



Real-Time Relief

The advantages of ultrasound-guided injections

When a patient came to Lindsey Sweat, M.D. complaining of back pain, she wanted to investigate further. “The patient’s previous diagnosis said the problem was in his back. Since back pain is a complicated issue, I suspected his hip might be involved,” says Dr. Sweat, a family medicine and sports medicine physician with Southeast Georgia Physician Associates—Primary Care in Camden.

Relying on her medical intuition, Dr. Sweat used an innovative ultrasound-guided injection therapy that can diagnose and treat the patient at the same time. Her suspicion was confirmed: the pain originated from the patient’s hip, not his back. She administered a pain-relieving steroid injection, then asked the patient to walk around so his body could assimilate the medicine. When she returned a few minutes later, “He was bending down to tie his shoelaces. He looked at me and said, ‘I haven’t done that in months. I may race you out of here!’”

Understanding ultrasound

Like a sonogram, ultrasound-guided injections use high-frequency sound waves to produce real-time, dynamic images of the body. The injections themselves are similar to a regular shot, except that a special gel is applied to the patient’s skin beforehand. The gel creates a bond between the skin and an ultrasound probe that’s placed near the painful area. The ultrasound produces clear images that allow Dr. Sweat to evaluate the originating source of the pain. “Ultrasound lets me look at the soft tissues, muscles and tendons and into deep, bony joints in the hip, shoulder and sacroiliac joint. It’s also useful in the wrists and fingers.”

After pinpointing the problem, Dr. Sweat injects medication with a regular needle and syringe. Ultrasound images allow her to guide the needle as it enters the body. In this way, she focuses the medication precisely where it’s needed, avoiding tendons, nerves and blood vessels. “Ultrasound allows me to diagnostically evaluate the suspected problem areas by knowing exactly where I am injecting.”

What conditions does it treat?

Ultrasound-guided injection therapy benefits people with inflammatory or degenerative conditions such as:

- Osteoarthritis
- Rheumatoid arthritis
- Labral tears
- Muscle tears
- Ligament tears
- Tendonopathies

Older people who aren’t candidates for surgery benefit from ultrasound-guided injections, as do individuals whose activity is limited by pain. “If you’re in too much pain to exercise or do physical therapy, you become weak and may gain weight, which causes further strain and pain. Ultrasound-guided injection therapy breaks that cycle, allowing the patient to move more and lose weight. I frequently order physical therapy in combination with injections,” says Dr. Sweat.

How fast does it work?

Most patients experience the same quick relief as Dr. Sweat’s patient did, and most are pain-free for three months. “The pain-free duration depends on the patient’s situation. For someone who is a good surgical candidate, we may only repeat the injection once or twice and refer for more definitive/permanent management. If someone is a poor surgical candidate, we can do the injections as long as it works, with no designated endpoint. There are also longer-acting medications,” says Dr. Sweat.

Depending on the situation, Dr. Sweat may use corticosteroids, hyaluronic acid (joint lubricants) or stem cell and platelet-rich plasma (PRP) therapies. Most insurances cover steroid and hyaluronic acid injections, but not stem cell or PRP therapies.

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What are the risks?

Ultrasound-guided injections have been used for more than a decade with minimal complications. Though rare, risks are the same as with any injection: bleeding, infection, damage to surrounding tissue and incomplete pain relief. However, thanks to ultrasound guidance, there are fewer risks than with regular injections. Since every procedure and medication has potential side effects, patients should discuss their medical history and allergies with their doctor before treatment.

Benefits of ultrasound-guided injections

Better injection accuracy. Blind injections done without imaging are not as precise as those done with ultrasound.

Ability to identify fluid. Compared to conventional diagnostic tools, ultrasound is better at identifying fluid that accumulates in and around the joints and soft tissues.

Real-time feedback. With ultrasound imaging, both the doctor and patient can watch as the treatment is administered. The patient can provide feedback about pain levels, and the doctor can deliver the medicine exactly where it needs to be.

No radiation exposure. Unlike CT scan-guided injections and fluoroscopy X-rays, ultrasound technology doesn’t use radiation.

Lower cost. Ultrasound-guided injections are performed in the doctor’s office and are less expensive than CT scans and fluoroscopy.

Overall, an ultrasound-guided injection is a safe, convenient, cost-effective therapy that reduces pain, improves mobility and helps delay the need for surgery. For people experiencing joint or soft tissue pain, that’s a welcome relief.



Don’t let chronic pain hold you back

To schedule an ultrasound-guided injection consultation with Dr. Sweat, please call **912-882-6767**.