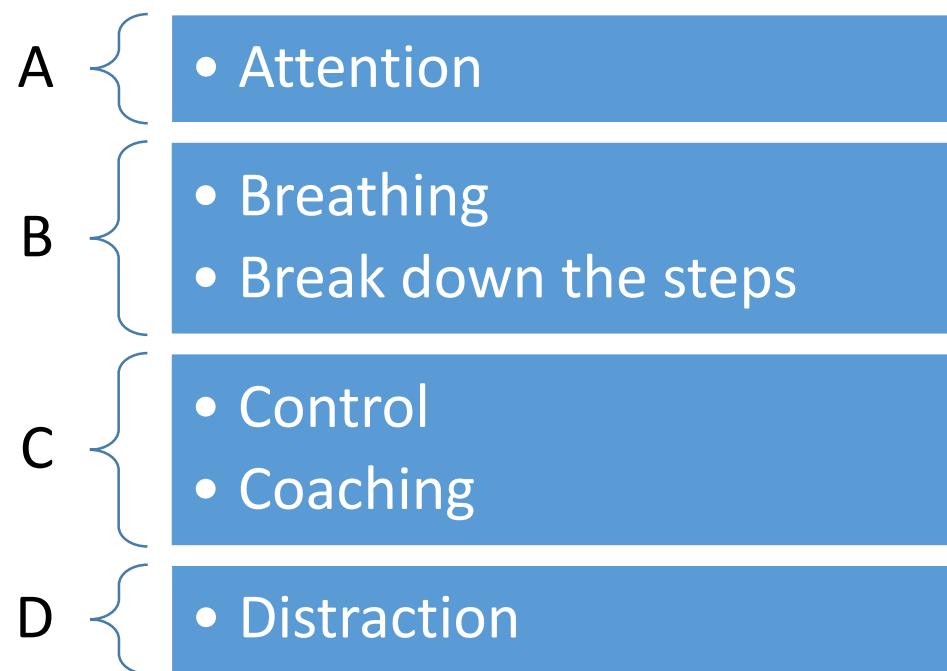


4.5.2 Psychological interventions

Psychological interventions for procedural pain management are considered a non-pharmacological intervention that promotes comfort.

Psychological interventions provide the opportunity for children to rehearse and incorporate coping strategies for managing procedural pain and enhancing a sense of mastery over the procedure [7].

The strongest support exists for combined cognitive-behavioral interventions [34]. We recommend utilizing a combination of interventions following the A, B, C, D approach.



Attention

Find out something important to the child and engage them in non-procedural talk.

Direct the child in preparing for the procedure and engage their coping mechanisms.

Breathing

Focusing on breathing fully and deeply moves children out of their sympathetic nervous system (fight or flight) into their parasympathetic nervous system (relaxation and calm).

The aim is to have children breathe slow, deep, rhythmic breaths [12].

Breathing exercises can be taught to children \geq 3 years [34].

Examples of simple breathing exercises include:

- Blowing away the hurt/pain
- Belly breathing
- Blowing bubbles
- Instructing to take a deep breath at time of injection
- Pin wheels

For children \leq 3 years of age coach the parent to maintain calm breathing during the procedure. Having the child lean on the parents chest may help as the child can feel the calm breathing of the parent.

Break down the steps

Providing children with information about (1) what to expect and (2) instructions on what they need to do during a medical procedure can reduce anxiety [35].

Break the procedure down into steps to encourage a sense of mastery during each stage of the medical procedure.

An example of breaking down the steps of the medical procedure:

The first step may feel cold as we clean

The second step will be me counting 1,2,3 and that is your cue to take a deep breath

The third step will be the injection

The fourth step will be a band aid

The 5th step will be choosing a sticker

Give control wherever possible

Children should be supported to be active participants during medical procedures. Consider what the child can do for themselves. Some examples of this include:

- Take off the topical anaesthesia and wash with a parent
- Remove tapes and bandages
- Hold the band aid

Empower the child with choices for how the medical procedure will be conducted. Giving children some choices over how the medical procedure is conducted can develop a sense of control and increase compliance with the medical procedure. It is important that choices presented to children are realistic.

