

## **HOW NEUROTRANSMITTER-RECEPTOR SYSTEMS (NRS) RELIEVE PAIN**

### ***Part 1- of a 5-part series***

One of the marvelous research breakthroughs involving severe pain is that the central nervous system (CNS) has what are called “neurotransmitter-receptor systems or (NRS).” Some of these systems specifically control pain.

All persons with IPS and the medical practitioners who treat it, MUST know how these systems function as they must be fostered and enhanced for a person with IPS to attain any relief and recovery. For example, opioid drugs relieve pain by activating, or substituting for the neurotransmitter, endorphin, which then triggers the other action site called a “receptor.” The fact is that any drug, natural or synthetic, prescribed, or non-prescribed, that relieves the pain of IPS is stimulating one or more NRS in the CNS.

### **TOO TECHNICAL TO LEARN?**

No. The term “neurotransmitter” may sound long, complex, and only to be used by high-powered professionals, but this is not the case! NRS, now that we fully understand them, are simple mechanisms that MUST, and CAN be understood by anyone with average intelligence.

Medical science has marched forward, given us some new terms, and has provided us with the ability to greatly improve the treatment of IPS. NRS are the key!

### **WHAT ARE NEUROTRANSMITTERS AND RECEPTORS?**

Neurotransmitters are chemicals in the nervous system that transmit electrical currents to carry out the various functions of the nervous system. Each neurotransmitter carries out specific functions which are essential to pain patients and include not only pain control, but sleep, energy, motivation, memory, control of spasms, and muscle jerks. Receptors were so named because they “receive” a neurotransmitter. They are triggered or activated to relieve pain and do other actions. Don’t let the words “neurotransmitter” or “receptor” intimidate you. It’s simple. Pain relief and other positive actions are caused by a chemical that stimulates a specific trigger point.

### **THE GOOD NEWS ABOUT NEUROTRANSMITTERS AND RECEPTORS**

Both neurotransmitters and receptors can be energized or enhanced. How is this done? Neurotransmitters are chemicals made by our bodies from the amino acids in our food. Receptors are comprised of ball shapes of amino acids made from our food. One major manipulation of a NRS in the CNS is ingesting a neurotransmitter substitute, in the form of a drug. Readers of our chronicles are familiar with opioids which substitute for endorphin, gabapentin which substitutes for GABA, and Adderall® which substitutes for dopamine. New research is not only identifying more drugs to substitute for neurotransmitters but has also found ways to increase the natural levels of neurotransmitters, which increases the power of receptors. A brand-new area of research is in the enhancement and healing of damaged receptors.

***In summary: In order for IPS patients to find some additional relief and recovery, they must employ measures to enhance their NRS.***

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