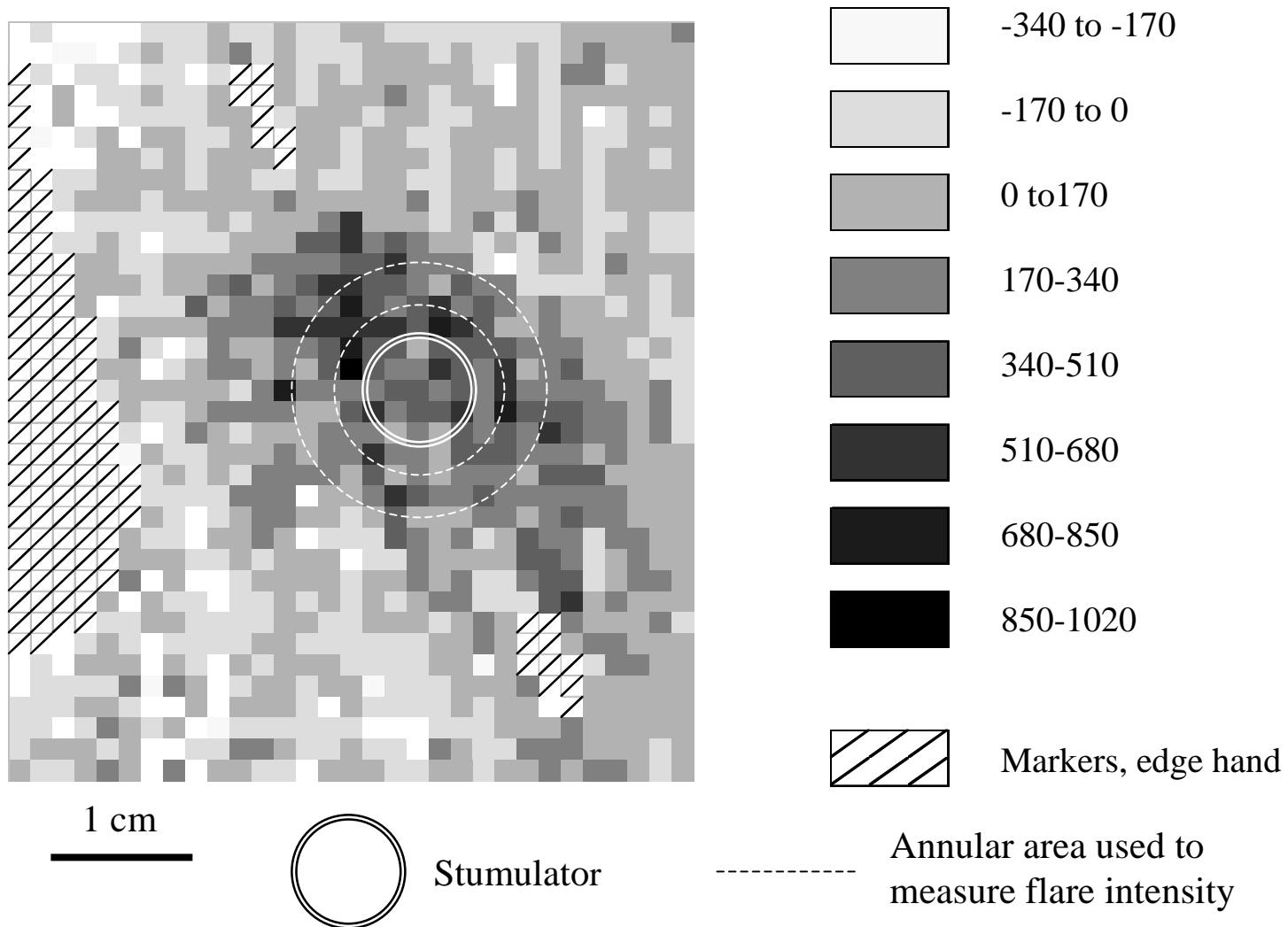
Key characteristics of subjects, cross-sectional study, 2001

Group	Number	Age			% Male	Other
		Average	Min	Max		
NSAP (RSI) Patient	47	31	22	40	32	Time since onset symptoms, 2 months to 11 yrs
Office Worker	40	30	21	40	22.5	Time in job with intensive DSE use, 2 to 23 yrs
Control	44	27	20	39	36	

