

FELINE HISTORY, OCCULT, & OVERT EXAM

Steven J Bailey, DVM, DABVP (Feline)

ECats Veterinary Hospital

bailey@ecats.vet

Electronic Medical Records

- Our examination findings are the **heart** of our electronic EMR
 - History or presenting complaint is a combination of comments entered by receptionists, technicians, and the veterinarian
 - Current medications and dietary history can be confusing and exhaustive
 - “Current Meds & Diet”
 - Copy-paste-verify from the most recent prior visit
 - Physical Examination (PE):
 - Always starts with a change in body weight over time (%)
 - Scoring systems are helpful in research and objective trending
 - Less meaningful, confusing, to clients
 - Remainder of examination is recorded as a template

- The Master Problem List (MPL) is the **soul** of our EMR
 - Most Practice Management Software (PMS) programs to a poor job with the MPL
 - Manual MPL upkeep adds value, improves patient management
 - Problems are ranked in order of importance
 - All staff members have a role in MPL upkeep
 - Once CKD is added to the MPL it generally takes the lead
 - “Resolved”, or “inactivated” problems are moved to the bottom of the list
 - This MPL is printed out to a paper ‘baton’ which is used for notes
 - This “Admit Sheet” contains important household information and is printed for all our patients, whether they are seen outpatient or become inpatients.

Client Consultation

- Integrated or wholeistic
 - Review the records for other cats in the home
 - Encourage compliance for wellness care or follow up on previous medical issues (dental care).
 - Next, review this patient's history and consider missed followup care, or missed wellness care
 - Finally, review the reason for today's presentation
 - During this time, the "occult" examination has already begun.

Occult Examination

- Avoid overtly greeting the cat, and looking at the cat
 - In fact, the occult exam starts the moment you enter
 - Demeanor:
 - Gregarious, dog-like, timid, agitated, aggressive, etc.
 - Attempt examination, even if the owner labels the cat as "feral"
 - CNS assessment, neurologic status
 - Pain assessment
 - What is the cat's quality of life?
 - Gait:
 - Is the gait a 'walk' or a 'pace'
 - Normal straight, stilted, or hypermetric
 - Lameness, weight bearing
 - Respiratory
 - Oculonasal discharge
 - Not typically confusing or overlooked
 - Noise:
 - Usually coincides with effort, but not always
 - Very important: inspiratory or expiratory?
 - The big three are stertor (common), stridor, and wheeze
 - Don't order radiographs until you are sure of this
 - Effort:
 - Usually coincides with effort, but not always
 - Very important: inspiratory or expiratory?
 - Don't order radiographs until you are sure of this
 - Dyspnea is a clinical symptom reported by man, and inferred by veterinarians. Always include the adjective, inspiratory or expiratory

- Rate:
 - Most nervous cats in the clinic, following their transportation stresses, will have a respiratory rate (RR) of about 50 bpm. Chest excursions should be shallow and show minimal effort. When I actually lay my hands on the cat I will palpate (body condition, muscle tone and) respiratory effort to confirm my initial assessment. Assessing for eupnea (or dyspnea) is a process, I encourage you remain skeptical of your first assessments.
- Symmetry
 - Eyes:
 - Anisocoria, dyscoria, axis rotation, or deviation
 - Anterior chamber depth,
 - Third eyelid protrusion
 - Ears:
 - Position (hyperT4) and posture,
 - Ear tip droop (old, steroids, catabolism)
 - Movement (deaf and CN7)
- Special Senses (other than taste)
 - Vision (as they move about)
 - Hearing (tweet, kiss, clap)
 - Smell
 - Cats should be smelling everything, if they are not, there could be an issue
 - Anosmia
 - “Overlapping clouds” of informative odors
- Coat condition
 - Relates to dental, musculoskeletal, other conditions
- Pruritus
 - Most cats presented for an exam in your practice should not be grooming
 - Grooming is done when they are relaxed and settled
 - If they are grooming in you exam room, consider that they may be pruritic or annoyed

Physical Examination: overt exam

- Feel the cat
- Examine the head, neck, and mouth
- Examine the front feet (more?)
- Examine & auscult the chest

- Palpate the kidneys (abdomen)
- Examine the eyes and ears
 - o Every cat, ever eye, every ear ever visit
- Exam takes < 2 minutes

AAFP Feline Track




American Feline Association of PRACTITIONERS®



Cat Friendly Practice
By the American Association of Feline Practitioners

www.catvets.com
info@catvets.com

Physical Examination of the cat, more fun than ever?



Steven J. Bailey, DVM, DABVP (Feline)
bailey@ecats.vet

© Railev 2016


Overview

- Problem Oriented Medical Records (POMR)
- Electronic medical records (EMR)
- Master Problem List- Important
- Occult examination- Important
- Overt examination
 - Feel the cat
 - Examine the head, neck, and mouth
 - Examine the front feet (more?)
 - Examine & auscult the chest
 - Palpate the kidneys (abdomen)
 - Examine the eyes and ears
 - Exam takes < 2 minutes

© Railev 2016

Physical exam


- I REALLY pay attention to the cat
- I really pay attention to the teeth
- I really look at the eyes
- I really look at the ears
- I really feel the kidneys



© Railev 2016

Physical exam

- A cat friendly examination
- Exam is really short
- Exam is really simple



© Railev 2016

History

- Medical Records (Electronic) EMR
 - Important
 - (Just not as much fun as clinical pathology)
- Good records are:
 - Difficult & time consuming to create
 - Consistent within a hospital culture
 - Easy to follow & efficient
 - Make for superior patient care
 - Our responsibility

© Railev 2016

EMR: the "exam report"

- The written examination
 - History, chief complaint (S)
 - Current medications and dietary (S)
 - "Current Meds & Diet"
 - Physical examination (O)
 - Assessment, includes (A)
 - New 'problems'
 - Update old problems
 - Plan (P)

The HEART of our records...



