




# Risk Assessment of Dogs with a History of Aggressive Behavior

Christopher Pachel, DVM, DACVB, CABC (IAABC)  
Animal Behavior Clinic, Portland, OR, USA

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## What is aggression?

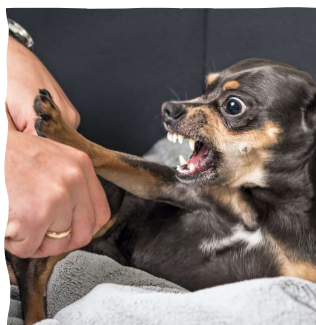
- Threatening/harmful behavior directed toward an individual or group
- Forceful, sometimes overly assertive pursuit of one's aims and interests
- Hostile or violent behavior or attitudes toward another
- Readiness to attack or confront



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## May include ...

- Body postures
- Facial expressions
- Vocalizations
- Snaps / bites



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Why would someone keep an “aggressive animal”?

- Not a simple answer!
- Essentially every animal has a bite or reaction threshold
- Aggression is communication (WTF)
- Need to understand context and interaction between individuals
- Treatment options exist

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# Decisions / Recommendations

- Influenced by personal and professional experience
- Subjective assessment
- Ethical factors
- Multifactorial
- Risk assessment to identify safety concerns



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## Risk Assessment

### Pet factors

- Age, size, breed

### Bite history

- Severity, pattern, warning signals

### Context

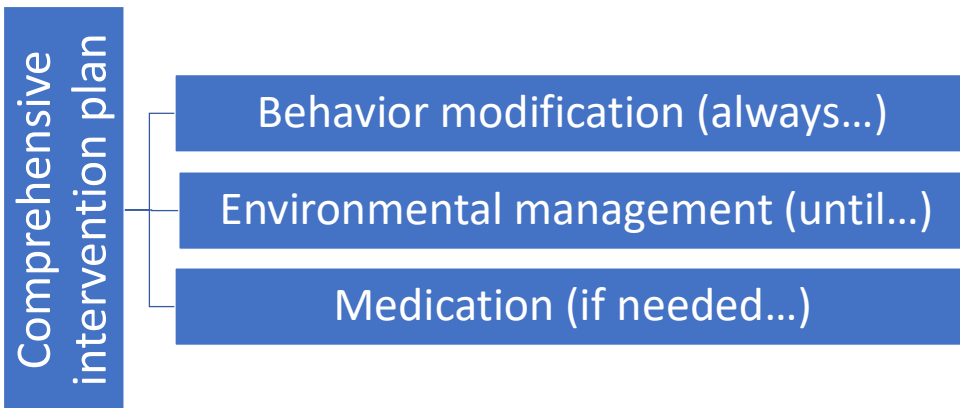
- What, when, where... why
- Predictable? Avoidable?

### Exposure

- Vulnerable targets
- Chaos factor
- Motivation/ability

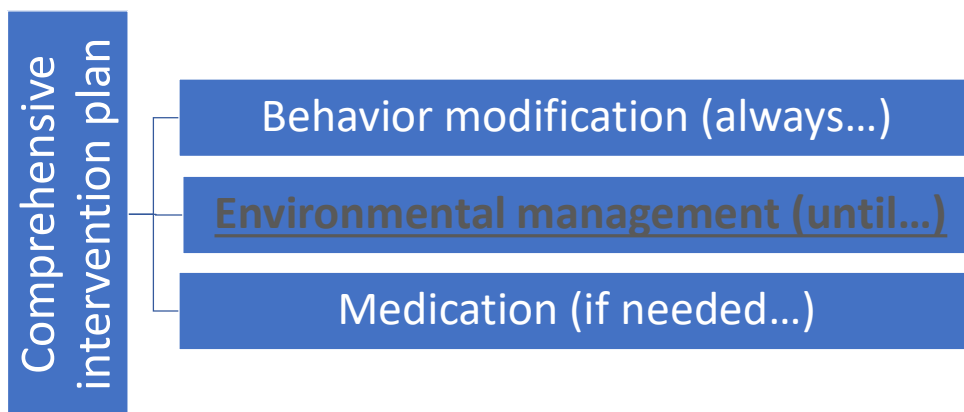
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## “Three-pronged approach”



