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# TRANS-CERVICAL INSEMINATION

## What is TCI?

Trans-cervical insemination is a method to deliver sperm directly into the uterus, bypassing the cervix. The advantage is the same as the surgical intrauterine method of insemination (commonly called an implant). Most of the sperm may not penetrate the cervix after a routine vaginal insemination—this can be especially true for frozen or chilled semen, or in cases of bitch or stud dog decreased fertility.

## How is TCI performed?

Bitches are inseminated in a standing position without sedation. The owner is encouraged to hold the bitch and observe the procedure. We can use a video display to visualize the procedure. The procedure is painless and usually takes 15-30 minutes.

## Planning a TCI

It is ideal to set up a consultation appointment in advance of the date for TCI (i.e., prebreeding exam either before estrus or at the beginning of the cycle). If this is a repeat breeding, or a prior consultation is not possible, please communicate with either me or Kristin prior to scheduling this appointment. Our goal is to inseminate twice by TCI within 24-48 hours. The decision of when to perform TCI is based on ovulation timing (see my ovulation timing handout/progesterone testing). I will come in to do TCI when needed, on my days off, if arranged with me in advance.

## Procedure for Chilled Semen TCI

If shipping chilled semen, please indicate to the stud dog owner that we need the semen to be centrifuged after collection (gentle centrifugation at urine setting). The extraneous seminal fluids are discarded and the sperm pellet is mixed with an extender. We request no more than 2.0-2.5 ml total volume. Exception: If shipping out Saturday for Monday delivery, Please add 5ml of extender; we will concentrate prior to insemination. This highly concentrated semen is necessary for intrauterine insemination to prevent backflow after the TCI is performed.

## Procedure for fresh semen TCI

When the stud dog is present, the semen is processed after collection by centrifugation and an extender is added. This is different than semen handled for routine vaginal insemination and is necessary prior to insemination directly into the uterus by either TCI or surgery.



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### **Procedure for frozen semen TCI**

The semen is not thawed until the insemination catheter is placed by TCI. This will allow for a back up plan of performing a surgical insemination in the unlikely event that TCI cannot be achieved.