© Railev 2016

EMR: Master Problem List



- The "master" problem list (MPL)
- Dynamic, living

The SOUL of our records...

© Railev 2016

(E)MR: Admit Sheet:

MASTER PROBLEM LIST	MEDICAL PROBLEMS
-- ATRIAL FIBRILLATION: 1/15	STONE ANALYSIS: STRUVITE 100%
-- TACHYCARDIA, MARKED, VARIABLY IRREGULAR RHYTHM: 1/15	-- DENTAL DISEASE: Fx. 104 w/ pulp exposure 12/11 DENTAL PERFORMED 1/12, 12/13 Obvious tooth resorptions at #107 and 207. 7/13 MARKED CALCULUS: 1/15
-- WEIGHT LOSS: 1/15	-- SKIN: mild barbering - focal thinning of haircoat (dandruff lateral (left) to base of tail); 4/13
-- SPONDYLOSIS: 12/11	-- FLEAS: 12/11 Resolved
-- LOWER URINARY TRACT DISEASE: 7/13 On Penis (genitourinary anomaly) 7/13 Intact male???? 12/11 See sx. notes (We should document if this is still). CYSTOTOMY PERFORMED 7/13	* Front declawed *

© Railev 2016

Body weight

- Accuracy cannot be overstated

LONG TERM

- By itself, an isolated weight is not meaningful
 - We need to know the change in weight over time
 - We need to know this cat's lean body mass
 - We need to see the trend over time

© Railev 2016

(E)MR: Admit Sheet:

Reminders for Buddy aka Grey Kitty

- 08-07-13 Intestinal Parasite Exam, Flot
- 06-09-14 Urinalysis(UA/culture plate)
- 06-08-15 Prophyl: Scale and Polish
- 04-10-14 Urine: chemstrip w/SG plate
- 10-09-13 Systolic Blood Pressure
- 07-17-14 CBC Profile w/ thyroid level
- 06-09-14 Senior wellness exam
- 11-30-12 Pure Vax Annual Rabies

BW Δ in Weight = HR Body Temp

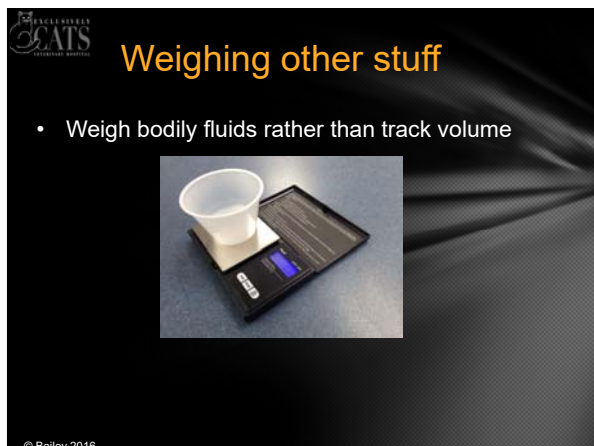
And systolic blood pressure for cats over 8 y of age


© Railev 2016










**BCS?**


- Body Condition Score (5/5, 9/9, 10/10)
- Muscle Condition Score (sarcopenia)
- Pain Score
- Quality of life score (Karnofsky)

© Railev 2016

**Body condition**

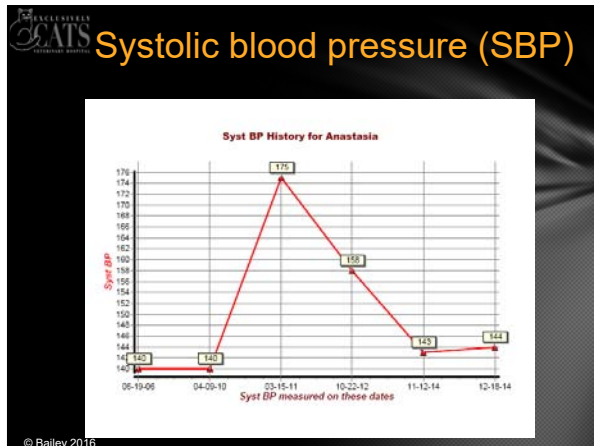
- Emaciated (1/10)
- Markedly skinny
- Very lean condition
- Lean body condition
- Good body condition
- Mildly overweight
- Moderately overweight
- Markedly overweight
- Obese
- Morbidly Obese (10/10)

© Railev 2016

**Systolic blood pressure (SBP)**

Do you believe?

© Railev 2016





Examination

30 minutes after the client has arrived:
you have yet to look at the patient?

Or have you?


© Railev 2016

Occult Exam

- Weight and body condition
- Demeanor, character, affect
- Neurologic status
- Pain assessment
- Gait, posture, tail carriage
- Respiration
- Eyes: vision, symmetry
- Olfaction
- Hearing, Ear Posture
- Exaggerated swallowing
- Coat condition
- Pruritus

© Railev 2016

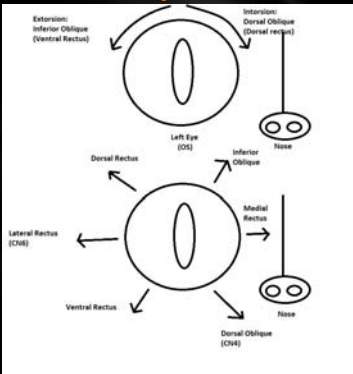
Occult Exam: eyes



Packaging for Revolution Anisocoria & Intorsion

© Railev 2016

Occult Exam: eyes



The diagram illustrates the innervation of the extraocular muscles of the eye. It shows two views of the eye: the top view for extorsion and the bottom view for intorsion. The muscles shown are the Inferior Oblique (IO), Dorsal Rectus (DR), Lateral Rectus (LR), and Ventral Rectus (VR). The IO is innervated by the trochlear nerve (CN IV), and the DR, LR, and VR are innervated by the abducens nerve (CN VI). The diagram also shows the location of the nose relative to the eye.

