

University of Tennessee College of Veterinary Medicine

Collagen Injections for Urinary Incontinence

What is urinary incontinence?

Urinary incontinence refers to leaving puddles of urine where a dog or cat sleeps. During the day, the dog or cat can hold their urine and urinate normally; however, when they relax or fall asleep, urine leaks out. Most commonly, this occurs in older spayed female dogs and is often referred to as ‘spay incontinence’, ‘hormonally-responsive incontinence’, or ‘urethral sphincter mechanism incompetency (USMI)’. In male and female cats and in male dogs, usually there is a more serious underlying cause for the urinary incontinence.

There are several treatments available for urinary incontinence. Medically, estrogen or phenylpropanolamine can be used individually or together in spayed female dogs, and 50-85% respond. For those that do not respond, there are surgical procedures that can be tried; however, complication rates are high and restoring continence is low.

How do collagen injections work for urinary incontinence?

Collagen (glutaraldehyde cross-linked bovine collagen) is a substance that is injected under the lining of the urethra just beyond where it connects to the urinary bladder. Collagen ‘bulks’ the area increasing the pressure at this part of the urethra, which is important for urinary continence. Additionally, collagen stimulates new blood vessel growth into the area and some scar tissue formation.

Collagen injections provide over 90% success rate with an average of 18 months of continence; dogs are usually continent within a couple of days of the procedure. It is not a permanent cure; however, some dogs can be continent for up to 5 years with 1 treatment. Reported response rates to collagen injections in dogs are 65% continence at 18 months, 38% continence with medication, and 7% experiencing no benefit. Collagen injections can be repeated, if necessary.

Collagen injections are safe and reported complications include irritation from performing cystoscopy, possible urinary tract infections, and lack of response to the injections.

Who can undergo collagen injections for urinary incontinence?

Eligibility:

1. Female cats and dogs greater than approximately 5 lbs. that have failed medical treatment for urinary incontinence, that do not have other serious health issues, and that do not have a urinary tract infection

What is required to perform collagen injections for urinary incontinence?

Workup Checklist:

1. Abdominal radiographs taken within the last 3 months
2. CBC, blood work, and urinalysis performed no later than 2-4 weeks prior to procedure; a urine culture is recommended
3. The patient should be fasted (no food) after 10 pm the night before the day of procedure; water can be given.