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## “Three-pronged approach”



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# Pet Factors - Age

- Pediatric onset of aggression
  - Fear motivation is most common
  - Variable response to treatment
- Geriatric onset
  - Rule out pain-related aggression
  - Progressive condition
- Other developmental stages
  - Sexual maturity
  - Social maturity



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## Pet Factors - Size

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- Ability to physical control the animal
  - Impacted by tool use
  - Dependent on handling skills
- Size-dependent potential for injury
  - Consider in relation to the relative size of the aggression target



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## Pet Factors - Breed

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- Far from straightforward ...
- Variable genetic weight for specific behaviors
- Breed alone does not predict future behavior
- Flaws in accuracy of breed identification



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## Pet Factors – Breed

- Ability to proactively use safety tools?
  - Reliability of use (only when present)
  - Comfort and efficacy due to fit
  - Potential for impact on airway
  - Muzzle vs. other options ...

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# Bite History - Severity

- Air snap / head threat
- Light contact
- Skin break / mild bruising
- Punctures
- Lacerations
- Fractures or soft tissue damage
- Internal injury
- Death

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# Bite History - Severity



**Dr. Ian Dunbar's Dog Bite Scale (Official Authorized Version)**

## An assessment of the severity of biting problems based on an objective evaluation of wound pathology

**Level 1.** Obnoxious or aggressive behavior but no skin-contact by teeth.

**Level 2.** Skin-contact by teeth but no skin-puncture. However, may be skin nicks (less than one tooth of an inch deep) and slight bleeding caused by forward or lateral movement of teeth against skin, but no vertical punctures.

**Level 3.** One to four punctures from a single bite with no puncture deeper than half the length of the dog's canine teeth. Maybe lacerations in a single direction, caused by victim pulling hand away, owner pulling dog away, or gravity (little dog jumps, bites and drops to floor).

**Level 4.** One to four punctures from a single bite with at least one puncture deeper than half the length of the dog's canine teeth. May also have deep bruising around the wound (dog held on for N seconds and bore down) or lacerations in both directions (dog held on and shook its head from side to side).

**Level 5.** Multiple-bite incident with at least two Level 4 bites or multiple-attack incident with at least one Level 4 bite in each.

**Level 6.** Victim dead.

**Canine Bite Levels**  
Designed by Dr. Stephen Yin, Illustrated by Lili Chen

**Level 1 (Pho-Bite)**  
Snapping (no bite, no contact)  
Get into before a progression to an actual bite. Do not punish these warning signs as they may encourage the dog to become more confident. Instead, alert the owner of the dog and notify the dog's handler about prior to this situation and the outcome desired.

**Level 2 (Near-Bite)**  
Teeth contact on skin but no puncture  
This near bite is concerning even though it will not be a bite. The dog is in a position to bite. The owner should be alerted and the dog should be removed from the situation.

**Level 3**  
1-4 skin punctures, single bite (all punctures shallower than the length of the canine teeth)  
Even though the bite may not be severe it is still dangerous. The dog is in a position to bite. The owner should be alerted and the dog should be removed from the situation.

**Level 4 (Very Serious)**  
1-4 skin punctures, multiple bites (all punctures shallower than the length of the canine teeth)  
This is a harder bite than a level 3 bite. It is a higher severity bite. The dog is in a position to bite. The owner should be alerted and the dog should be removed from the situation.

**Level 5 (Very Serious)**  
Multiple bite attack with deep punctures or multiple severe lacerations  
This is a harder bite than a level 4 bite. It is a higher severity bite. The dog is in a position to bite. The owner should be alerted and the dog should be removed from the situation.

