



Janice L. Cain, DVM

Diplomate, American College of Veterinary Internal Medicine

Primary Care – Canine Reproduction – Internal Medicine

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2000 BISHOP DRIVE | SAN RAMON, CA 94583

Information for using Fresh Chilled Semen either A/I or TCI

GENERAL INFORMATION

Welcome to my specialty practice at the Bishop Ranch Veterinary Center (BRVC). I would like to take this opportunity to tell you a bit about myself and my practice to better coordinate our working together.

I am a board certified internist with a specialty practice in small animal internal medicine and reproduction and I offer my practice exclusively at the BRVC. If you haven't been to our hospital yet, welcome to our exquisite state-of-the-art veterinary medical facility that also offers grooming and boarding services. When not at work, I'm busy raising our three children (22 year old daughter and 15 year old twins), and participating in a myriad of activities with my family. I've been enjoying my veterinary practice for over 25 years!

I am currently available Tuesdays, Wednesdays and Thursdays for scheduled appointments. Please call the BRVC to schedule an appointment. Since many reproductive procedures must be performed on days other than these, I make every effort to be available on my "days off". I must book these special appointments on my own (how could anyone keep up with my schedule!) and limit these appointments to procedures that are time sensitive. Please email janicecain@comcast.net or call my home business line (925-462-6445) to schedule. Semen freezing is offered only on T/Th mornings.

As a board-certified Internal Medicine Specialist, I have years of advanced training in Internal Medicine and have met special criteria set by the American College of Veterinary Internal Medicine (ACVIM).

- * Doctor of Veterinary Medicine, University of California, Davis 1984
- * Internship: Santa Cruz Veterinary Hospital 1984 – 1985
- * Residency in Internal Medicine: University of California, Davis 1985-1987
- * Board Certification: ACVIM 1989

Memberships:

- * American College of Veterinary Internal Medicine
- * American Veterinary Medical Association
- * American Animal Hospital Association
- * Society for Theriogenology



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I have expanded my days here at Bishop Ranch to include a day for General Practice work. I am now seeing appointments on Monday for routine vaccinations, second opinions and internal medicine cases. I am still seeing reproduction appointments Tues - Thurs and will see time sensitive cases on Mondays.

The best way to reach me is to email janicecain@comcast.net and leave a voice mail message (at my home if urgent). I will do my very best to reach you within a reasonable period of time.

OVULATION TIMING INFORMATION

Why ovulation timing (OT)?

The first day of the estrous cycle is defined as the first day of vaginal bleeding, designated day one of proestrus. There is a tremendous variation between bitches as to the length of proestrus and estrus, sexual receptivity, and ovulation. It is not possible to predict ovulation from evaluation of the color of discharge, firmness of the vulva, behavior of the bitch or stud dog, vaginal smear or the number of days since the onset of proestrus. After natural breeding, sperm can survive in the female tract for 3-6 days. After artificial insemination with fresh, chilled or frozen semen or when breeding a sub-fertile bitch or stud dog, this time of sperm longevity can be greatly reduced. OT is done to ensure sperm are present when ova are ready for fertilization. OT is also VERY helpful to more accurately predict whelping dates!

Progesterone blood testing

The evaluation of serial blood progesterone levels prior to ovulation (during proestrus and early estrus) allow us to most accurately predict ovulation. Rather than wait until a specific level is reached, we evaluate the baseline, first rise, and rate of rise to determine ovulation. In general, values less than 1.0 are baseline, and increases to 1.5-2.5 are consistent with an initial rise, but this can vary greatly. Many bitches have progesterone levels that go up and down before completely rising. After ovulation, progesterone will continue to rise and will maintain high levels (>10) for approximately two months regardless of pregnancy status.