© Railev 2016

Occult Exam: hearing

- Tweet
- Kiss
- Clap

- Tuning fork?

- BAER—Brainstem auditory evoked (response) potentials

- Clients are impressed you have check, especially if they agree

© Railev 2016

Occult Exam: hearing

- No longer respond to a 'tweet':
 - Cats > 15y
 - Hypertensive cats
 - Hyperthyroid cats
 - Chronic middle ear disease

- Cats with unilateral obstructive external ear disease or middle ear disease may no longer localize sounds with the affected pinna

© Railev 2016

Occult Exam: pinna

Hyperthyroid Ears: posture



© Railev 2016

Occult Exam: pinna

Drooping flaccid ear tips

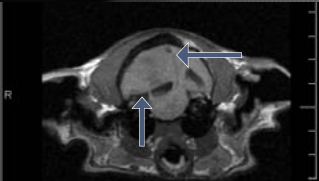
- Catabolism
- Diabetes Mellitus
- (Cushings)
- Exogenous steroids
- Idiopathic



© Railev 2016

Occult Exam: CNS

- For the cat who presents ADR watch for aimless wandering
- Watch for circling, slow circles.
- Can the cat circle both ways?
- Wall walking
- Gait: pace



© Railev 2016

Exaggerated swallowing

Also known as: lip smacking, lip licking

Differentials include:

- Respiratory disease (mucus, exudative, inflammatory)
- Heartworm disease
- Oropharyngeal disorders
- CNS disease
- Ptyalism
- Esophageal disease (reflux, TB, stricture, esophagitis)
- Nausea
- GIT pain (FB, mass, ulcer, infiltrative)
- Others

© Railev 2016

‘Bronzing’ coat

- Excessive grooming, porphyrin staining
- Hypothyroidism
- Steroids
- Chemotherapy
- Tyrosine deficiency




© Railev 2016

Occult Exam: coat

GROOMING IN THE EXAM ROOM?


Not typical of all but the most relaxed cats



© Railev 2016

Occult Exam: coat

GROOMING IN THE EXAM ROOM?



© Railev 2016

Occult Exam:

PAIN, GAIT, POSTURE, & STANCE

- If after my PE, I need a better gait assessment, I will open the door and let the cat (the dogs) leave the room. Timid cats: I take 35' away (across the carpeted reception area) and let them walk back. Catnip toys help some cats.
- Keep the owners in the room (if you can)

© Railev 2016

PHYSICAL EXAM



Finally

© Railev 2016

Physical exam: overview

- Feel the cat
- Examine the head, neck, and mouth
- Examine the front feet (more?)
- Examine & auscult the chest
- Palpate the kidneys (abdomen)
- Examine the eyes and ears
- Exam takes < 2 minutes

© Railev 2016

THE OCCULTIBLES
CATS
EXAMINATION MATERIAL

Overt Exam

- I mentally set aside the review of history
- I have noted occult findings
- Finally...I touch the cat

© Railev 2016

THE OCCULTIBLES
CATS
EXAMINATION MATERIAL

Overt Exam

- I let the cat "talk to me"
- I "feel their energy"
- I don't believe in Voodoo, and auras...
- I really think it is the conscious act of clearing my head, paying attention, and tuning in

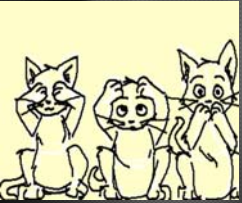
© Railev 2016

THE OCCULTIBLES
CATS
EXAMINATION MATERIAL

Overt Exam

- Minimize Touches
- Maintain constant contact, don't lose control
- Remember, separate grumpy cats into different examination rooms.
- Fear and aggression are contagious

Don't react!




© Railev 2016

PE: head & neck

- Place the cat in lap facing your dominant side (R), no talking, no stroking
- Lift their head to look at them, the only restraint may come from your L elbow
- At first, have your eyes a bit closed; then, open them...just a bit
- Examine more closely for symmetry and overt issues with the nose, eyes, ears and mouth

© Railev 2016

PE: oral exam



© Railev 2016


PE: oral exam

- Examine the mouth as closely as possible
- It is OK if they hiss
- Pawing is ok
- The first swat is usually ok
- If possible, do not have anyone restraining the cat, just you

© Railev 2016

PE: oral exam

30 teeth
Know them intimately




© Railev 2016

PE: oral exam

More than 50% of the cats over the age of 5 have lost, or are in the process of losing, one or more teeth due to tooth resorption (TR)

The most important service we provide to patients between the ages of 5 and 12 years is dental care




