

Advances in Canine Reproduction: Transcervical Insemination or TCI

Transcervical Insemination or TCI is an increasingly widely used non-invasive technique used to breed bitches.

The TCI technique allows bitches to be bred by directly delivering semen into the uterus non-surgically and without sedation or anesthesia. Most bitches stand well for this procedure; an occasional bitch will need a bit of convincing that this is a great idea.

With improved equipment and techniques, this option is becoming increasingly available and accepted. We are now using this for all 3 types of semen we use – fresh, fresh chilled/ shipped and frozen. Our outcomes are comparable with those when using the semen surgically.

Timing the breeding using TCI is the same as for other forms of breeding – it is based on type of semen used, not the delivery of the semen. Our recommendation is to breed 48 hours after ovulation (ovulation = progesterone 5 ng/dl) using fresh semen and 72 hours after ovulation using frozen semen.

The advantages of TCI are:

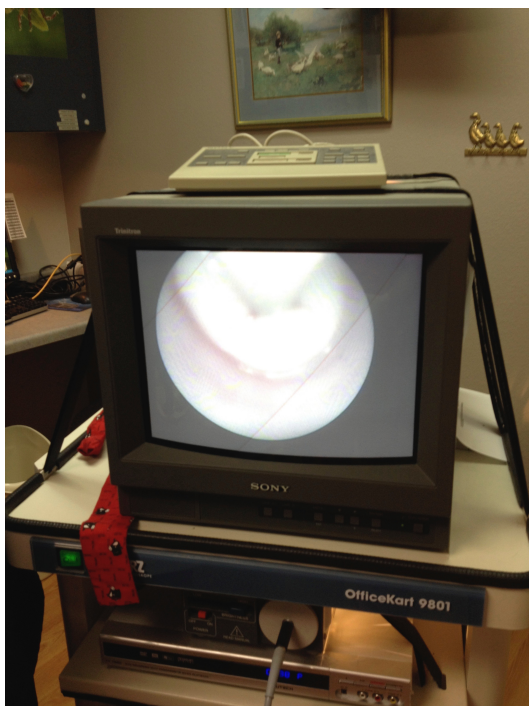
1. Non-surgical, non-anesthetic approach to introducing semen into the uterus of the bitch.
2. Shorter time at the veterinary hospital for you and your dogs.
3. Lower cost than a surgical breeding, but more expensive than a vaginal AI.
4. Opportunity to breed more than once on a cycle.
5. No decrease in pregnancy rate outcomes or litter size.

The disadvantages to TCI are:

1. Inability to assess the uterus for potential fertility issues such as cysts in the uterine lining (known as cystic endometrial hyperplasia.) Does not permit manual manipulation or rupture of uterine cysts / breakdown of adhesions.
2. In some cases, we will NOT thaw semen if the uterine condition appears to be such that a pregnancy will not result from a breeding. This is not something we can assess if we are not handling the uterus surgically.
3. If unable to cannulate the cervix with the catheter, we may need to resort to Plan B If the cervix cannot be cannulated and frozen semen is being used or there is a history of infertility in either the bitch or dog, it is an option to change plans and move to a surgical breeding as an alternative.

Semen Type	1. Fresh	2. Fresh Chilled	3. Frozen
Insemination Options			
1. Natural Breeding	X	---	---
2. Vaginal AI	X	X	---
3. TCI	X	X	X
4. Surgical Breeding	X	X	X
5. Multiple Sire Breeding	X	X	X
6. Combination	X	X	X

We are happy to discuss this and other options on the best way to breed your bitch using fresh, fresh chilled/shipped, and frozen semen.





The appearance of the catheter inserted though the opening of the cervix.