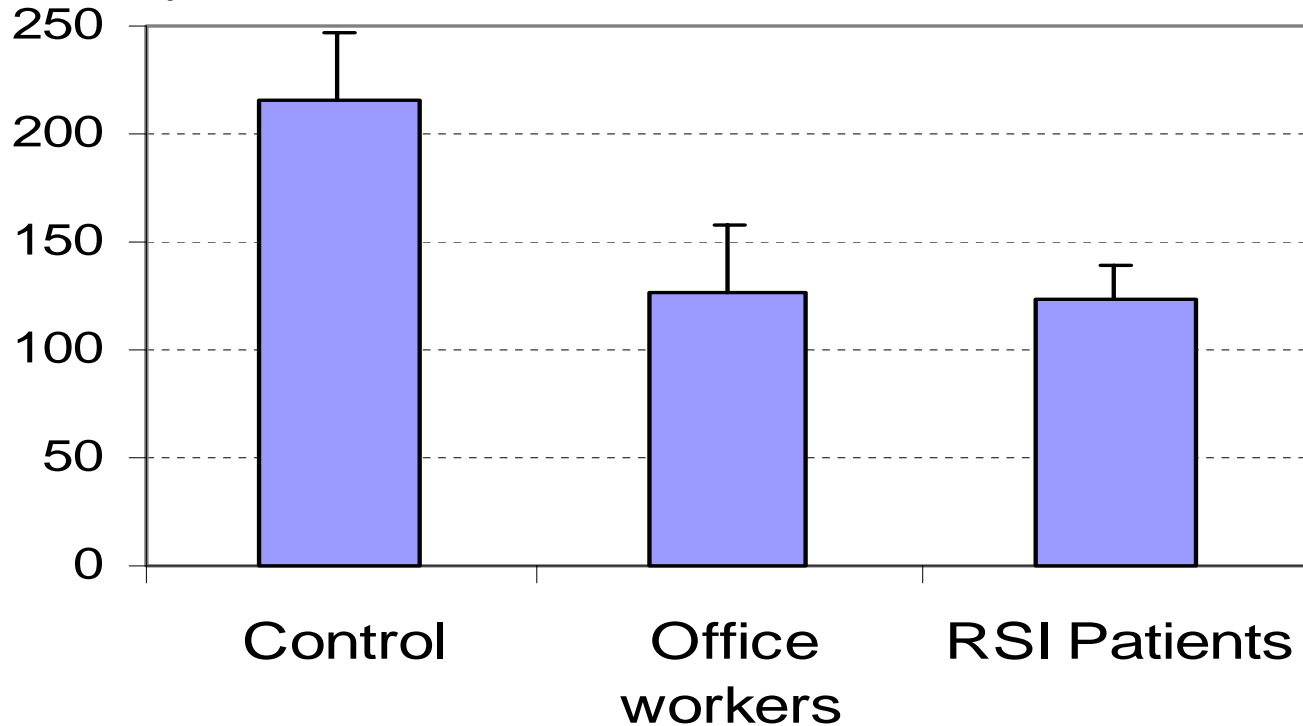
Average vibration threshold for all areas and all groups, cross-sectional study, 2001



