

## **X-Ray Spinal Hardware ~ 6 Hrs Jose Serrano, DC ~ Back To Chiropractic CE Seminars**

**Objective:** To provide a practical review of common orthopedic hardware and its presentation on plain film imaging. Upon completion of the lecture the attendee of the lecture should be able to identify common spinal orthopedic hardware, its purpose, for what conditions it may be used for as well as radiological cues on how to evaluate spinal hardware for possible complications.

**Hour 1:** Reviews of requirements for obtaining and maintaining supervisor's operator's permit in the state of California. Review of regulations and required documentations regarding X-rays in the state of California

**Hour 2:** Review of ACR guidelines on when advanced imaging should be considered based on clinical presentation and X-ray findings. The risk and benefits of ordering advanced imaging will be discussed as well as example X-ray cases that require advanced imaging follow-up.

**Hour 3:** Presentation of X-ray imaging of common spinal surgical instrumentation. Discussion of conditions that may lead to spinal procedures such as decompression, fixation, disc surgery, and vertebroplasty/kyphoplasty. Its indications and complications will be discussed.

**Hour 4:** Presentation and discussion of specific spinal hardware and it X-ray presentation to include:

- Surgical screws
- Surgical Plates
- Disc Prostheses
- X-stop device.
- Fusion grafts & cage devices.
- Scoliosis hardware and indications
- Kyphoplasty/Vertebroplasty indications, procedures and presentation on X-ray imaging.

**Hour 5:** Continuation of Presentation and discussion of specific spinal hardware and it X-ray presentation to include:

- Fusion grafts & cage devices.
- Scoliosis hardware and indications
- Kyphoplasty/Vertebroplasty indications, procedures and presentation on X-ray imaging.

**Hour 6:** Case presentation of different conditions (trauma, neoplasm, infections degenerating) leading to treatment by one or more of the surgical hardware previously presented with an emphasis on identifying the various hardware, it purpose and evaluation of possible signs of hardware failure/instability.