**Level 6 (Death)**  
Victim killed or death  
It's important to realize that even if the dog is not a level 6 bite, the owner should be alerted and the dog should be removed from the situation.

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# Bite History - Pattern

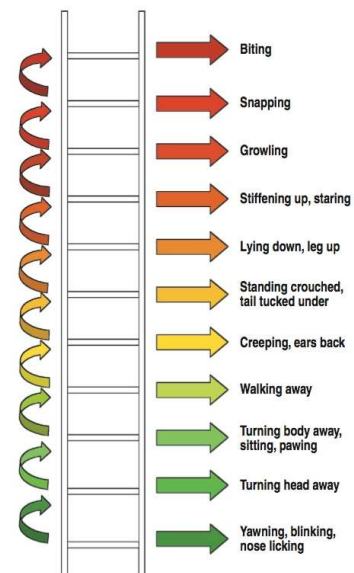
- Location of bite
  - Face, abdomen = greater concern
- Important to differentiate
  - Targeting of specific body areas
  - Facial bite due to leaning or kissing



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# Aggression ladder

- Useful for assessing escalation of intensity
- Specifics of escalation pattern vary
  - Stimulus intensity, speed
  - Option for escape or avoidance
- Identification of dogs with poor bite inhibition based on the circumstances
  - Impact of learning history
  - Impact of arousal
- Singular incidents → challenge to interpret



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## Bite History – Pattern (arousal)

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- Response to benign trigger
- Disproportionate stimulus response
- Lack of recognizable or repeatable warning signals
- Reflects learning as well as underlying medical or neurophysiological factors

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# Context

- Who, what, where, when, and why ...
- Aggression is typically context-specific
- Diagnosis based on historical information, not provocative testing
- Applied behavior analysis
  - Antecedent conditions
  - Behavioral description
  - Consequences



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## Context – Need reliable info!

“Gets angry”

“Goes crazy”



“Attacked”

“Gets mad”

“For no reason”

“Doesn't like it when...”

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# Context

- Predictable
  - Can you identify the triggers for aggression?
  - Are there other factors that affect behavior?
  - Does the dog react the same way each time?
  - Explainable ≠ predictable
- Option to avoid exposure?
  - Predictability of the stimulus itself
  - Frequency of potential exposure



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## Household/Opportunity - Targets

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- Children
  - Activity level, face contact, similar toys
  - Play dates, birthday parties, management interference
- Adults
  - Immune compromised
  - Cognitive or memory deficits
  - Inconsistent implementation



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## Household/Opportunity - Chaos

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- Management style
  - Casual vs. Structured
  - Impact on recommendation implementation
  - Opportunity to interact with possible targets
- Multiple dogs
  - Cumulative arousal
  - Management, training more difficult
- Multiple people
  - Consistency more difficult



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# Household/Opportunity - Ability

- Assess motivation and ability
  - Does motivation, understanding lead to implementation?
  - Timing, mechanical skill, physical ability, etc...
- Avoid making assumptions
  - Assess through discussion, observation and re-evaluation
  - Identification of potential obstacles to implementation
  - Respectful communication



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## Can pet be managed safely?

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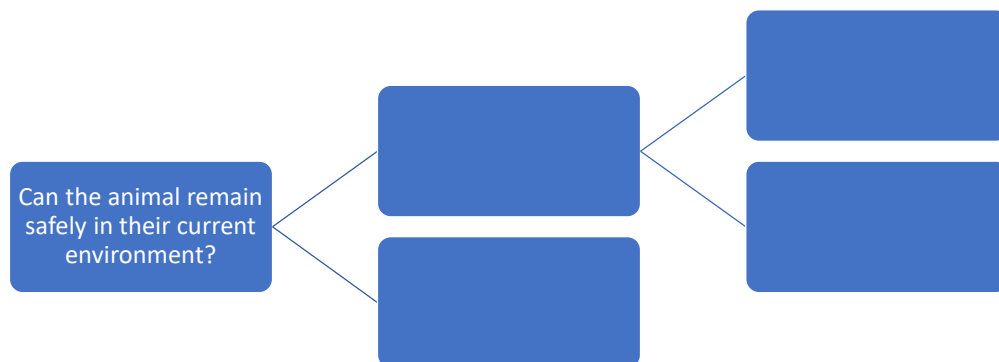
# “Acceptable level of risk”