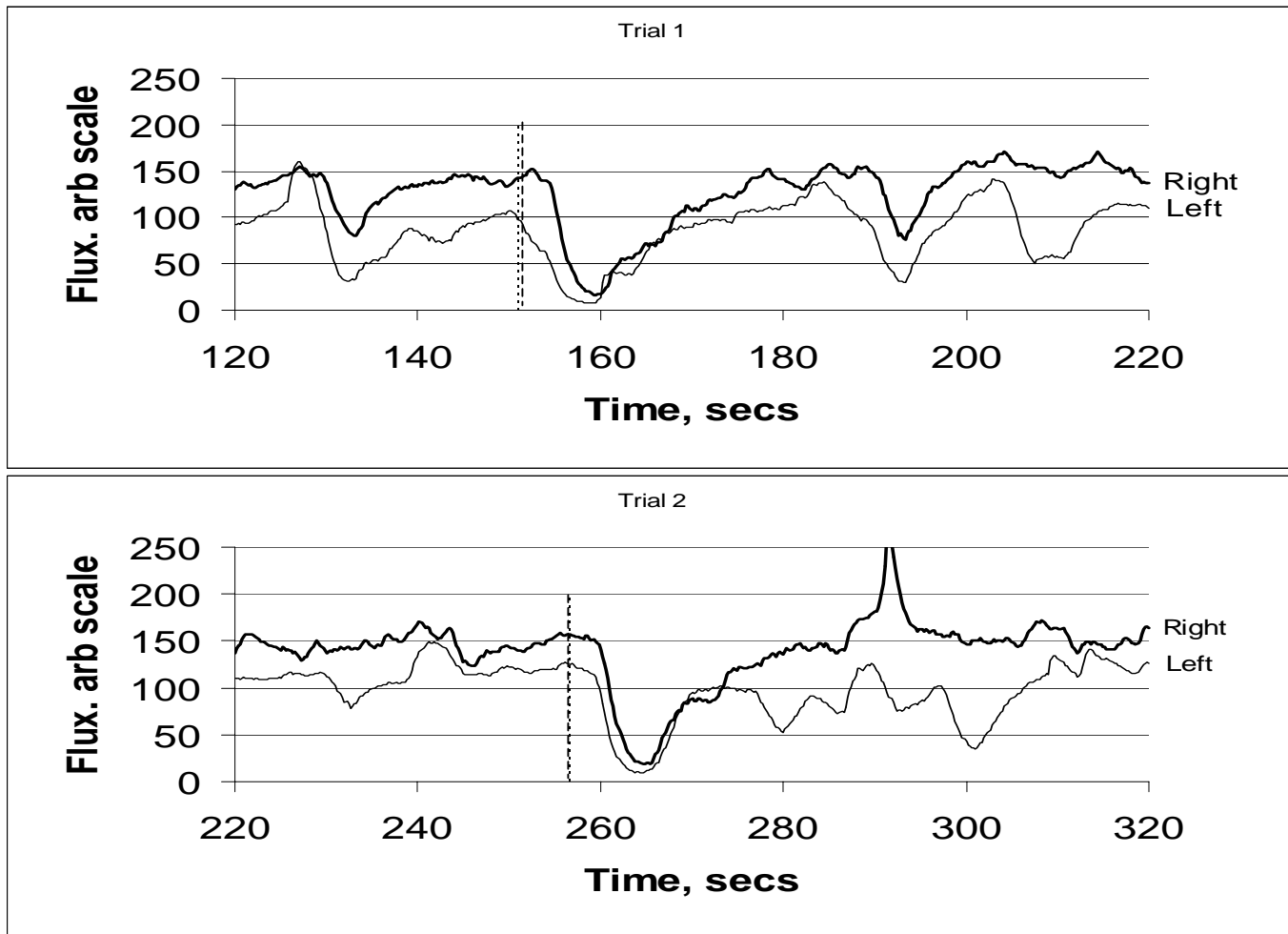
Typical flare. Left hand. Background (509 units) subtracted.



Flare intensity

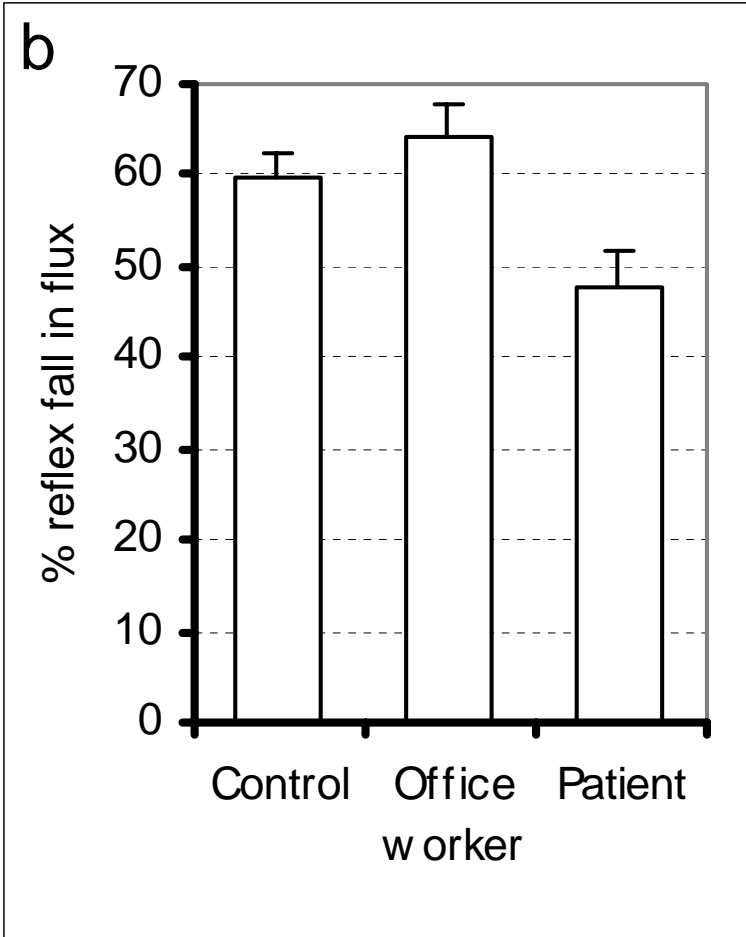


Flare responses to histamine ionto-phoresis for the hands of controls, office workers and rsi patients. Flare intensity, flux units above background at 2-5mm from the edge of the ionto-phoresis electrode.