Drop-In Progesterone Testing

Progesterone testing can be done anytime during regular office hours at the Bishop Ranch Veterinary Center. You do not need to schedule an appointment with Dr. Cain or another DVM, but please do schedule a drop in appointment for the technician to draw the blood sample. All progesterone tests are sent to Idexx and results are usually available within 24 hours. Please leave a message on Dr. Cain's home voicemail (925-462-6445) or email janicecain@comcast.net to let her know you have begun the timing process and leave a number where you can be reached with results.



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Protocol

Begin progesterone testing by day 5-7 of proestrus (day 1 = the first day blood is seen). If any doubt, you can start sooner. We recommend progesterone testing every other day at approximately the same time of day. Food does not need to be withheld. Once the progesterone values are changing, in some cases Dr. Cain may ask you to start daily timing to be more specific.

Fees

- * Progesterone test: \$69.60
- * Consultation \$68.00-88.00
- * Vaginoscopy \$48.00 (if necessary as part of the pre-breeding exam).

INSTRUCTIONS FOR PROGESTERONE TESTING

BEGINNING

Start progesterone testing between the 5th-7th day of the cycle (day 1 = first day of bloody vaginal discharge).

WHEN TO TEST?

Try to be reasonably consistent as to the time of day (i.e., morning vs. evening). Start by testing every other day. You may be instructed to switch to daily testing as the cycle progresses. You will be instructed when to stop testing.

PREPARATION OF THE BITCH

Nothing special; you do not need to fast your bitch prior to the blood tests.

TESTING AT BRVC

We are open 7 days per week for your convenience. You do not need to schedule an appointment with me, or another DVM for this service. If possible, please schedule a drop in appointment with a technician to expedite the process. You can defray payment for the tests until the end of the testing period. Cost per progesterone: \$69.60.

TESTING AT ANOTHER VETERINARY HOSPITAL

Please have your DVM follow these instructions: Submit whole blood (plain RTT) to Idexx for a progesterone test #806. Do not need to separate serum. Do not use a serum separator tube. If obtaining serum for another reason, transfer serum to a plain RTT for progesterone submission.



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COMMUNICATION OF RESULTS

If testing at your local hospital, please have your DVM contact you with the results as soon as they are available. Then, please call my home voice mail (925-462-6445) or email me at janicecain@comcast.net and report the result to me. This is actually the most efficient method to be sure I am getting your test results. Please do not rely on faxes or copies of lab reports to be sent to me.

INTERPRETATION OF RESULTS

I access results for blood drawn at the BRVC every morning and will call you with an interpretation. If you haven't heard from me by 11:00 am, please call my home voicemail 925-462-6445. If drawing blood elsewhere, I may not be available to assess results until later in the day. The fee for ovulation timing coordination is \$58.00 (this is often waved for blood drawn at the BRVC).

MORE QUESTIONS ABOUT PROGESTERONE TESTING

Please read my handout about ovulation timing and let me know if you have additional questions!

ARTIFICIAL INSEMINATION

Terminology

Artificial insemination (AI) at BRVC refers to the deposition of "fresh" semen into the vaginal canal. Other commonly used terms include "fresh AI" or "side-by-side AI". In my office, this procedure is simply termed: "AI". An insemination with chilled or frozen semen is identified by defining the type of semen used: i.e., "chilled semen insemination" or "frozen semen insemination"

Procedure

The stud dog and bitch are brought to BRVC for an appointment together. Semen is usually collected with both dogs in the exam room, unless the owner requests differently. Semen is evaluated for motility, an estimation of concentration, and evaluation of sperm morphology. A written semen evaluation is not provided at this time. The bitch is properly positioned with her hindquarters elevated and the semen is deposited in the cranial portion of her vaginal canal. To enhance the positioning of the insemination pipette, a vaginoscope is often used. After the procedure, the bitch can resume all normal activity.

Fee for procedure

\$150.00 includes everything identified above



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Semen extender

At times, if the semen is marginal in quality, a semen extender can be added to enhance motility. The extender also contains antibiotics, so it is also used if there are WBC in the semen. Semen extender is not included in the basic AI fee.

