



# CARD 4E MODEL:

A guide for providers of medical procedures

The **CARD system (Comfort, Ask, Relax, Distract)** is a framework that can be used for planning and carrying out medical procedures involving needles. Each letter category (C-A-R-D) includes evidence-based activities that health care providers, patients and families can play to reduce pain, fear and other stress-related responses (i.e., headache, nausea, dizziness, fainting). Using CARD improves the experience for patients, families and staff.

Learn how to integrate CARD in your practice setting using the **4E model (Education, Environment, Engagement and Evaluation)** as a guide. For more information and resources, you can visit [CardSystem.ca](http://CardSystem.ca).

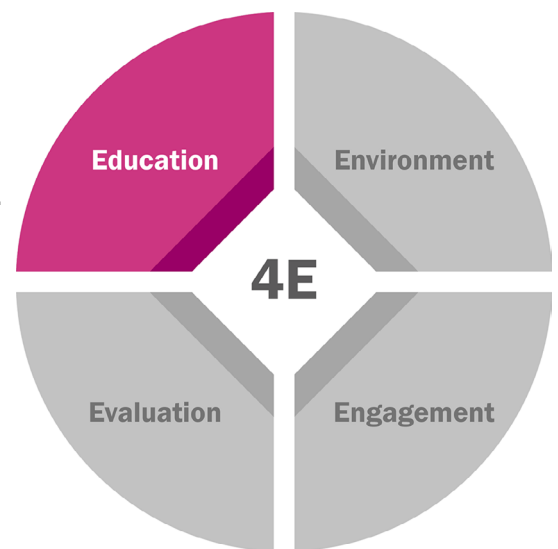
## EDUCATION:

### BEFORE PROCEDURE DAY

- **Staff:** Review information about CARD and share with staff (e.g., [CARD planning checklist](#), [CARD procedure day checklist](#)). Plan for how to integrate CARD into your practice setting by selecting options. Consider feedback obtained from patients about how to make procedures a more positive experience for them. Integrate the information into your policies and procedures.
- **Patients:** Provide information about CARD (e.g., via [CARD checklist](#), [CARD fact sheet](#) and [CARD poster](#)) to patients at various times over the appointment process, such as at the time of booking and at appointment check-in. School-age children can play the [CARD web game](#). These resources contain information about what to expect and available coping strategies in the different letter categories of CARD.

### ON PROCEDURE DAY

- **Staff:** Review CARD with staff and implement selected tools and processes.
- **Patients:** Use the CARD checklist at appointment check-in to record demographic information (including the level of fear) and coping strategy choices. The completed CARD checklist can be used to guide the appointment. If [topical anesthetic](#) is checked off, staff can explain the required waiting period (e.g., 20 to 30 minutes for Maxilene™ and Zensa™; other products take longer). Assist with topical anesthetic application and give options to leave and return or engage in a distraction activity while waiting.
- If patients identify a history of fainting, counsel them regarding the prevention of fainting using [muscle tension](#) (and supine positioning).



Financial contribution from



Public Health  
Agency of Canada

Agence de la santé  
publique du Canada



Scan for more  
resources >



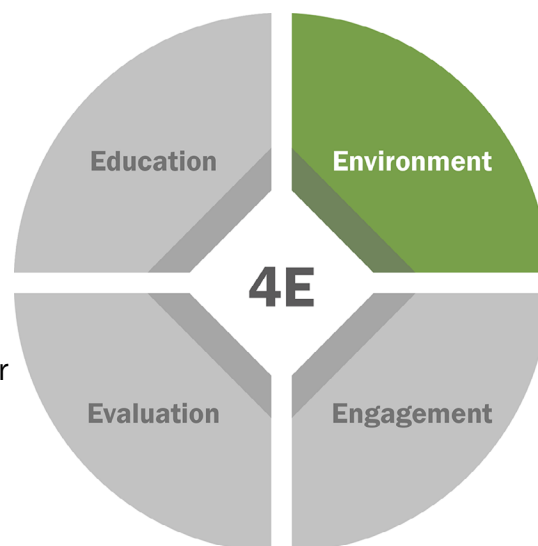
## ENVIRONMENT:

### ALL AREAS

- Have separate waiting areas for pre-procedure, procedure and aftercare areas with chairs available for patients and a caregiver/support person.
- Prepare the environment to be inviting to patients. Hang up age-appropriate CARD posters (for [teens/adults](#) and for [children](#)) and directional signage. Place items at eye level for patients. Consider having footprint decals on the floor with pre-set distance (2 metres) to specify clinic flow. Ideally, there is one-way flow through these areas.
- Provide age-appropriate distraction items and activities for patients (e.g., [search and find posters](#), [mazes](#), [colouring pages](#), [connect the dots](#), distraction posters, pipe cleaners, fidget spinners, squishy balls, treats/rewards). Have these items available for patient use at any time during the appointment. Contain items in bins and moveable trolleys/carts to facilitate access. Include clipboards and writing tools for easy use for writing activities (e.g., colouring pages) as many areas do not have tables.
- Have topical anesthetics available for those that want to use them.
- Ensure safety measures are in place to prevent transmission of infectious diseases (e.g., sanitization items).
- Have calming background music to increase comfort and minimize auditory fear cues (clinic rooms are typically not soundproof).
- Allow patients to remove extra clothing before entry into the procedure rooms (coats and sweaters) to prevent over-heating and to expedite the procedure by allowing easy access to the site (anxiety builds with time and having to disrobe in the procedure area).