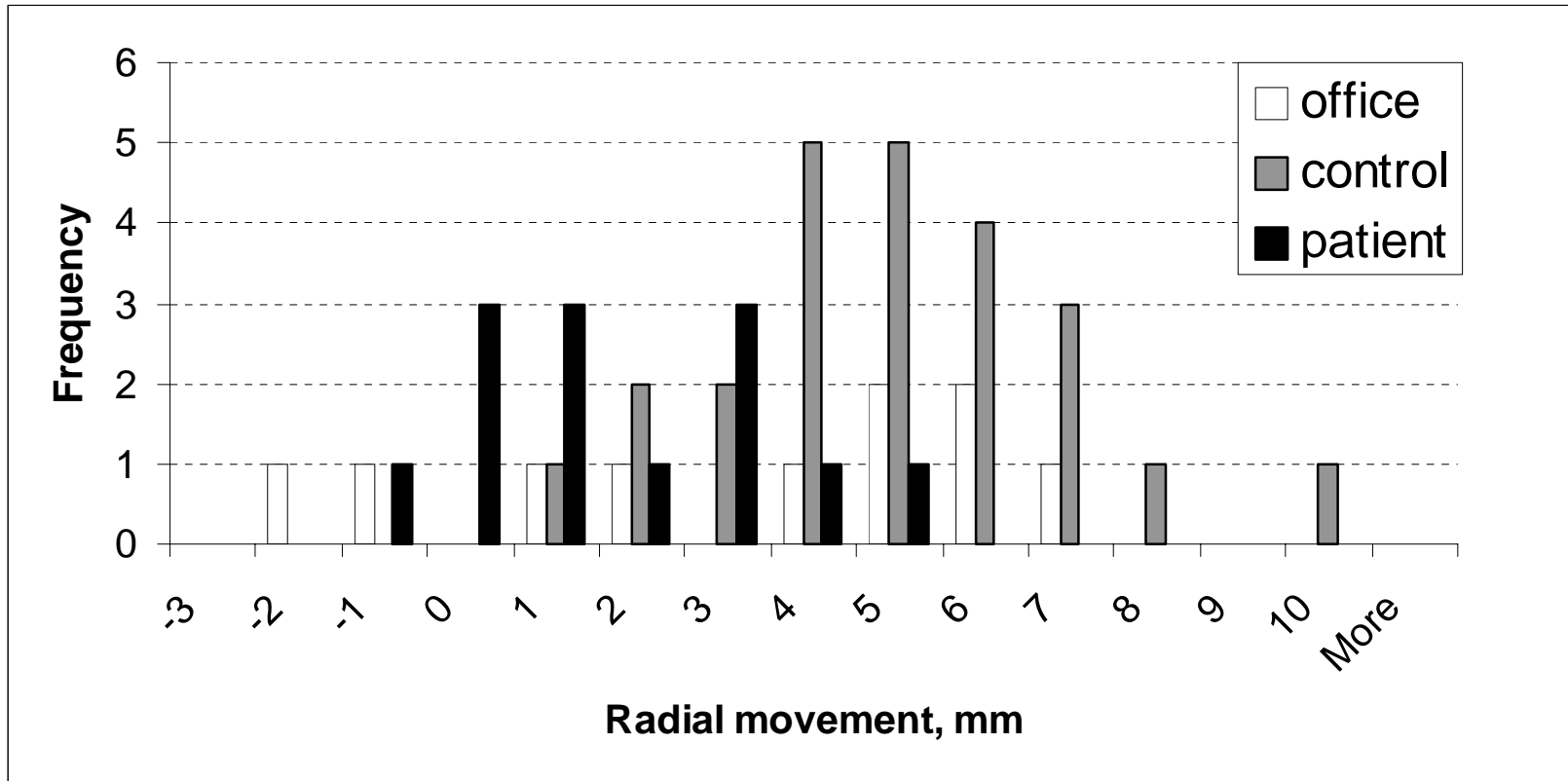


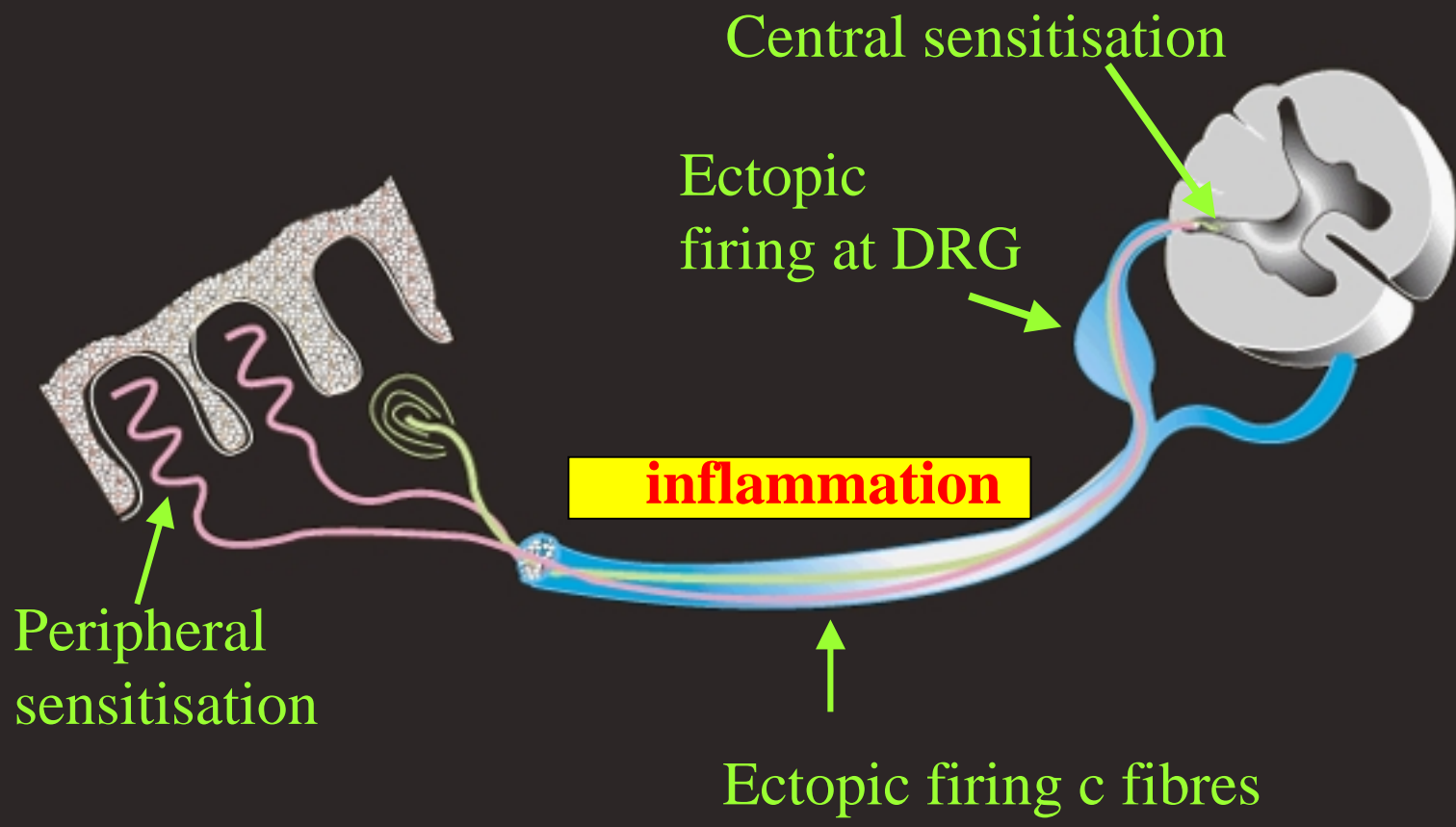
Vasoconstriction reflexes in response to ice (applied at the vertical dashed lines). Relatively large responses with, unusually, little reduction on trial 2. Time scale is continuous from the upper to the lower part. Note the typical variable baseline. Recordings from similar locations within the median nerve distribution on each hand.

Vasoconstrictor sympathetic reflex in RSI patients and “at risk” office workers. Mean reflex fall in flux. Error bars +1 se.



Frequency distributions of the extent of radial movement of the median nerve during a wrist movement from 30° extension to 30° flexion. The office workers (office) show a wide range compared with either the RSI patients or the controls. Patient and control data from Greening et al (2001) plus some additional data from this study.





Central sensitisation

Ectopic firing at DRG

inflammation

Peripheral sensitisation

Ectopic firing c fibres

Summary

Nerves need to slide freely during limb movement

Nerves appear less free to move in RSI patients

This could lead to some nerve injury

There is clear evidence in RSI patients of diminished nerve function

There does appear to be “something wrong” in many RSI patients