© Railev 2016

PE: oral exam

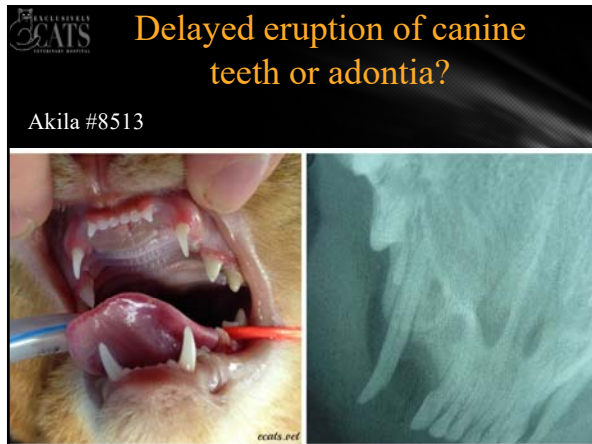
Each tooth is prone to its own diseases and mishaps (TR, wear, calculus, and fractures)

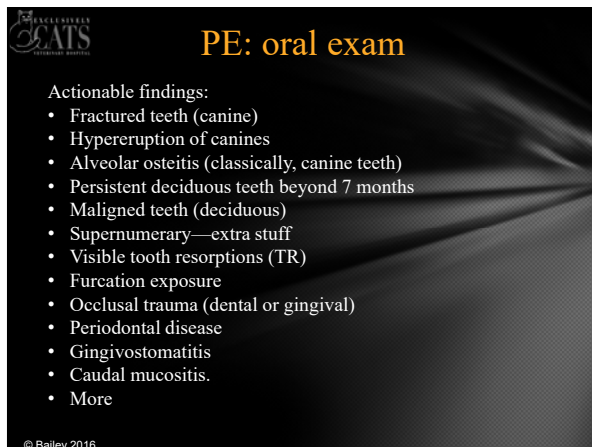
Each has its own challenges and opportunities regarding surgical extractions

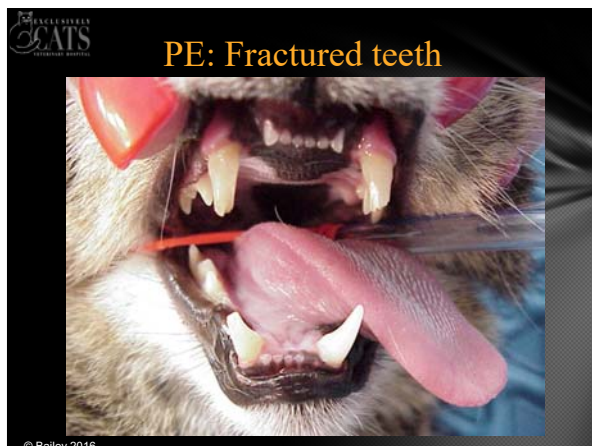
I am pragmatic, but I am looking for a reason to say, "ouch" or "yuk" out loud, for emphasis



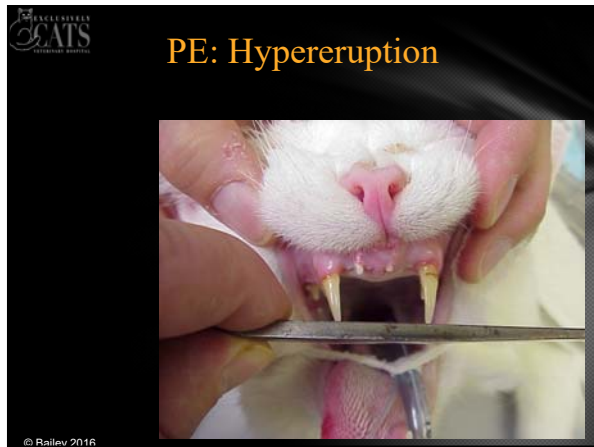
© Railev 2016







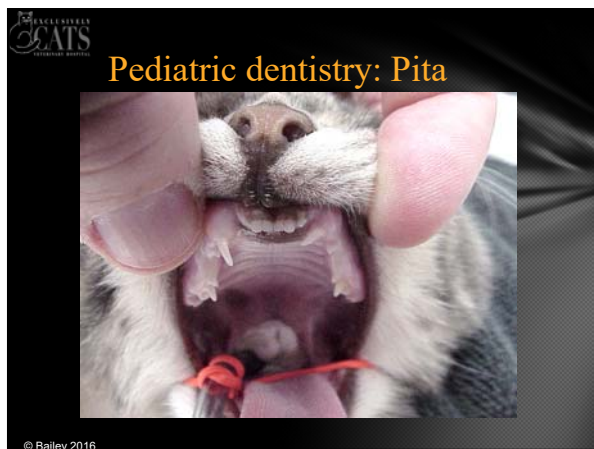


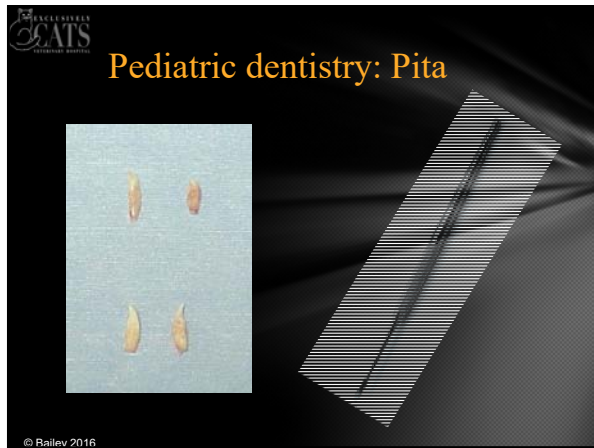












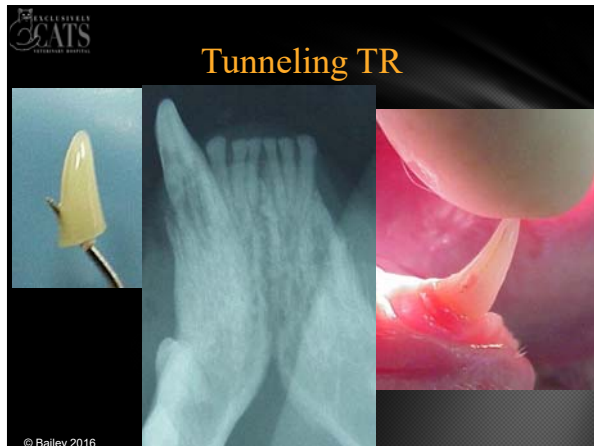














PE: head & neck

After the oral exam, then I move to the neck and palpate for "thyroid-like" masses

If appropriate try and elicit a cough?