Estimate for the cost of extender is \$50-75 (depends on amount used).

Progesterone testing

To increase the likelihood of conception, progesterone testing is essential to determine if the bitch has ovulated. If progesterone testing has not been done by the time of the AI, it is recommended to do a progesterone test at that time. Results will not be available until the next day, however, we can determine retrospectively if we seem to be on track with the timing. We also use that value to tell if we should perform a second AI within 24-48 hours.

Progesterone fee: \$69.70

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.



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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.

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.

Estimation of fees:

- * Consultation \$68.00-88.00 (charged once per cycle).
- * TCI: \$350.00.
- * Ovulation timing coordination: \$55.00.
- * Frozen semen thawing/handling \$55.00 each insemination.
- * Chilled semen handling/preparation \$48.00
- * Fresh semen collection, centrifugation and extender: \$150.00 each collection.
- * Progesterone blood test: \$69.60 each

EARLY PREGNANCY AND PREGNANCY DIAGNOSIS

WHAT TO DO NOW?

After breeding, your bitch can resume her normal routine. Exercise is encouraged, so long as not excessive (hard road-work, jumps at maximal heights, dock-diving). I highly recommend avoiding events where a large number of dogs will congregate, such as dog shows. Attending the usual training classes, in a controlled environment of healthy dogs, is not usually a problem. Boarding is not recommended. I am concerned that if a potentially pregnant bitch contracts an infectious disease, she could lose her litter.



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DIET

New information has led to the recommendation to change her diet either before or at least by the time of breeding to one that is AAFCO tested and is composed of: 27-34% protein, at least 18% fat, and 20-30% carbohydrate. I recommend discontinuing any nutritional or nutraceutical supplements.

PREGNANCY DIAGNOSIS BY ULTRASOUND - Not Just for Counting!

Ultrasound to detect pregnancy is 100% safe and is the very best method to determine fetal well-being. I usually conduct ultrasound exams 25-32 days after the last breeding day. This allows my best opportunity to estimate litter size and detect fetal heartbeats. After day 35, the fetal sacs enlarge and can overlap, making an accurate count less likely. Other advantages of ultrasonography include diagnosis of fetal resorption, uterine disease, ovarian disease and urinary tract health.

RADIOGRAPHIC DIAGNOSIS OF PREGNANCY

Although fetal skeletons start to become apparent by day 45, an accurate head-count can only be performed during the last week of gestation. In some cases (especially very large litters) accuracy is not 100%. If not doing whelpwise, I highly recommend a late term x-ray to confirm head count and determine if any problems are apparent prior to whelping.

WHELPWISE BY PERINATAL VETERINARY SERVICES

This service provides equipment to monitor uterine contractions, fetal heart beats and is an excellent method to monitor whelping. Owners using this service can take advantage of the opportunity to have calcium and oxytocin on hand for safe use at home under the supervision of the Whelpwise staff (available 24/7). For more information: www.whelpwise.com or call 1-888-281-4867.

BLOOD PREGNANCY TEST

The relaxin assay is a fairly reliable method to confirm pregnancy. Blood is drawn approximately 28-30 days after breeding. This test will not estimate litter size, and I have seen false results on occasion. Ultrasound remains your best method to evaluate early pregnancy.

C-SECTIONS

I am usually available 7 days per week for C-sections and, together with my excellent staff, provide a state-of-the-art experience for the bitch and owner. Elective C-sections can be scheduled at the ultrasound appointment. For emergency C-sections, if I can't be reached, another BRVC doctor may be able to help you. We are not available after-hours (before 8 am daily and after 10pm weekdays, 8pm weekends).



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Approximate fees

Ultrasound: \$150

Follow-up ultrasound: \$115

Pregnancy x-ray: \$165

**PLEASE CALL THE BISHOP RANCH VETERINARY CENTER
(925-866-8387) to schedule exams.**