



# Pearls

## Pearls: Patient-generated Pain Drawings

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The patient-generated pain drawing is an inexpensive and practical tool for differential diagnosis of the source of pain in spinal disorders. For the patient, the pain drawing quickly communicates to the physician the location and severity of his or her pain. For physicians, the pain drawing is a window into a patient's physical pain and psychological state.

Spine pain, lower back pain, lumbar radiculopathy, neurogenic versus vascular claudication of the lower

extremities, neck pain with or without cervical radiculopathy, myelopathy, symptomatic hip disease, carpal tunnel syndrome, as well as neuropathic and psychogenic generalized pain syndromes can be recognized using the patient-generated pain drawing [1, 3–5] (Fig. 1). The pain drawing can also help the diagnostician identify less-common diagnoses like shoulder-hand syndrome and complex regional pain disorder, as well as help distinguish between conditions that can occur simultaneously such as lumbar spinal stenosis and osteoarthritis of the hip.

At our facility, we have each patient complete a standard patient-generated pain drawing on the first visit and at all subsequent followup visits. A clinic attendant instructs the patient on how to complete the drawing prior to being seen by the clinician. Particular emphasis is made on familiarizing the

patient to the orientation of the front and back and right and left of the human silhouettes on the pain drawing. Despite specific oral instructions (in addition to the written instructions on the form), patients sometimes confuse the right from the left side of the human silhouette illustrated on the pain drawing. If this happens, we help them to fill out a new drawing, to ensure the pain symbols accurately reflect the location(s) of their pain.

It is important to correlate the pain drawing with imaging studies. For example, the patient who notes right leg pain on the patient-generated pain drawing who has a symptomatic right L5-S1 herniated disc and an asymptomatic left L4-5 herniated disc on MRI, a scenario that is not uncommon, can accurately be documented as a warning in the record thus avoiding wrong diagnosis and wrong-site treatment.

The patient who presents with “no relief of pain” on one side during followup, but forgets that the original pain was on the opposite side of the current complaint, can easily be confirmed by comparing a new pain drawing with the original. For the clinician, this could be a potential warning that a new problem has occurred since the initial diagnosis.

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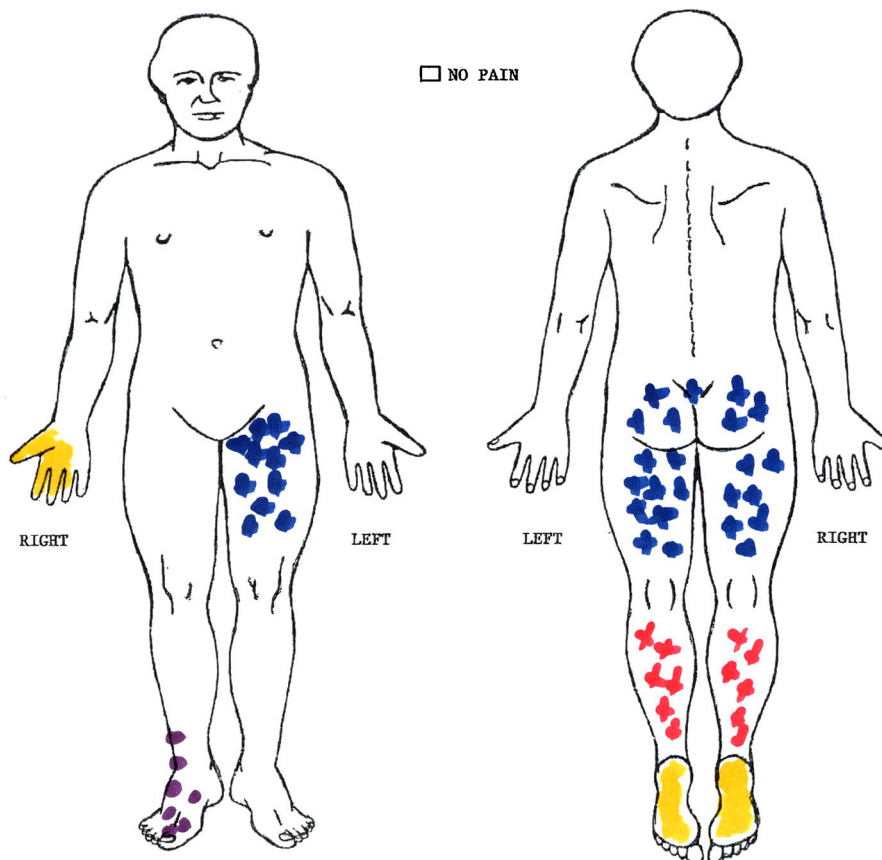
# Pearls

Name: \_\_\_\_\_ Do you understand English? Yes No  
 If not what language do you speak? \_\_\_\_\_  
 Date: \_\_\_\_\_ Who filled out this form?  
 Patient (Me) \_\_\_\_\_ Other \_\_\_\_\_

Please fill out the pain drawing. This will tell us where your pain is now and something about it.

Using the appropriate color and symbol, mark the areas on your body where you feel the pain.

Numbness--- (yellow) Pins & Needles 000 (purple) Burning xxx (red) Aching +++ (blue) Stabbing /// (green) Other \*\*\* (brown)



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**Fig. 1** This figure shows a composite pain drawing from several actual patient-generated pain drawings. If this was a patient's actual pain drawing, a physician would likely suspect right carpal tunnel syndrome, lower extremity neurogenic claudication from lumbar spinal stenosis, vascular claudication from peripheral vascular disease, left hip disease, right L5 radiculopathy, and peripheral neuropathy. Patients with multiple comorbidities will present with pain drawings similar to this. The color coding helps distinguish the symbols, such as red for burning and blue for aching, as seen in this example.

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Serious disorders such as fibromyalgia, neuropathic pain syndrome, polymyalgia rheumatic, and cervical spinal stenosis with myelopathy can cause generalized body pain, which is generally depicted by pain symbols over the entire front and back silhouettes of the pain drawing (referred to as “global pain”). When confronted with a patient’s pain drawing depicting global pain, the clinician is alerted to obtain a thorough patient history, perform a careful neurological examination, and order appropriate imaging and laboratory studies to rule out a serious underlying disorder.

Although we use standard paper patient-generated drawings at our facility, completing the pain drawing

with a digital tablet containing an application that can seamlessly save and store the patient’s previous drawings in an electronic medical record is an important advancement in pain communication [2]. Though more study is warranted, if novel digital technologies are proven to accurately and securely obtain and quantify patient pain, more orthopaedic practices will likely adopt these tools to help clinicians diagnose patients with painful musculoskeletal disorders.

## References

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