© Railev 2016


PE: head and neck, cont.

- You have examined the head and face for symmetry
- Examined the mouth for oral disease
- Palpated of the cervical region (briefly)
- Now move to the (front) feet
 - If you spend too much time on the feet some cats with become irrevocably upset

© Bailev 2016

PE: Feet

- Exam of the feet is patient dependent
- Joint swelling, mobility
- Evaluating for mass lesions
- Evaluate the pilo carpal glands
- Evaluate claws for normal growth
 - Inspect declawed digits for pad or P2 displacement



© Bailev 2016

PE: Feet

If declawed, evaluate for pad displacement, claw regrowth, contracted tendons



© Bailev 2016

PE: Respiratory rate and effort

- Most of the observations of respiratory function (and listening for respiratory sounds) has already occurred during the occult examination
- Simultaneous with the exam of body mass, muscle mass & tone, their respiratory rate and effort is again assessed
- Assessing for eupnea (or dyspnea) is a process. Remain skeptical of your (first) assessments.

© Railev 2016

PE: Respiratory rate and effort


- Normal cats and cats having respiratory issues both have RR in the clinical setting of about 50 bpm.
- Chest excursions should be shallow and show minimal effort.
- Now, finally, you may auscult the chest...

© Railev 2016

PE: Respiratory noise & effort


- Usually coincide, not always
- Primarily inspiratory or expiratory?
- The big three noises:
 - stertor (common),
 - stridor,
 - Wheeze
- Do not order radiographs until you are sure of this

© Railev 2016

 **PE: Respiratory noise & effort**

- Auscultation of lung sounds in a eupneic cat is not very rewarding
- In a cat with signs of respiratory disease, I listen more carefully
- I particularly make a point of listening to airways sounds over the cervical region.


© Railev 2016

 **PE: examine the chest**

PURRING?

- Alcohol near the nose
- Running water
- Plug their nose
- Open the door (sounds, breeze, odors)
- Find another cat (dog?)
- Find a mean cat (seriously?)


© Railev 2016

 **PE: examine the chest**

Growling and Hissing?


- Placing your hand under these cats is a violation, and an invitation to bite
- I will lift the cat slightly off my lap with my non-dominant hand, then set him back down on the stethoscope
- Squirmy, less aggressive cats I cup my hand over their head and eyes to settle them (e.g. ostrich)

© Railev 2016

**PE: the heart**


- While the cat is in my lap, before I auscult the chest, I will feel the precordial pulse
- If I palpate any dropped beats, I may feel a bit longer and apply a bit more digital pressure
- Then I will auscult the heart

© Bailey 2016

**PE: kidneys & abdomen**

- When done ausculting the thorax remove the cat from your lap & return to the counter, facing away
- Ask the client to keep the cat from moving away, or jumping down
- Now, the primary goal is to palpate the kidneys first, and then I move on to the rest of the abdomen
- If they void during bladder assessment, consider this a sign of LUTD

© Bailey 2016

**PE: kidneys & abdomen**

- If abdominal disease is suspected, more palpation will occur under anesthesia (during imaging)
- When done with palpation, lift the tail and evaluate the anus, urogenital tract, and perineum
- Back to the front (for the eyes and ears)

© Bailey 2016

PE: Ophthalmologic exam

- After abdominal palpation, spin the cat around to face you
- Motion for the owner to “place one hand on the rump” (to prevent the cat from backing away), and “don’t pet”
- If the client (or staff) wraps their hand around the cat’s trunk, the cat will most often squirm and try harder to get away

© Railev 2016


PE: Ophthalmologic exam

- The direct ophthalmoscope was previously assembled and set to -3 diopters
- Gently restrain the cats head with non-dominant hand and then face the cat (6”). Squinting or closing eyes as you approach
- Again, continue to evaluate symmetry and reconsider prior assessments

© Railev 2016

PE: Ophthalmologic exam


- Injuries are rare
- I can recall three
- This was not one of them



© Railev 2016

PE: Ophthalmology exam

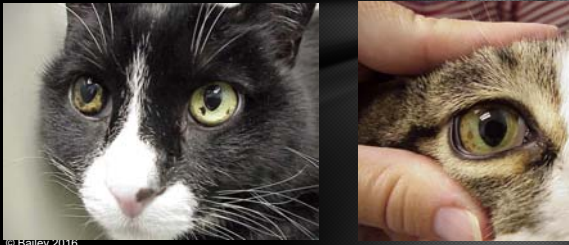
- Anisocoria & Dyscoria
- Axis deviation & Axis rotation
- Palpebral fissure size & symmetry
- Anterior chamber depth & opacities
- Corneal clarity and curvature



© Bailey 2016

PE: Ophthalmology exam

- Iris color & pigmentation
- Nictitans protrusion & symmetry
- Digital tonometry if warranted



© Bailey 2016

PE: Ophthalmology exam

- Iris freckles....a small percentage are going to turn into malignant melanomas
- With melanoma you may see:
 - Free Pigment
 - Raised Iridal Lesions
 - Early Glaucoma
- Obtain photo images early on to track changes

© Bailey 2016

Cornea

Wasmannia auropunctata

“Florida Spots”



Cornea

- Eosinophilic keratitis:
- Not uncommon
- Easy to recognize
- Scrape and cytology helps
- Steroids




Anterior Chamber



Too large of a topic, and not easily missed, so not part of today's discussion

PE: Fundoscopy

- No idea this would be so cool!
- Every cat, every eye, every visit
- Using it is easy, mastering it is not
- Students are told they will need to look a 1,000 eyes before they start to become competent and efficient
- Some ophthalmologists discourage(?)



