Association for the Treatment of
NEUROPLASTIC SYMPTOMS

HOW TO TALK TO YOUR PATIENTS ABOUT NEUROPLASTIC SYMPTOMS

As healthcare professionals, we are often disappointed and discouraged by the treatment outcomes of patients with chronic non-structural pain, medically unexplained symptoms, chronic functional syndromes, and those who fail to respond as expected to treatment.

However, by using straightforward concepts, pain or illness linked to psychosocial stress (neuroplastic symptoms or NS) can be transformed from among the most frustrating conditions to among the most rewarding because of far better results for patients. Often only a subset of the ideas outlined below are needed for mutual trust and cooperation to open the door to healing. (For simplicity, this guide will use chronic pain as its example, but the information applies equally to stress-related non-pain symptoms.)

1. **Listen and Empathize**
   A. Listen to the patient's story and allow them to finish before asking questions. Studies show most patients will speak only for 2-3 minutes and highly useful information often is mentioned only at the conclusion.
   B. Empathize and demonstrate understanding of their pain (or other symptoms), both physical and emotional.
   C. Ask about prior treatments and sympathize with lack of efficacy.
   D. Assess for current life stresses, ability to take time for self-care and enjoyment, a past history of Adverse Childhood Experiences (ACEs), any history of a traumatic event, and symptoms associated with depression or an anxiety disorder.

2. ***Affirm*** The Patient's Experience of Pain
    A. "Have you been told that your pain is not real?"
    B. "All Pain is Real. There is no such thing as imaginary pain."
    C. Allow time for and non-judgmental acceptance of sadness, anger, and other emotional expression.

3. ***Explain*** the Nerve Pathway Model of Chronic Pain
    A. If a patient wants a name for their condition, we use *Neuroplastic Symptoms*, which simply means generated by the brain and nervous system but with capacity for change.
    B. Explain that recent research shows that most long-term pain is not caused by organ disease or structural damage. Instead it results from altered nerve pathways in the brain, analogous to phantom limb pain after amputation. Fortunately, techniques exist for shifting these pathways so that symptoms are alleviated (see *Resources* below).
    C. A nerve pathway consists of a network in the brain that enables action by the body. Examples of nerve pathway actions include riding a bicycle, walking, chewing, signing one's name, and simple addition and multiplication.
    D. Pain and associated symptoms, such as anxiety, depression, fatigue, and insomnia also can be caused by nerve pathways.
    E. When a bodily injury occurs, signals are received by many parts of the brain, including sensory, emotional and danger assessment areas. These areas interact with memory centers to determine if you are in danger.
    F. If danger is perceived by the brain, then nerves are activated to produce a physical response. which serves to protect you from further danger. This physical response could come in the form of muscle tension or contraction, elevated heart rate, inflammation, anxiety, pain and many other other changes.
    G. This activation of an acute pain nerve pathway will be remembered, probably indefinitely, and can later be re-activated by a variety of triggers (e.g. the sound of a helicopter overhead triggering the pain of an old shrapnel wound). This is how the brain "learns" to keep us safe and teaches us to seek safety.

4. ***Explain*** how Nerve Pathways can be altered by life events
    A. Studies have shown that the pain pathways and the danger signal in the brain can be activated not only by acute physical injury, but also by memories of past physical or emotional traumas, perceived threats, and even imagined threats.
    B. Adverse Childhood Experiences can also create fear and danger pathways that are remembered.
    C. Repeated stressful events, especially if similar to early traumas, can further activate danger pathways leading to the development of neuroplastic symptoms.
    D. These symptoms can become persistent if they are repeatedly reinforced over time.
    E. Fear of pain and attention to the pain keep the danger signal turned on and lead to pain

       exacerbation resulting in a vicious self-reinforcing cycle of pain-fear-attention-pain.
    F. New symptoms can emerge over time due to this cycle or the experience of new stressful situations, which can include either physical or emotional traumas.
    G. Fortunately, the brain can learn to deactivate these pain pathways. (see *Resources* below.)

5. ***Normalize*** the experience of a neuroplastic reaction
    A. Neuroplastic reactions are “normal, human responses to stress.” Everyone experiences these from time to time. Give examples of your face turning red when embarrassed or getting 'butterflies' or other GI symptoms when in a tense situation.
    B. For some people, this normal human reaction can become severe and disabling.

6. ***Explain*** the connection between emotional stress and pain
    A. Unresolved negative emotions (anger, fear, shame, grief, guilt) are major factors in producing chronic pain and other stress-related conditions. These emotions occur in our subconscious–we are not necessarily aware of or in control of them, like dreams.

       Often, we suppress our most painful thoughts and emotions because they are unacceptable to us or others. Once suppressed in our subconscious, physical pain or other symptoms can develop. Once the pain develops, our reactions

of fear and anxiety can worsen the pain resulting in a vicious cycle of more pain, fear, attention and decreased function.

B. Emotional stress can play a role in exacerbating pain because the brain responds to emotional injury the same way it responds to physical injury. This is with fear and activation of the danger signal.
C. A common source of suppressed emotions is Adverse Childhood Experiences (ACEs). A good question to help patients connect with suppressed emotions linked to their past is: “How would you feel if you learned that a child you care about was experiencing everything you did as a child?”
D. Fundamentally, chronic pain is caused by *perceived danger* in the brain. When the danger signal is turned off, the pain will decrease and often resolve completely.
E. Particularly for non-pain symptoms and pain in the skull, chest, abdomen and pelvis, recognition and verbal expression of previously suppressed emotions often is a key to improvement.

7. **Provide Hope**
    A. Let patients know that chronic pain can be deactivated.
    B. Present the neuroplastic symptom (NS) diagnosis in a positive light - “Your body is not broken, the symptom is not life threatening, and it is treatable without medication or surgery. This is a good diagnosis to have.”
    C. The healing trajectory varies considerably depending on individual ability to turn off the danger signal or verbalize repressed emotions. Relief can take a day or months or, less commonly, it can take years.
    D. Highlight qualities the patient already possesses that will contribute to recovery - determination, persistence, intelligence, a past history of overcoming adversity…..
    E. Point out that recovering from chronic pain often leads to more happiness than the patient ever experienced before because they will be undoing harmful thoughts, emotions and behaviors. Life will be far better and much less stressful on the other side! The patient will no longer be a ship without a sail being tossed and turned by life’s inevitable stressors. They can learn to be in control; they can find their sail.
    F. PPD patients will look to you for confidence and hope. You can significantly improve their outcomes with a supportive attitude that persuades them you are solidly on their team and anticipating their recovery.

8. **Provide Resources**

A.Many excellent evidence-based resources can be found at www.Neuroplastic.org including videos, courses, recommended books and apps, regular online Q&As and much more.