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- “It depends ...”
  - Mastiff dog, level 2 bite, consistent antecedents, manageable exposure
  - Labrador dog, level 4 bite, consistent antecedents, manageable exposure
  - Small terrier, level 3 bite, variable antecedents, unmanageable exposure
- Generally determined by owner/caregiver
- What is the capacity to provide safe and appropriate care?
- Potential exceptions for “vulnerable populations”
  - Immune/cognitive compromise, children, public safety ...

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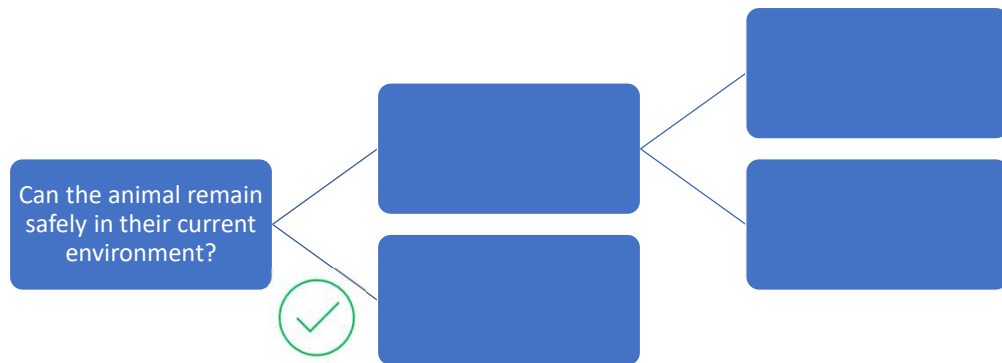
## Decision tree



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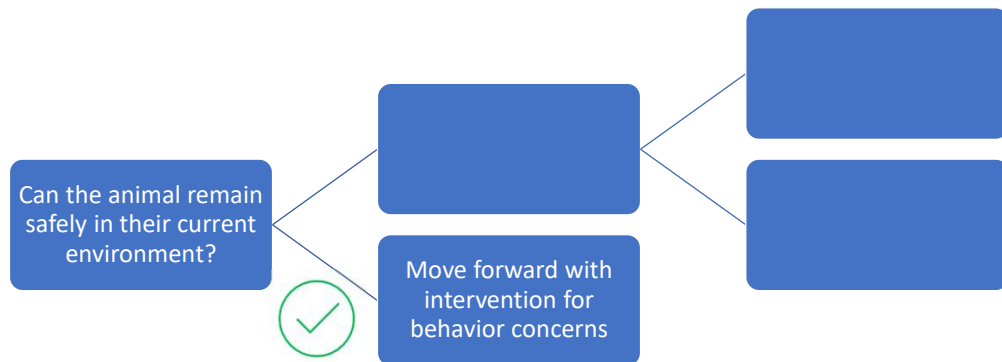