© Railev 2016

PE: Fundoscopy



© Railev 2016

PE: Fundoscopy

I have worked with 11,500 cat owning clients.
They have > 2 cats on average.
That is close to 25,000 cats, 50,000 eyes. Most we have seen multiple times

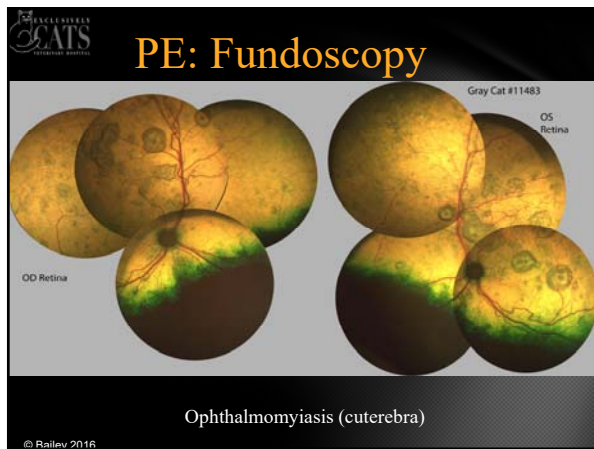
YOU folks will see more feline eyes in your lifetime than most ophthalmologists will

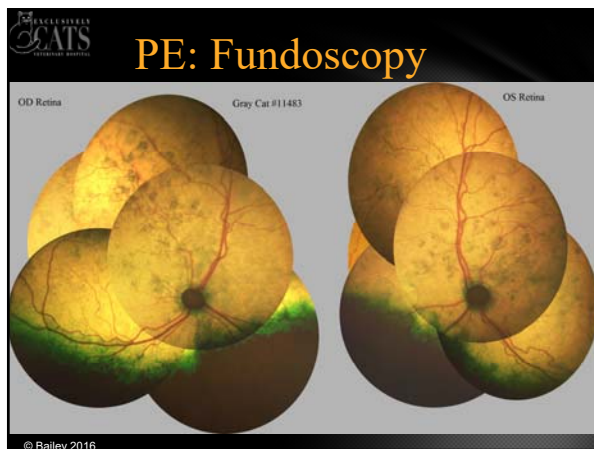
A problem with the direct ophthalmoscope is the we see a small portion of the fundus at one time

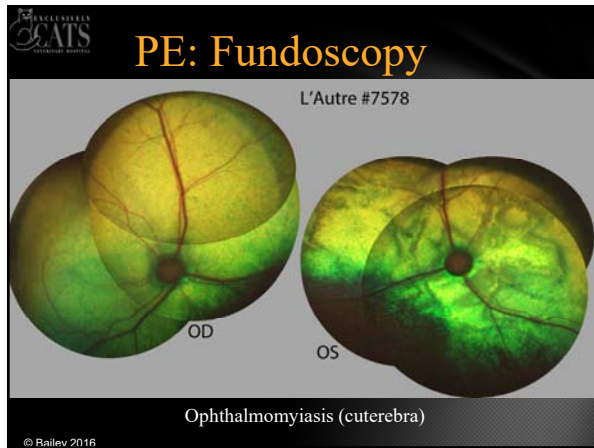
I have a hard time sharing what I see with clients.

