

# Bum Ankle

adapted from Neuro-Orthopedic International Notes  
<http://noinotes.blogspot.com/2009/07/noi-notes-on-art-of-sprained-ankle.html>

**Typical scenario:** Three months (or longer) ago, you twisted and sprained your ankle. You still have recurrent pain and swelling, and the ankle is just not working normally (for example, it may sometimes "give out."). This is so common that many people do not even go to the doctor for it - though they still don't feel like they have recovered.

**What you and the doctor notice:** The ankle is stable, though sensitive. On exam, there may be limitation of the normal range of motion, and it hurts to "plantarflex" (pointing the toe downwards) and "invert" (twist the foot so the sole faces the other foot), especially with the knee straightened. The other foot doesn't have the same response. The bum ankle may have some pitting edema (swelling) not seen on the other foot.

**What is happening:** One of the ankle nerves is currently a little irritated, and is sometimes squeezed by the swollen tissues. The ankle may also have had a sprain (strained/stretched ligaments). An ankle sprain is no insignificant event, and some swelling and pain is normal even months later, as the nervous system is completing the healing process and fixing the final few problems.

We have little sensors in our nerves, muscles, and joints, which report to the brain all the local information about the area's chemicals, pulls, pressures, stresses and temperatures. These sensors send a lot of signals when you get hurt. Then they calm down, when the brain is satisfied that the ankle is OK.

Via these sensors, the whole central nervous system stays aware of the ankle and monitors it, so that all ankle movement may feel sensitive. This is good and normal, and is part of the healing process in a healthy individual.

**What to do:** Support the process of the nerve sensors sending useful information to the nervous system. Do this with active range of motion and sensory exercises (a.k.a. "rehabilitation") about SIX times per day (and about 20 full ranges of motion each session). This would mean before each meal, AND between each meal, for a couple of weeks. Choose from (mix and match) these examples:

**ABCs:** moving only your foot and ankle (not knee or hip), "write" all the letters of the alphabet in the air in front of you. You can do this sitting or standing, while barefoot or in socks.

**Losing your marbles:** Scatter some marbles (or hazelnuts, or any small roundish objects) on a towel or carpet in front of you. Also put down a cup. Standing (you can hold onto a chair or counter) with bare feet, pick them up with your toes and put them in the cup.

**BalanCing aCts** (also known as "graded proprioceptive input"):

- Practice walking on your tiptoes, on your heels, and heel-to-toe along a straight line.
- Consider getting a 2x4 or other narrow board and two cement blocks, or otherwise constructing a balance beam. Walk the beam (barefoot) carefully and mindfully, paying close attention to how you plant your feet. Don't fall!
- Consider getting a "wobble board" (a round board with a ball in the center) - about \$20 at most big-box stores. Start using it while sitting in a chair, and progress until you are able to stand on it.
- Wearing supportive footwear, walk and hike on uneven surfaces - slowly! This is a therapy-meditation walk, not a footrace. Pay careful attention to how you are planting your feet with each step, before you put weight on either ankle.

**What to expect:** The ankle, by sending plenty of healthy signals, is *reconstructing its role in the brain and nervous system* through healthy activity.

You are **not** at risk of re-injury, unless you get wild and fall down, twisting the ankle again. If this happens, the treatment is just the same, with the addition of some RICE (rest, ice, compression bandage, and elevation) for the first few days.

Most ankles will improve in a few days, with normal range of motion restored in perhaps 2 weeks or less.

The brain will listen to what your ankle tells it. Your exercises are likely to cause some increased pain and swelling at first, as the nervous system notices more signals, and seeks more input on which to base its healing actions. These 'flare-ups' will only last a day or so, as the system fine-tunes. Improvements in movement will still be obvious.