## Decision tree



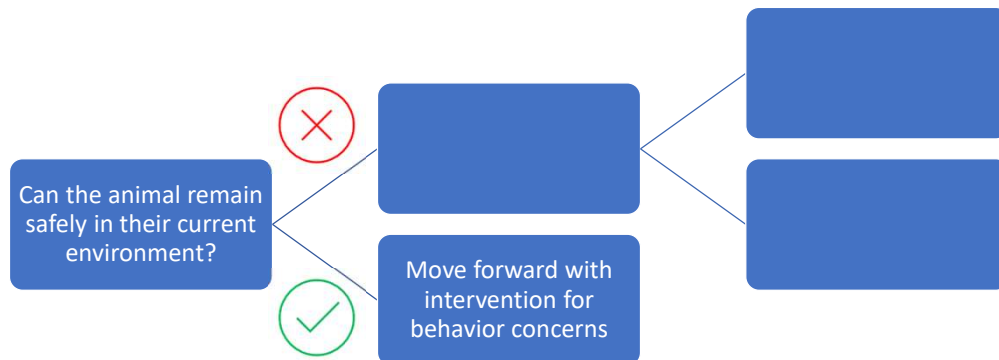
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## Decision tree



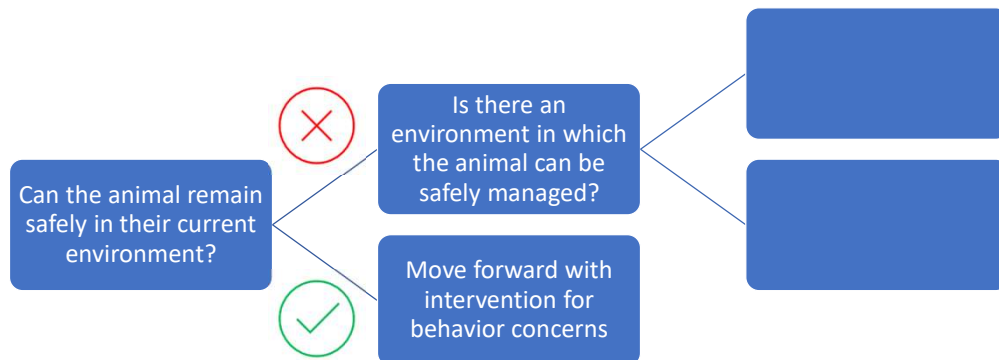
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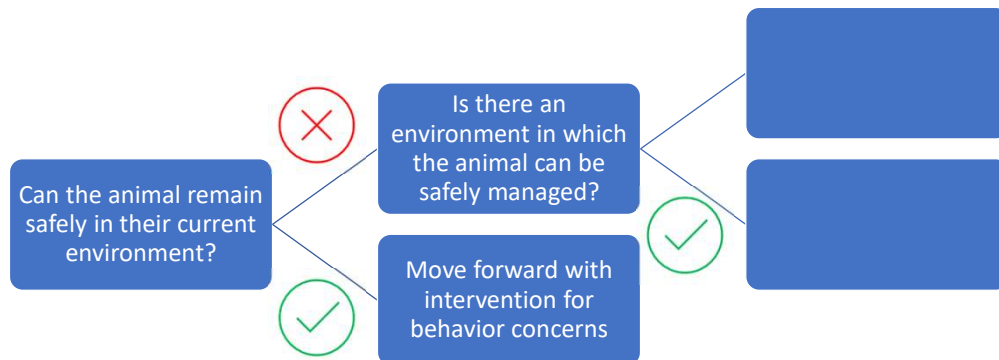
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## Decision tree



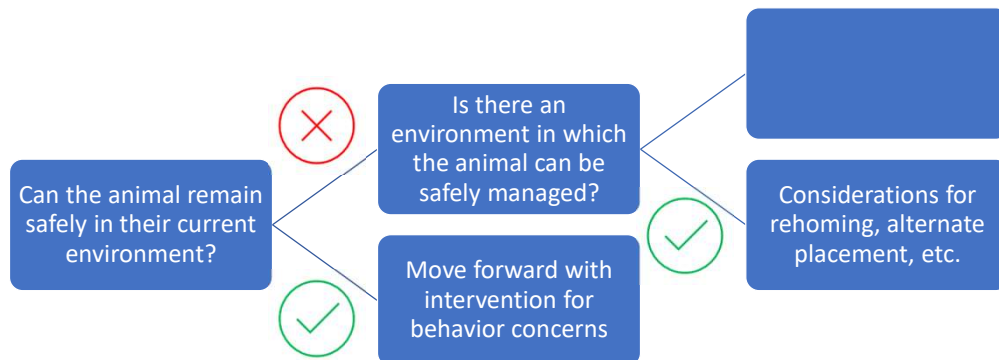
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## Decision tree



