



## WHY IMPLANTED STIMULATORS AND INTRATHECAL PUMPS QUIT WORKING

Other than a mechanical or technical failure, there are three situations that may cause an implanted electrical stimulator or intrathecal infusion pump to cease adequate pain relief. The situations are described below.

### **Situation No. 1: Hormone Deficiencies**

Constant pain and opioids suppress hormones that are essential for pain relief. Some hormones actually work in partnership with receptor sites to provide pain relief. You will need a blood test for cortisol, pregnenolone, DHEA, and testosterone. Replacement will be necessary for any that are low.

### **Situation No. 2: Inflammation Out of Control**

Electrical stimulation and opioids don't control the inflammation or autoimmunity of adhesive arachnoiditis. It may be that your basic cause of pain has worsened.

### **Situation No. 3:**

Both constant electrical stimulation of neurons and opioid stimulation of receptors may produce such tolerance so that they no longer relieve pain. Alternate pain relief measures will be necessary.

### **Key Note**

In **every** case of adhesive arachnoiditis (AA) in which stimulators and pumps have quit working, the patient was not on the complete 3-component medical protocol. Patients had often been falsely told that their pump or stimulator was the treatment for AA. This is not true. Stimulators and pumps don't treat AA. They symptomatically relieve pain which is, of course, essential but these measures do not stop progression of AA. AA is a chronic inflammatory, autoimmune disease. Be advised. Pain clinics usually won't test for hormones or treat the cause of pain. You will need a medical practitioner who will help you treat and control the disease of AA.

**Summary:** Persons with implanted stimulators and opioid pumps need to periodically have their hormones checked and have an effective, ongoing anti-inflammatory/autoimmunity program and not totally rely on their stimulator or pump to provide good pain relief.

Reference: Thompson SJ, et al. Chronic neuropathic pain reduces opioid receptor availability with associated anhedonia in rat. *Pain* 2018;59:1856-1866.