

## Introduction to Desensitization and Counterconditioning

### What is behavior modification?

Behavior modification may be defined as the process of changing the way an animal behaves. When applied as a treatment intervention for pets that are experiencing behavioral concerns, behavior modification refers to changing the emotional response. Behavior modification can be used to change your pet's response to specific triggers so that she feels more comfortable.

### What is desensitization and how is it used?

**Desensitization** is a behavior modification technique in which an animal is gradually and systematically exposed to a trigger stimulus until the stimulus no longer triggers an emotional response. Desensitization begins with a very low intensity of exposure – low enough that any reaction is minimal. Over a series of sessions, the intensity is gradually increased until there is no emotional response, even when the stimulus is presented at full intensity.

Desensitization is an effective behavior modification technique for treatment of fears. For example, if your pet is afraid of a specific noise, such as a coffee grinder, the grinder can initially be placed into a padded jacket to muffle the sound, and your pet can be placed far enough from the grinder that he is not frightened.

### What is counterconditioning?

**Counterconditioning** is a behavior modification technique in which a stimulus that creates a negative emotional response is paired with something known to create a *positive* emotional response in the animal. Tasty food treats are commonly used to create a positive emotional state. If your pet is playful, toys and games can also be used to create a positive emotion.

For example, if your pet is frightened when cars drive by (a negative emotional response), you may induce a positive emotional state by giving him a very tasty treat each time a car passes by. It is sometimes helpful to ask your pet to engage in a specific behavior while you deliver the treats. For instance, many cats and dogs are most comfortable sitting or lying down for their treats.

As a variation, pets can be conditioned to experience the emotional state of being calm – the “zen experience” of being in the spa – through relaxation exercises such as “settle on your mat” training. Practice conditioning your pet to settle when she is not frightened, until she begins to relax as soon as you show her the bed and ask her to “settle”.



## How are desensitization and counterconditioning used together?

For pets experiencing a strong emotional response to a stimulus, counterconditioning alone is often not enough. A more effective strategy is to combine desensitization with counterconditioning. By pairing the two techniques, you can control the intensity of the reaction with careful exposure (desensitization) to ensure that your pet is not frightened, while at the same time making the exposure pleasant by adding counterconditioning.



## How long does it take for desensitization and counterconditioning to work?

Desensitization and counterconditioning can take a few hours, a few weeks, or even a few months, depending on the level of the emotional response.

It is important to take your time. Do not continue with a session if your pet shows signs of fear or arousal. One sign that you are moving too quickly is if your pet is no longer readily taking treats or settling on cue. Continuing exposure when a pet is uncomfortable can result in an exaggerated response to the stimulus during a future exposure. This is known as **sensitization** and is a risk of using this technique.

If you believe your pet is becoming sensitized (having a bigger reaction than before you started the training), or if you feel you are not making progress, take a break until you can consult with a behavior professional. A veterinary behaviorist may recommend an adjustment to the technique or may even recommend medication to help your pet learn more efficiently.

## What are some ways to control the intensity of a stimulus?

- Manage the **distance** from the trigger, beginning from far away and gradually getting closer.
- If the trigger is a noise, adjust the **volume**, going from low to high.
- If the trigger is a moving object (such as a bicycle), change the **speed** at which it moves, working from slow to fast.
- Break the trigger up into **components**. Some triggers are composed of multiple parts, such as sound, motion, sight, and smell. For example, if your pet is afraid of the vacuum, begin with the vacuum turned off and placed far away. Next, turn on the sound while the vacuum is far away. After that, add movement while the vacuum is far away.

## What is response substitution?

Response substitution is a behavior modification technique in which a pet that exhibits an undesirable behavior is taught to exhibit an alternative behavior. The alternative behavior should be incompatible with the original behavior; that is, the two behaviors cannot be done simultaneously. For example, it is not possible to both sit and jump up at the same time, making those behaviors incompatible.

