

## Principles of Ultrasound in Pain Management

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Ultrasound has become an indispensable tool for clinicians in recent decades. A centuries-old maxim that says 'in a nation of the blinds, a one-eyed man is king', very nearly summarises the ultrasonography role in diagnostic and therapeutic medicine.

Insonation of tissues, surrounding vital structures such as nerves and vessels as well as diagnostic features of particular conditions, to name a few, are undeniable advantage of using ultrasound guidance in pain assessment, examination and intervention. In some intervention, ultrasound guidance has become gold standard in safety and treatment efficacy, one such example is stellate ganglion block.

Current recommendations for proficiency and training are based on pain physicians' scope of practice and difficulty level of procedural interventions. A certain set of proficiency skills is to be acquired by the physician in order to perform any recommended procedures. These range from understanding basic operational system of ultrasound, image optimization and interpretation of sonoanatomy, as well as attaining skills at needle-probe interactions.

Further reading:

1. Narouze, S. N., et al. (2012). "The American Society of Regional Anesthesia and Pain Medicine, the European Society of Regional Anaesthesia and Pain Therapy, and the Asian Australasian Federation of Pain Societies Joint Committee recommendations for education and training in ultrasound-guided interventional pain procedures." *Reg Anesth Pain Med* 37(6): 657-664.
2. Gofeld, M. (2008). "Ultrasonography in pain medicine: a critical review." *Pain Pract* 8(4): 226-240.