### PROCEDURE AREA

- Have a private room available with a door that is closed during procedures. If a private room is not available, simulate one by using a privacy screen coupled with a sound machine (white noise or music).
- Ensure the procedure room is tidy and free of clutter.
- Have comfortable seating in the procedure room with the ability for patients to lie down if they are feeling dizzy or unwell (e.g., exam bed, gym/exercise mat, reclining chair, camping pad).
- Have separate waiting areas for pre-procedure, procedure and aftercare areas with chairs available for patients and a caregiver/support person.
- Obscure frightening equipment such as needles (e.g., place table-top poster displays in front of needles, obscure sharps container with CARD poster and put sharps container in front of needles). Arrange the seating so the patient faces something interesting and engaging (e.g., age-appropriate CARD distraction items). Do not have patients face needles and equipment; staff can face the equipment.
- Ensure the workflow and processes, including dose preparation and injections, do not make the needles prominent or in view (e.g., do not wave needles in the air or lay them down in front of patients). Draw up doses away from the patient and obscure them from view.
- Have age-appropriate distraction items and activities available in the procedure area. These can be taken away by patients, tossed away or wiped down between uses, as appropriate.



## ENGAGEMENT:

### ALL AREAS

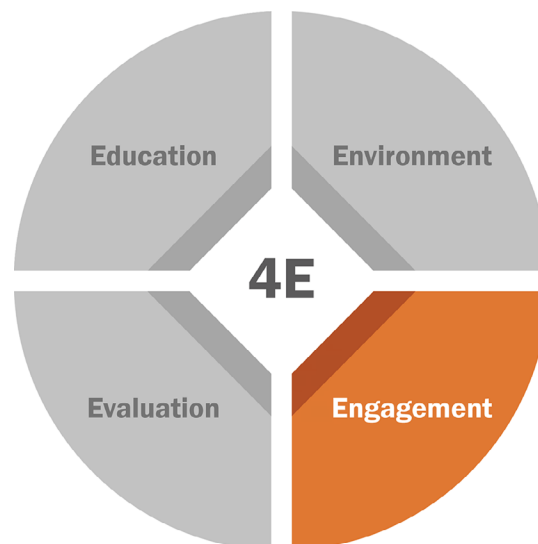
- Greet patients with a smile and acknowledge all children, not just their parent/guardian.
- Don't appear rushed. Focus your attention on the patient.
- Use [what to say](#) resource and [engagement](#) resource for communication tips (e.g., communicate using neutral language, be positive, invite patients to participate).

### PRE-PROCEDURE (WAITING) AREA

- Review the patient's completed CARD checklist to screen for fear, history of dizziness/fainting and accommodations that need to be made to support coping choices.
- Assist with topical anesthetic application if selected as a coping strategy. Provide distraction items and activities to patients while they are waiting for the anesthetic to work or allow them to leave the area and return. Incorporate other activities into waiting time to prevent falling behind schedule.

### PROCEDURE AREA

- Review the patient's completed CARD checklist to guide interactions. The CARD checklist contains information about the patient's fear level and coping choices. If the patient identifies as being moderately or very fearful of needles, involve other highly qualified staff during the procedure (e.g., child life specialist).. Prepare spaces and items to support selected coping choices.
- Carry out procedures independently and privately. Children are usually accompanied by a parent/guardian. Note that anxiety typically increases if witnessing others getting needles, particularly for children.
- Avoid interruptions during procedures.
- Confirm selected coping strategies from the CARD checklist with the patient and implement them with the patient (if they are young, then implement with child and parent/guardian). Avoid long discussions which prolong the appointment and increase fear and anxiety. The CARD checklist replaces long discussions and increases efficiency.
- Have patients sit on a chair facing away from equipment and supplies. Ensure age-appropriate distractions and activities (e.g., search and find poster) are in view and available for use.
- Use the CARD checklist to inform patient-preferred positioning. Younger children can choose to sit on a caregiver's lap. Use [comfort positions](#) that allow children to be upright and secured so their limbs can be accessed for the procedure. The position used depends on the child's age and level of fear. Younger and more fearful children can sit on a parent/guardian's lap in a chest-to-chest hold, back-to-chest hold or a side-sitting hold. Refrain from restraining children as this increases distress.
- When possible, incorporate patient preferences for the part of the body that will involve the procedure. Pick the non-dominant arm if the patient does not have a preference. Position the patient to ensure that the limbs are accessible; involve parent/caregiver, if needed.
- Sit down on a chair near the patient during the procedure. Sitting down places the health care provider at eye level with the patient which promotes relaxation.
- Ask patients if there is anything you can do to help them cope.
- Ask the patient to keep their limb loose and jiggly, but still.



- Coach the individual during the procedure, if needed. For example, if the patient chose a strategy and does not appear to be following it and is getting more visibly distressed, ask them about it. Review their coping plan and invite them to change it if they want to.
- If the individual is not coping well (escalating fear), offer some directed coping, for example, ‘Do you want to try deep breathing’ or ‘Do you want to press a bubble blower and catch the bubbles.’ Do not impose coping strategies, do not act upset or frustrated, and minimize discussion as these strategies can escalate fear further. Allow patients to end the procedure if they are unable to be successful. Consult with patients, families and staff for next steps.
- End the visit on a positive note by thanking the patient. Congratulate them on the coping strategies that they used. Examples of rewards include; stickers, certificates, candy.

## EVALUATION:

- Ask patients (including children and parents/caregivers) to fill in [patient feedback surveys](#) after the procedure to report on their symptoms and experiences.
- Ask staff to provide feedback ([staff feedback surveys](#)).
- Review patient and staff feedback to inform future practice.

To see research publications and related topics on the CARD system, visit [HelpNeedlePain.ca](http://HelpNeedlePain.ca).

