Abdominal Cutaneous Nerve Entrapment Syndrome (ACNES)

What is the Abdominal Cutaneous Nerve?
The Abdominal Cutaneous Nerves are the terminal branches of the intercostal nerves after they enter the rectus channel. They emerge lateral to the rectus muscles and provide sensation to the skin over the front of the abdomen.

What causes Abdominal Cutaneous Nerve Entrapment Syndrome?
Abdominal pain is common, but it is usually attributed to internal organs, the abdominal wall musculature, or the skin of the abdomen. Abdominal Cutaneous Nerve Entrapment Syndrome (ACNES) occurs when the nerve supplying the skin over the front of the abdomen gets irritated within the rectus channel. Too much pressure on the nerves within the channel can irritate the nerve and/or compress the blood vessels that supply the nerve. This can be caused by strained fascia, muscle, scar tissue, or increased intraabdominal pressure.
What are the symptoms?
ACNES causes pain or a burning sensation on the front part of your abdomen, and the character of the pain is usually different than the pain that comes from the organs in your abdomen or a muscle strain. It can be worsened by movement and flexing the abdominal muscles and can be relieved by relaxing the abdominal muscles and laying down.

What treatments are available?
ACNES can go away on its own if there is a stop to the nerve irritation, but oftentimes this condition can last a long time and treatment may be necessary to get back to normal life. It can be treated with neuroleptic medications such as gabapentin. This can help treat the pain, but it will not stop the irritation of the nerve, and some people have difficulty tolerating the side-effects. The pain can be stopped temporarily with injection of a long-acting anesthetic. This may be a good option if the pain recently started, and you are expecting it to go away soon. Corticosteroid injections can decrease inflammation of the nerve and the tissue around nerve to relieve pressure and may be a curative treatment, but corticosteroids often have adverse side-effects. Nerve hydrodissection is a procedure where a solution of dextrose and numbing medications are injected around the nerve to calm the nerve down and physically break up/dissect any adhesions. Neural therapy is a procedure where the superficial branches of the nerve are treated to calm down an overactive nerve. Another treatment that works well is Osteopathic Manipulative Treatment (OMT), a hands-on treatment that helps remove restrictions on the nerve and its surrounding fascia. All of these treatments can be curative and we have had good success with them at Motion is Medicine. The most invasive approach is to surgically remove the nerves in what is called an “anterior neurectomy.” This is curative, but you will lose sensation to the skin of the area that the nerve was supplying.