



SCENT DETECTION CER & INDICATION Level 1

Goal: Dogs have amazing scent capabilities and can pick up smells that we don't know exist. When teaching them to alert to a specific smell (VOC= Volatile Organic Compound), our job is to make that smell stand out from all the others in the environment and teach the dog to respond in a specific way as soon as he/she detects that smell. The following protocol is the first step to any detection task, such as, but not limited to, diabetes and seizures or even emotional changes like panic and anxiety.

CER = Conditioned Emotional Response. This protocol is aimed at triggering an emotional response in the dog to a specific smell.
Indication= We'll teach the dog a specific behavior that will let us know that they have located the scent. We'll teach the dog to maintain their nose close to the source for about 6 seconds. This behavior is what we call the **"indication behavior."**

Material: clicker, high value treats, scent, vials or tins with holes, cans

Collecting the Scent: Collect the scent from the person the dog will be alerting to. As the person experiences a "Low" glucose event, a seizure or any other medical or emotional episode, wipe a cotton ball across the person's forehead and on the back of their neck. Place the cotton ball in a Ziploc bag. Repeat 2-3 times. You should have a total of 3-4 cotton balls per bag. The person should then blow in the bag. Seal the bag. This way you'll be collecting both skin swab and breath samples at the same time. Make sure to write down the date, the name of the person and the event on the bag ("Low", "Seizure", "Anxiety"). In case of diabetes, write down the blood glucose levels at the time of collection. Store the samples in the freezer until you are ready to use them. Once you take a cotton ball out to work with your dog, place it in the refrigerator after each training session.

TRAINING PLAN		
1.	Conditioning an Emotional Response	We'll start with pairing the smell with treats, so the dog develops a strong emotional response to the smell. Smell = treats (yeah!!). For all the scent tasks, you'll be using high value treats. It's even better if you don't use those for other behaviors. This will increase the dog's appeal for the task. Place the targeted samples (collected during the episode) in a vial or a tin. Present the smell to the dog. As soon as the dog puts their nose on it, reward! You can use a clicker but at this stage it may be easier to use the word "Yes!" as a marker, then treat at the source. Treat at the source means to give the treat to the dog right on top of the smell (right above the tin). Repeat this step about 10 times. If you are experiencing "live" events, also pair those events with high value treats so the dog learns to pay attention to them.
2.	Placing the tin inside a can	Place the tin in a metal can and place the can on the floor in front of you. Click and treat any movement of the dog towards the can. Gradually increase your criteria until the dog confidently places their nose inside the can (only the tip of



		the nose) or right above it (if you're using a candle tin). Click and treat multiple times right over the can, keeping the dog's nose right above it. It's easier if you're squatting down, right next to the can, simply clicking and treating the dog for putting their nose over the can. Repeat a few times. The goal here is to encourage the dog to stay right by the can with minimal movements, only focusing on the dog's nose.
3.	Developing the Indication behavior - building duration	Once the dog starts staying over the can, start delaying the click for 1-2 seconds. Look for moments of stillness over the can. Once the dog starts holding their nose still over the can, wait for longer and longer periods of time until the dog maintains the position for up to 6 seconds before you reward. It's important to increase the duration randomly, so you might click and treat at 4 seconds, then 2 seconds, then 5 seconds, etc.
5.	Adding the cue	Say the word "Check" as the dog starts heading towards the can. This cue will be used to trigger an immediate search of the smell.
4.	Building distance	Take a step or two away from the can. Once the dog goes to the can, puts their nose over the can, wait 3-4 seconds, click, then give the dog a treat 1-2 feet away from the can (setting the dog up to go back to the can). Gradually increase your distance to the can until you can stand 5-6 feet from the can. At this point, the dog should be running back and forth between you and the can. If not, reduce your criteria, move closer and make it easier for the dog before you build the distance back up. If your dog loves tugging on a toy or chasing a ball, you can also click and play. Only use a toy if you have good control of the game, in other words, that you can easily get the toy back after a few seconds. When the dog is reliably going back to the can, increase the duration of the indication behavior (head in can) to 4-6 seconds.
5.	Building distractions	Gradually increase the level of distractions. Tap on the wall as the dog runs to the can and keep tapping until the dog gives the behavior. In other words, if the dog comes running to you instead of the can, ignore the dog, keep tapping and give them time to decide to go back to the can. Walk in place, raise your arms up in the air, etc. Make sure to keep moving your position around the can. Slowly build up the level of distractions by including another person or another dog.
6.	Changing your position	Start changing your position to the can. Stand up and move around the can, changing the angle to the can. You can also start varying your position and sit on a chair.
7.	Generalization & hiding in the environment	Repeat the steps in different areas. Make it easy at first and make sure the level of distractions is very low. Start hiding the scent in the room, in plain sight at first, then hidden. Make it a game for the dog to go look for the scent.
8.	Fluency	Gradually build up the level of difficulty until you can successfully get your dog to go put his/her head in the can, in different places and with different levels of distractions.

CONGRATULATIONS! If you've come this far, you have developed a solid foundation to scent detection and have successfully prepared the dog for the next step: Discrimination.