

*excerpt from eMedicine.com*

Low back pain (LBP) remains a common musculoskeletal complaint, with a reported lifetime incidence of 60-90%. Various structures have been incriminated as possible sources of chronic LBP, including the posterior longitudinal ligament, dorsal root ganglia, dura, annular fibers, muscles of the lumbar spine and the facet joints. Degenerative spondylosis is caused by facet degeneration accompanied by disk degeneration most commonly at the level of L4-L5. Mechanical LBP is the third most common cause of disability; degeneration is universal to structures that comprise the functional spinal unit, comprised of 2 adjacent vertebral bodies and the intervertebral disk.

- Pain is located in the low back and posterior thighs. Symptoms are often chronic and progressive. Pelvic rocking and sustained hip flexion usually reproduce the patient's low lumbar and buttock symptoms. Facet joint pains are lateralized and can radiate below the knee.
- Obesity may produce excess load to the low lumbar intervertebral disks.
- Palpation of the lumbar paraspinals and spine stabilizers may elicit tenderness, or be in reactive muscle spasm.
- Hips, knees, and ankles should have full ROM. Lumbar ROM should be assessed in flexion, extension, lateral bending, and rotation.
- Neurologic examination, with intact pinprick sensation throughout all dermatomes, full muscle strength throughout all myotomes, and symmetric muscle stretch reflexes, are associated with diskogenic disease.
- Gait usually is normal.

### *Integrated Treatment Plan (Chronic)*

**Frequency: 2-3 visits/week**

Treatment approach is driven by the area of complaint and associated symptoms of pain and functional limitations. Therapists must determine diagnosis and overall treatment plan based upon patient observation and clinical judgment. Cervical complaints are most often chronic and the recommended frequency of treatment is 2-3 visits/week initially until function improves. Standard functional activities should be included, perform activities while the 5002 electrode or the Flexible Array is attached to the patient.

**CPT Codes:** 97110/97530-Therapeutic procedure/activities; 97112-Neuromuscular reeducation; 97535-Self-care/home management; 97032- Attended Interactive neurostimulation

Refer to InterX Training Guides for further treatment frequency, duration and stimulation setting guidelines. Treatment approach will be modified for acute conditions.

### *Interactive Therapy BASICS*

- Record patient history relating to the complaint, specifically seeking complicating and/or related chronic factors
- Stimulation intensity should remain **COMFORTABLY** strong
- **Vary the stimulation setting** throughout the Treatment Plan
- Pain AND **AS** will present in different locations throughout treatment and visits --- **follow the patient and body responses**

**AS** Low impedance  
"Active Sites"

**SCAN → TARGET → DYNAMIC**

### *Functional Measurement Tools*

The following measurement tools can be used to objectively demonstrate functional improvements in patient status and will enhance documentation requirements to support communication and reimbursement efforts.

Oswestry Low Back Disability  
SF-36 or Short form

OPTIMAL (APTA)  
Brief Pain Questionnaire w/ Function

### *Similar or Related Conditions*




Lumbar degenerative disc disease,  
Lumbar spondylosis  
Arthritis


Low back pain,  
Internal disk disruption syndrome  
Lumbar strain

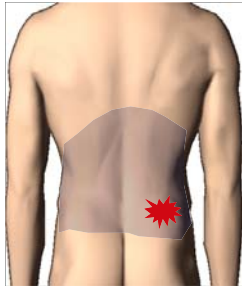
Facet joint syndrome  
Herniated disc  
Sciatica pain



## InterX 5002 Protocol

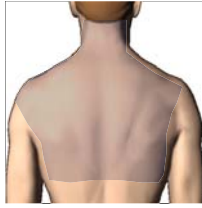
**Setting:**  60  240\*   
**Duration:** 20 minutes

- 1 10 min** Slowly **SCAN** lumbo-sacral region related to complaint of pain and/or dysfunction. Notice the **SCAN** area is larger than the area of complaint, it is important to **SCAN** a large enough area to identify significant "Active" sites. (AR  value, drag, sound, patient sensation, redness)

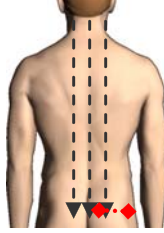


Lumbo-sacral Region

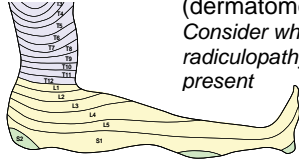
**SCAN Options** Vary **SCAN** area based upon treatment response and patient report at each visit



Cervico-thoracic Region  
AS are often observed in this highly related area

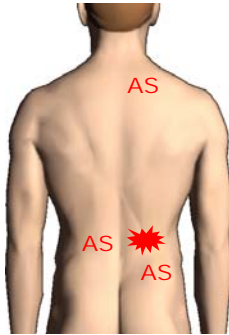


Spinal Root - InterX stimulation may be applied directly over the spine



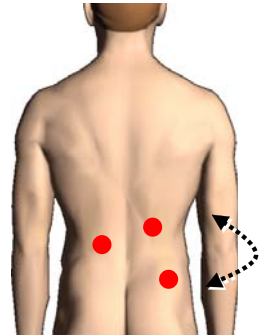
Nerve pathway (dermatome)  
Consider when radiculopathy is present

- 2 5 min** **TARGET** "Active" Sites  
Typically the body will respond more strongly at 3-5 sites  
Focus on areas with greatest response.  
Point-stim and then 4 directions.







- 3 5 min** **DYNAMIC**  
**Setting:**  90-360   30-120

Direct patient through **range of motion and functional activities** observing the kinesthetic and nerve pathway(s) which elicit the pain and/or dysfunction.  
Treat any elicited points of discomfort (●) for 30 seconds and then re-test. Continue for 5 minutes total.



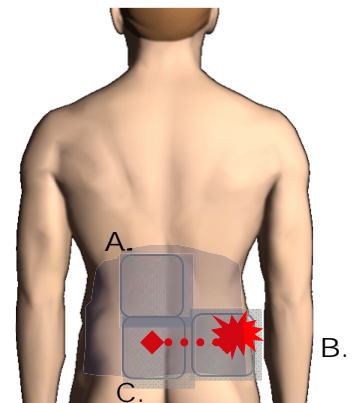
## Flexible Array Protocol

**Scan setting**  60  240\*   
**Flex Array :**  Cyc 2   Cyc3  
**Duration:** 20-30 minutes




- 1 5 min** **SCAN** lumbo-sacral region as described. Identify primary "Active" sites for further treatment based upon greatest complaint or response to stimulation at rest or movement

- 2 20 min** InterX with the Flexible Array provides the ability to complete **TARGET & DYNAMIC** at the same time. Select one or two Flexible Array placements based upon therapy activities to be completed. Flexible Array can be used while performing exercise or therapist guided activities and/or interventions per the treatment plan.  
Recommended Flexible Array placements:

- A. Primary "Active" Sites identified during **SCAN**
- B. Primary **point of pain** at rest or functional activities
- C. Spinal root related to primary pain



*Note: Secondary sites within the **SCAN** area that are related to the pain or limitation of function may also be treated.*

- 3 5 min** **Finish** treated area(s) in **Setting:**  30-120. Slide the InterX 5002 electrodes in four directions  over the area treated under the Flexible Array. Finish  other key points where the patient reports continued pain or limitations.

**SCAN → TARGET → DYNAMIC**