

# Railway Spine: a medical condition extinct or evolved.

When large numbers of people present with similar symptoms without any specific and objective diagnostic criteria with which to label the illness there develops a medical dilemma. Cancers, infections, and other illnesses with specific diagnostic and reproducible tests do not usually cause these problems.

In the 19th century railways were new, exciting, noisy and fast. As a novel experience to society they could also be frightening.

Early dissenters of railway travel would describe with much "scientific" support the potential dangers of transporting human beings at such terrifying and unprecedented speeds. When Brunel first completed the Box Tunnel for the Great Western Railway it was muted quite seriously that passengers would not survive travelling through this tunnel at speeds of over 40 miles an hour due to respiratory problems. Queen Victoria would not allow her train to go any faster than 20 miles an hour, while a visiting Shah of Persia insisted on an even slower speed as his doctors feared he might otherwise suffocate. Serious railway accidents occurred with high fatalities and Charles Dickens was in two of them and graphically described the wails of the injured and dying. Safety on the railways was developing and when asked to comment on the efficacy of his braking systems at an enquiry following an accident Brunel described them as "tolerably useless" – this was an example of an early risk assessment. Railway accidents of the 19th century were what traffic accidents are for us today.

In addition to the many who were killed and seriously injured in rail accidents a far greater number were disabled by inexplicable persistent symptoms that often followed seemingly harmless collisions. Even the smallest jolt or collision produced symptoms although seldom were there any demonstrated signs of injury but the victims were left weak and paralysed. The injured sued the railway companies for compensation and doctors set out to produce the necessary explanations for their symptoms and labelled this condition "Railway Spine".

Symptoms that were ascribed to Railway Spine could consist of any of the following: memory impairment, poor concentration, sleep disturbance, anxiety, irritability, back stiffness and pain, , headache, hearing problems, numbness of extremities, arms and hands pain. Several mechanisms were postulated to account for this condition including, "spinal irritation", "chronic spinal neuralgia", "rheumatism", "fibrositis", "traumatic neurasthenia", "hysteria and chronic hysteria" and "traumatic neurosis". Some of these terms are still familiar today.

So serious did this epidemic become that finally an international conference was convened in Vienna in 1886 of experts in the field to look into this problem. The subject was hotly debated. From the two opposing views firstly that the individual was malingering and the other that the spine was chronically damaged developed a third theory of traumatic neurosis or hysteria to become known as "conversion disorder" today.

Interestingly after decades of quiescence history repeats itself with a similar debate regarding the nature of "whiplash injury" following road traffic accidents. Symptoms of this condition will also include, pain and stiffness of the neck extending to the head and shoulders, headache, numbness or tingling in the arms extending to the hands, dizziness, mental problems such as poor concentration and performance, tiredness, blurred vision and ringing in ears.

The concept of traumatic neurosis that solved the Railway spine dilemma accepted that the patients had genuine symptoms but not that this was caused by chronic damage. With both conditions this understanding has contributed to defining some of the aspects of post-traumatic stress disorders.