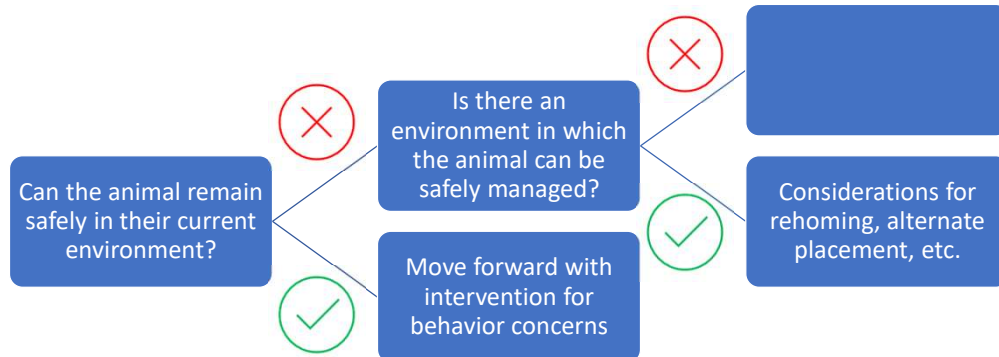
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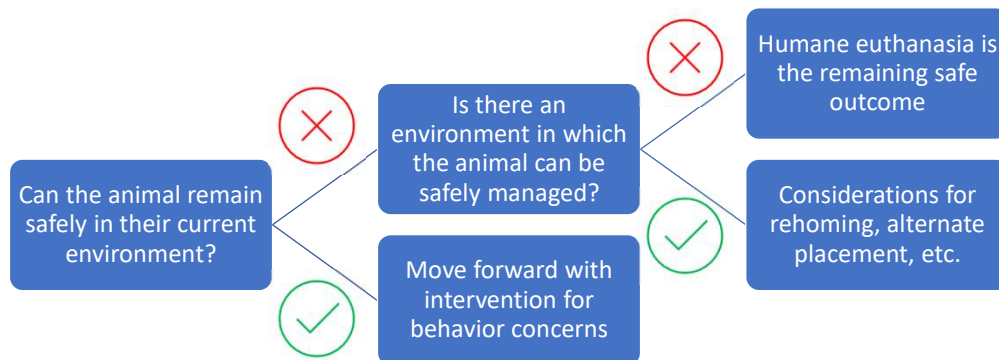
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## Decision tree



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## Decision tree



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## Communication strategies

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- “For the next few questions, I’d like to set aside the emotional aspects of your relationship ... we’ll circle back to that, I promise ... ”
- Ask the initial question when the answer is already known ...
- Be ready to discuss feasibility of rehoming options
  - Current environment, ability, access, etc. makes management unreliable
  - BUT, pet could be managed safely elsewhere under different conditions

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## Communication strategies

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- If not willing/able to consider euthanasia as viable outcome?
  - Circle back to “acceptable level of risk/safety”
  - Accept as inherently “unsafe” or potentially dangerous
  - Expectation setting (likelihood of additional incidents)

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## “He’s amazing 95% of the time ...”

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- Can we identify the 5% when safety/welfare concerns exist?
- Is it possible to mitigate those concern?
- How to base a decision on 5%?
- Medical model
  - Present options and potential outcomes
  - Client makes the decision

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## “Not all help is helpful ...”