Response substitution is most useful in situations that cause only a low or moderate emotional response. For example, dogs that are excited to greet people often jump up on them. You can use response substitution to teach your dog to sit rather than jump. Similarly, dogs that bark when guests arrive can be taught to lie down on a mat until the guests have settled.

To train the alternative response, it is important to use a high value reward. Behaviors that are rewarded will be repeated. Positive reinforcement-based training will ensure that your pet continues to exhibit the appropriate behavior consistently, over time.

## What does a desensitization and counterconditioning session look like?

It is important to practice desensitization and counterconditioning at least twice weekly; daily is even better. Depending on the stimulus, a session might last anywhere from 5 minutes up to 45 minutes, and should not be stressful. Always end on a positive note. Watch for signs that your pet is distressed: panting, trying to escape, trembling, barking, or becoming excited. If you see these signs, end immediately and lower the intensity of the stimulus for the following session.

After two to three successful sessions, you may increase the intensity of the stimulus very slightly for the next session. Here is an example of how to set up a session for a dog that is afraid of bicycles:

### Preparation:

1. Identify the “stimulus” (e.g., a bicycle passing).
2. Identify the desired behavior (e.g., sitting).
3. Identify something that prompts a happy emotional response (e.g., tiny, delicious treats, like hot dog pieces).
4. Manage the intensity of the stimulus for desensitization. In this case, you can control the distance and speed of the bicycle to prevent an intense reaction.

### Implementation:

1. Start at a non-stressful or non-reactive point (e.g., stand 100 feet away from a bicycle that is not moving).
2. Feed treats to pair the presence of the bicycle with a positive emotion.
3. If your dog is comfortable and eating consistently, ask for a behavior such as sit and reward your dog for sitting 100 feet from the bicycle.
4. Move a few steps closer to the bicycle and repeat. Be sure your dog is still comfortable enough to sit and accept treats.
5. Stop the session before your dog shows signs of stress.
6. If your dog does appear distressed, move him away until he is relaxed and either end training or, if his reaction was mild, resume at a lower intensity (e.g., further away).
7. Over time, gradually increase the intensity of the exposure to the bicycle.

### Sample progression:

1. Stand far from a bicycle that is not moving.
2. Gradually move closer to the stationary bicycle.
3. Stand far away from a bicycle that is moving slowly.
4. Gradually move closer to the slow-moving bicycle.

Continue this pattern until your dog is easily able to sit for treats, even when sitting close to a bicycle that is moving at full speed.

## When can desensitization and counterconditioning be used?

Desensitization and counterconditioning can be used in any situation where your pet is fearful or anxious, to accustom her to the stimulus. It allows you to gradually increase the level of the stimulus and pair each exposure with a favored reward.

Whether your pet is fearful of noises, flooring, steps, situations, or handling (e.g., grooming, brushing, hugging, lifting), desensitization and counterconditioning can change the fearful or anxious mood into one that is positive.

## What if it's not working?

Using behavior modification can be tricky for all but the mildest of emotional responses. It is always helpful to work with a professional who has had experience managing the timing of rewards as well as the intensity of the triggers. It is fine to try these techniques on your own, but if you are not making progress, take a break and contact a behavior expert. Talk to your veterinarian or to a veterinary behaviorist if you are concerned about your pet's fear or frustration; often, medication can be added to the behavior modification program to improve the outcome.

*© Copyright 2023 LifeLearn Inc. This content was written by LifeLearn Animal Health (LifeLearn Inc.) and is licensed to this practice for the personal use of its clients. Copying, printing, or further distributing this material is prohibited without LifeLearn's express written consent. The use of artificial intelligence or automated tools to rewrite, republish, adapt, or repurpose this content, in whole or in part, is prohibited and does not create any ownership or derivative rights. This content does not contain all available information about medications and has not been reviewed by the FDA's Center for Veterinary Medicine or Health Canada's Veterinary Drugs Directorate. This content is not a substitute for medical advice or a proper clinical examination. Please contact your veterinarian if you have any questions or concerns about your pet's health. Last updated on Nov 29, 2023.*