

## Persistent Pain State, Compromised Neural Plasticity and Reflextherapy

Gunnel Alice Berry\*

Hunters Moon Cottage, Preston Candover, Basingstoke, RG252EP, UK

\*Corresponding author: Gunnel Alice Berry, Lecturer/Clinician, Private Practice, Hunters Moon Cottage, Preston Candover, Basingstoke, RG252EP, UK, Tel: 01256 – 389722, E-mail: [gunnel.berry1@gmail.com](mailto:gunnel.berry1@gmail.com)

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### Opinion

'Persistent Pain' [1] describes the notion of 'chronic pain' where unpleasant sensations continuously rise and fall to unimaginable height and lows on a daily basis. Persistent pain may begin after an accident or other grievance but may seemingly have no underlying cause.

'Neural Plasticity' [2] is normal, ongoing interchanges of messages within the nerve tissue suggesting adaptability in the system. 'Compromised Neural Plasticity' [3] is an abnormal adaptability, resulting from disturbance in the nerve tissue. An interruption of interchanges of peptides in the axonal flow has occurred. The synaptic clefts in the periphery and the central brain areas are the most obvious areas of excitatory and inhibitory peptides exchanges relaying, driving, influencing and passing on information for muscle contraction, hormone release, kidney distillation and heart rate function etc.

The effect of injury and grievances occur where a deceleration force such as a whiplash incidence, fall from a height, tripping downstairs or emotional upset expose the body to direct physical and/or mental trauma. The sequel is an interrupted neural plasticity coherence which has an immediate effect on the nervous system as a whole. We do know that neural interfaces can be disturbed with minor injuries, [4] the blood flow is interrupted and prohibited to reach the tissue matrix. Continuous compromise in blood flow changes nerve tissue content and reduces effective conduction to intended targets. As well as 'pain', changes in vasoconstriction/dilatation indicate compromise in autonomic nerve tissue supply. Pain is driven by overload of excitatory peptides. Minor disturbances of intrinsic supply systems may be insignificant in small portions but collectively may become a major lack of plasticity. How do we turn the tap off? What mechanism inhibits production of sufficient innate descending peptides, enkephalins, endorphins and opioids to overcome excitatory overload? Presently intake of pharmaceutical opioids may provide pain-relief but are there other treatments which could encourage inhibitory peptides?

Anecdotal evidence suggests that Adapted Reflextherapy (AdRx) provide pain-relief for a considerable number of patients with persistent pain [5]. AdRx is akin to reflexology, a massage technique to the feet, but with higher specificity and definition of areas to treat. 'Massage' facilitates production of inhibitory peptides and reduces anxiety states and lowers blood pressure [6,7]. AdRx hypothesis is based on the notion that sensory tactile stimulation enhances activity of inhibitory peptides in cases of compromised neural plasticity likened to a remodelling of central processing activity. A thorough clinical reasoning process using discussion, examination and foot assessment may isolate (possible) causes of ongoing chronic, persistent pain which may stem from past injury (-ies). Hitherto, millions of people suffer persistent pain but are not offered an educated choice of treatment to reduce their painful state.

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