

The functionality of dysfunction

The old saying holds that there are only two certainties in life: death and taxes. This can be accurately expanded to include: adaptation.

We adapt from the cradle to the grave. We adapt to both internal and external forces as we grow, mature, develop and interact with our close and larger environments. We adapt physically, chemically and emotionally/psychologically throughout life. It was Selye who identified adaptation as the feature that characterises our development, and mal-adaptation as the feature that characterises our eventual failure to adapt adequately, leading to collapse – in response to the stresses of life. He noted that anything that makes a demand for adaptation could be labelled as 'stress'. Stress in this context can be seen as being potentially beneficial, and only harmful when the demands it makes cannot be met. Since all therapeutic endeavours – ranging from manipulation to dietary change, medication to insertion of an acupuncture needle – make demands for adaptation, all therapy is axiomatically a form of stress. Whether outcomes are beneficial or harmful ultimately depends on the interaction between the stress demand and the abilities of the individual to respond (Selye 1976).

If an individual, with his/her unique inborn biochemical, psychological and structural

attributes and characteristics is unable to appropriately compensate for, and adapt to, the stresses of life (pollution, deficiency, toxicity, structural and psychological demands, etc.), symptoms appear. And when adaptation processes are in action, symptoms are also apparent. Some symptoms represent a failure to adapt, and some represent adaptation in action. The healing process is itself a process of adaptation to the dysfunction/illness, which is itself an example of a failure of the organism to adequately adapt to current adaptive demands, with symptoms simply being the signposts indicating where the adaptation process is at any given time.

Can dysfunction be functional? Are there times when apparent musculoskeletal dysfunction represent changes, which are, in fact, potentially or actually beneficial?

Can painful spasm be protective? Undoubtedly. Without it the area would be moved, and frank tissue damage might occur, for example in the case of an imminent disc rupture, or of a fragile osteoporotic spinal joint. This does not mean that all spasm, or all pain, is helpful/protective, but that in some instances they certainly appear to be.

Could hypertonicity sometimes be a useful adaptive response, where increased tone is required to stabilise a region? Without question. Take for example the paraspinal tissues of a hypermobile individual. This does not make all hypertonicity useful, but suggests that at times it may be,

and should be respected. In both the spasm and the hypertonicity examples therapeutic attention should ideally focus on offering other ways of supporting the structures requiring protection, so easing the need for these often painful and limiting protective responses.

Could a trigger point, producing as it does increased tone in the muscle housing it, as well as in tissues to which pain is being referred, be offering an energy-efficient way of protecting a vulnerable joint? It would seem highly probable. Take for example a hamstring trigger point creating increased tone in that muscle group, and by doing so placing additional load on the sacro-tuberous ligament, so protecting a vulnerable sacro-iliac joint from excessive movement. Since trigger points are outside of neurological control, with the phenomenon being chemically mediated, this makes this mechanism super-efficient in terms of energy usage. Even if this functional example of an apparent dysfunction (a useful trigger point) is valid, it does not mean that all trigger points are helpful and undeserving of therapeutic attention, since some may be residual entities, left over from past stresses, unable to resolve, while newly developed trigger points are commonly the inevitable result of the effects of already active trigger points (Simons et al. 1999). It does, however, mean that there may be situations where trigger points serve useful roles, where therapeutic input

should be toward removal of the need for their presence, rather than deactivating them without thought as to what defence processes they may be involved in.

Might the responses of the tissues of the body to overuse, misuse, and abuse often be both predictable and appropriate – often with pain and inflammation as the end result? Many of these responses are well recognised to be essential aspects of the recovery and healing processes, to be interrupted only if clinically essential. Where would we be without spasm and inflammation? Almost certainly we would be moving and using areas that are in need of immobilisation, so that repair processes can progress. Where would we be without pain? Undoubtedly, we would be actively employing tissues and structures that should not be used. But while it is standard practice to rest inflamed and damaged tissues in their early healing stages, following trauma or surgery, a similar degree of recognition is not always offered to

features of self-repair/defence such as spasm, hypertonicity and trigger point activity.

Moving away from musculoskeletal health to general health, it takes little thought to recognise that a fever is life saving when a person is infected. It requires little imagination to conceive that vomiting and diarrhoea can save a life when a person has food poisoning. Many symptoms therefore clearly represent health enhancing processes, albeit uncomfortable ones, in action.

The random selection of symptoms listed above represent only a fraction of beneficial responses on the part of the defence and repair mechanisms of the body, that we classify as ‘symptoms’. And yet health-care providers, over-the-counter retailers, and the majority of the population spend inordinate amounts of time, money and effort trying to remove or modify these signs and symptoms of adaptation, recovery and repair.

To be sure there are times when symptoms are extremely unpleasant, and in some instances life threatening. At such times, it makes sense to attempt to modify, modulate and/or ease the intensity of the symptoms. At other times it makes more sense to focus on why the symptom exists, and to aim to remove or modify what causes can be removed or modified, and/or to enhance the adaptive capacities of the body (rehabilitation training, re-education in use patterns, etc.) – as well, perhaps, when appropriate and helpful, to focus attention on the signals the body is sending, the symptoms on display.

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REFERENCES

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