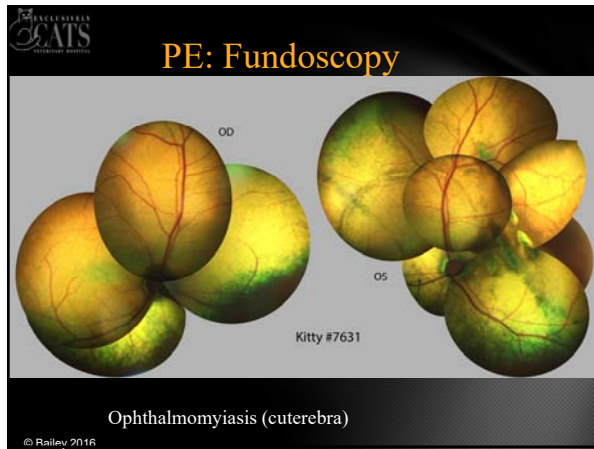
© Railev 2016

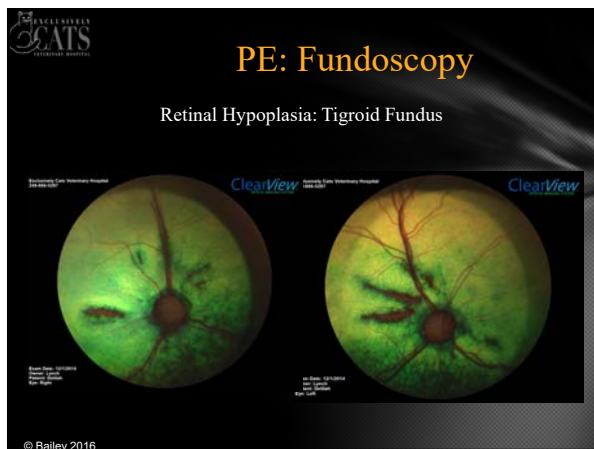


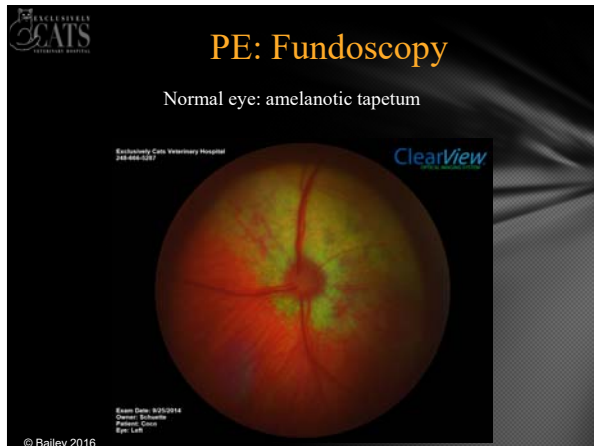


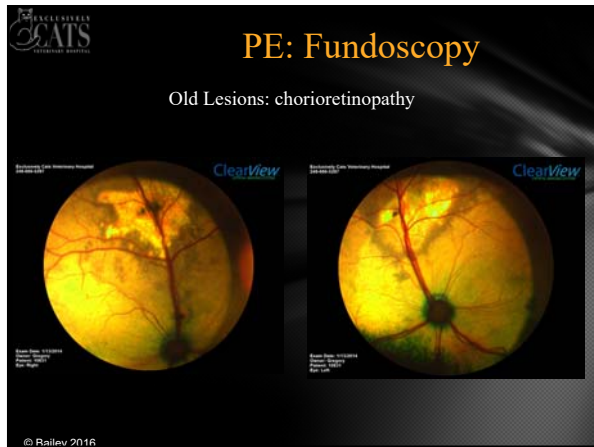


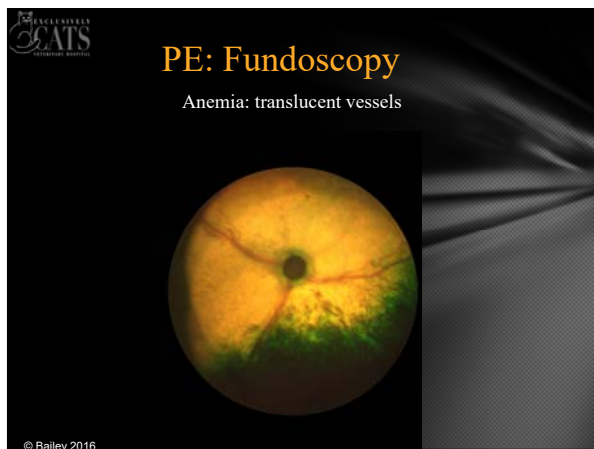


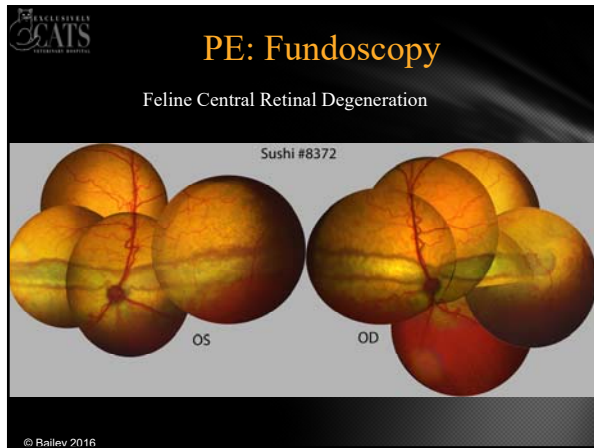


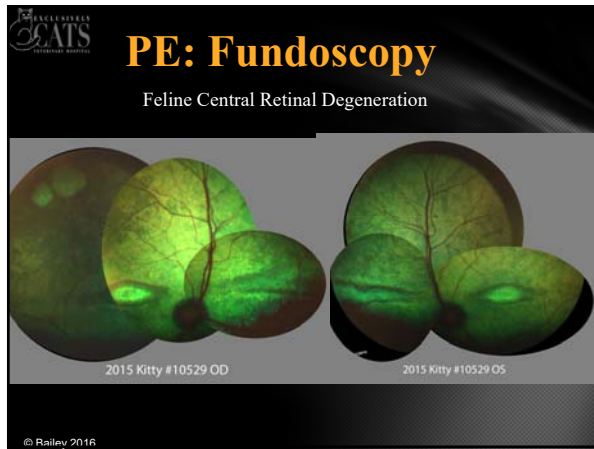


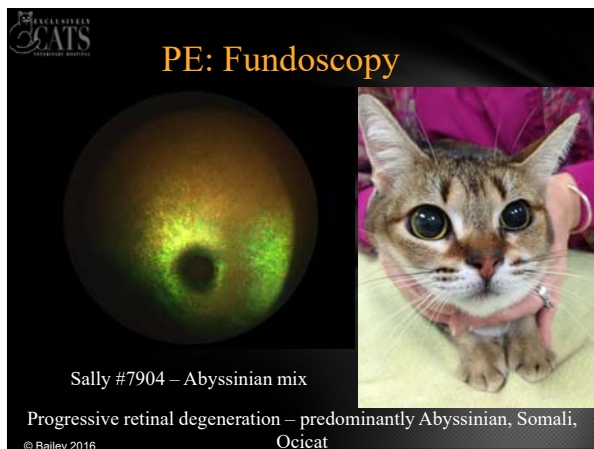


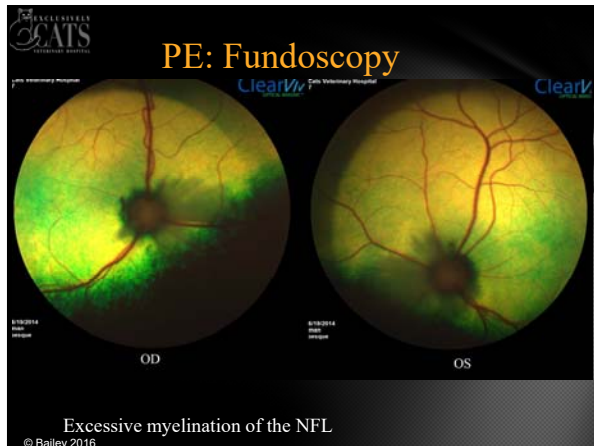


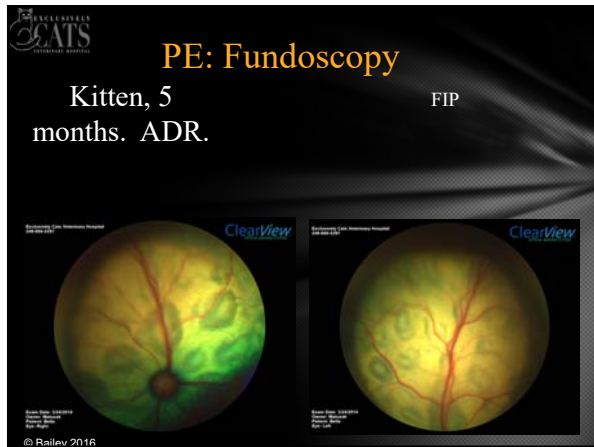


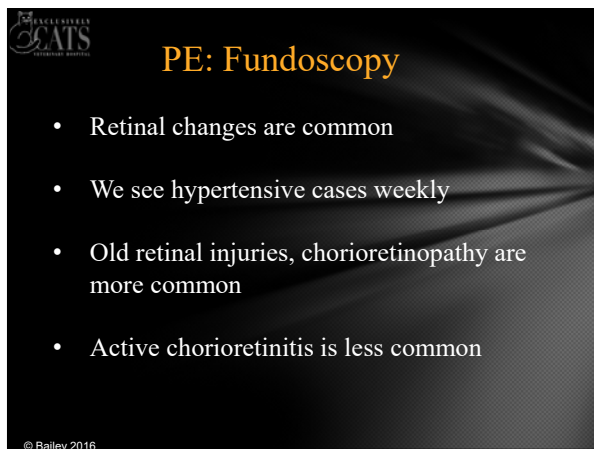













PE: Otoscopy


- No idea there would be so much to see!
- Every cat, every ear, every visit
- Using it is easy, mastering it is not
- Students are told they will need to look 1,000 ears before their exam is comfortable, and they are competent and efficient



© Railev 2016

PE: Otoscopy

- WA Digital (video) Otoscope
- Less than \$1,200
- Good for taking photo images of ears, teeth, laryngeal lesions, and more
- Not great for working through



© Railev 2016

PE: Otoscopy

Cranial aspect (malleolus) Caudal aspect of the TM