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- Responsibility to provide information and perspective
- Ultimate decision belongs to owner/caregiver
- Opportunity to “help” is reinforcing for “helpers”
  - What does the client actually need?
  - Clarity, to be heard [not “the answer”]

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## “Not all help is helpful ... ”

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- “If this was your dog... what would YOU do?”
- Appropriate to ask?
- Appropriate to answer?

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## Additional factors

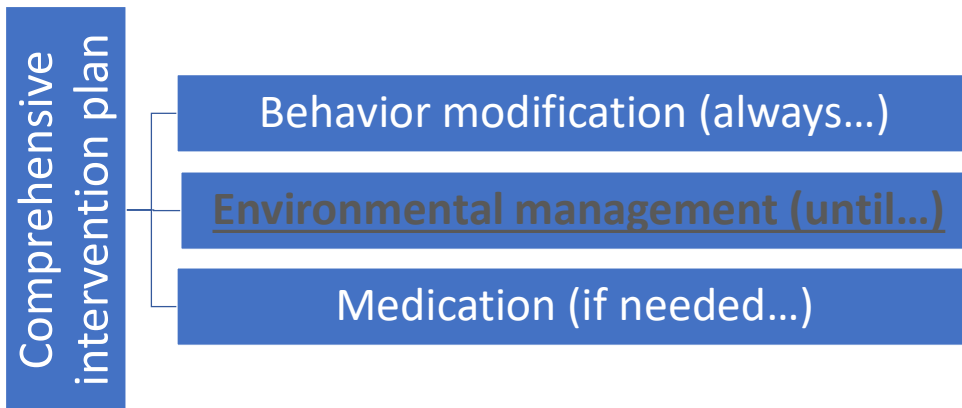
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- Liability of getting involved
  - Insurance
  - Documentation
  - Waiver
  - Client acknowledgement
- Accidental abuse of “power”
  - Relationship and professional role
  - Changes the dynamics of the decision-making process

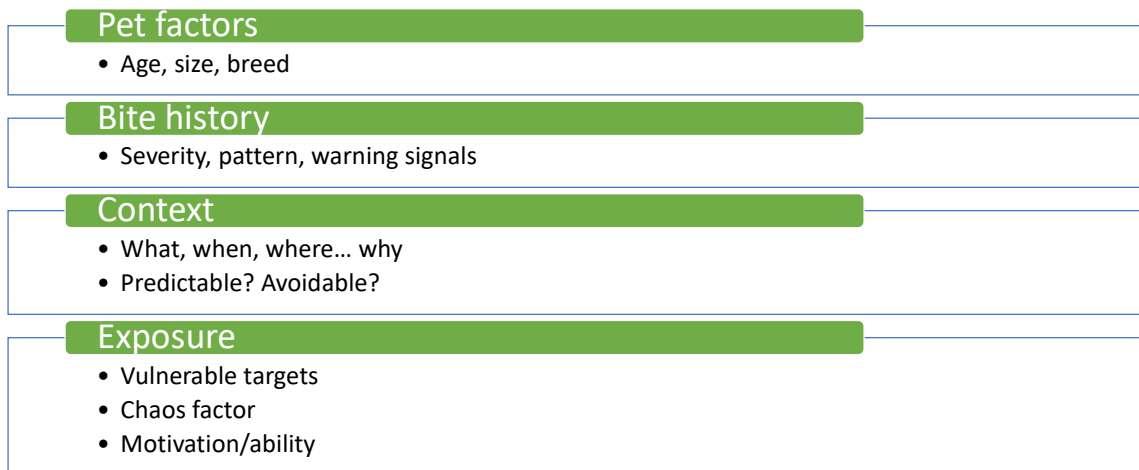
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## “Three-pronged approach”



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## Risk Assessment



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Thank you!

Christopher Pachel, DVM, DACVB



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A photograph of Christopher Pachel, a man with glasses and a light blue shirt, smiling. A brown and white dog is sitting next to him.

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