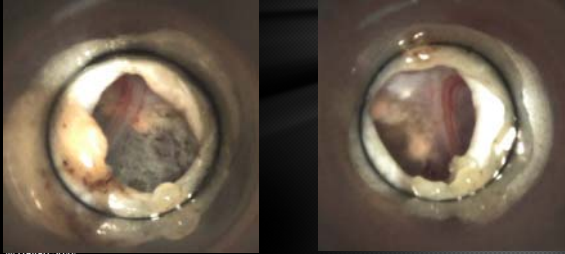
#9932 L ear, normal ear.

© Railev 2016

PE: Otoscopy

Thickened, opaque, lumpy-bumpy, granulomatous TMs.

Tasha #10418

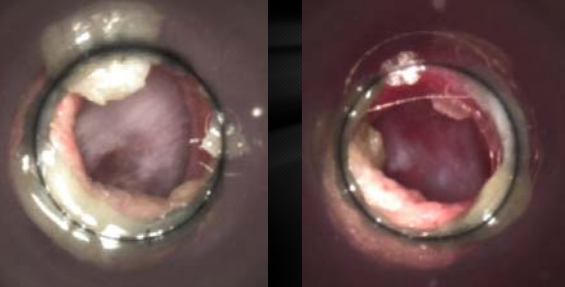


© Rallev 2016

PE: Otoscopy

Thickened, opaque, lumpy-bumpy, granulomatous TMs.

Max #6645



© Rallev 2016

PE: Otoscopy



© Rallev 2016

PE: Otoscopy

Ceruminoliths: common, often overlooked.

© Railev 2016

Ceruminoliths: “the ear plug”

Formed out of ceruminous secretions, exfoliated epithelial cells, dead mites

Found either immediately, or years later following, treatment for *Otodectes cynotis*

The plug is held in place:

- Gravity
- Negative pressure seal
- Stickiness
- Conformation “like a glove”

© Railev 2016

Summary

- ER + MPL = heart and soul of our EMR
- Occult exam can be more important than the PE
- Be aggressive finding & treating dental disease both young and old cats
- Be proactive about looking for (& treating) hypertension
- Every cat, every visit:
 - Every eye
 - Every ear
 - Every kidney

© Railev 2016