Examples of appropriate choices

Would you like to watch or look away?

Would you like to sit up in the chair by yourself or on mum's lap?

Which arm would you like me to take your blood pressure on?

Clinical tip

Choices presented to children also need to be balanced as if a child has too much control then they may use delay tactics:

- Avoid telling a child that you won't start a procedure until they are ready or they may never be ready.
- If a child delays a necessary medical procedure then direct them to engage their coping skills and provide contained choices.
- It may be helpful to determine the number of breaks a child may require and for how long with the child and procedural support team before the start of the procedure

Example of a balanced choice

Take 3 deep breaths then it will be time for the injection. You can squeeze my hand or you may prefer to blow some bubbles.

Procedural coaching

Children may not have had opportunities to develop helpful strategies to cope with procedural pain and distress and can benefit from adult coaching during medical procedures [36].

Key attributes of a procedural coach [13]:

- Is sensitive to the child's developmental level and cues for expressing pain and pain-related distress.
- Encourages the child to identify preferred ways of coping during a medical procedure
- Empowers the child to use their coping skills.

Support children to attain mastery over medical procedures:

- Give children honest information about the procedure.
- Acknowledge children's feelings about the medical procedure and reassure that it is ok to feel sad, mad or disengaged.
- Provide options for children to work with their feeling about the medical procedure.
- Instill confidence and practice positive coping strategies.
- Advocate for children to have a voice about their medical procedures.

Clinical tips

- Develop a procedural plan with the child to help them voice their preferences for managing pain.
- Document the procedural plan in EPIC and their medical notes.
- Have the child bring a printed version of their procedural plan to hospital with them. The child can hand their procedural plan to health professionals. For inpatients, place a plan above their bed

Link: procedural support checklist

<http://www.rch.org.au/uploadedFiles/Main/Content/comfortkids/Procedural.Support.Plan2015.pdf>

Coping and distress promoting behavior

A procedural coach encourages coping behavior and reframes behaviors that promote distress [37, 38].

Table: Examples of coping and distress promoting behavior

Coping promoting behavior	Distress promoting behavior
Engaging the child during medical procedures	Criticism
Instructing children to use positive coping strategies	Reassurance (it's ok, almost done)
Using distraction	Empathy
Non-procedural talk	Using negative words such as "hurt", "burn" and "sting"

Clinical tip

Be a positive role model for the procedural support team. If you notice distress promoting behavior reframe it.

Table: Suggestions on how to reframe negative words [39]

This medicine will burn

- Some children say they have a warm feeling

I am sorry

- You are doing so well

This might hurt

- You may feel something. If you do you can help your body to stay comfortable by using that special breathing that you have learnt.

- We are here to help you feel comfortable. Just let us know if something bothers you.

Empower parents

Parent involvement in medical procedures can significantly reduce child distress as long as the parents are promoting coping behavior [37].

- Coach parents to be positive assistants during the medical procedure.
- Prepare parents for medical procedures and give them an important role.
- Support the parent and child relationship by ensuring parents do not need to break their child's trust.
- Involve parents in planning for medical procedures so they know what to expect.

Clinical tip

Encourage parents to be prepared:

- Have parents apply topical anaesthesia at home if appropriate.
- Ask parents to bring their child's favourite toy or book

Distraction

There is strong evidence that distraction significantly reduces children's pain and distress associated with medical procedures [40].

Distraction is an effective and simple way of reducing fear, anxiety and pain associated with medical procedures and of helping children cope[24]. The aim of distraction is to take the child's mind off the procedure by concentrating on something else more pleasurable.

Distraction can also reduce distress by minimising the child's sight of the medical procedure ie. using a large book to contain the view a child has of the medical procedure being conducted.

When using distraction it is important that:

- It suits the age and developmental level of the child
- The distraction is engaging and interactive

Table: examples of appropriate distraction based on the age and development stage of the child:

Babies	Toddlers	Pre-School	School age	Adolescents
Breast feeding	Comforter: e.g. dummy, blanket, favourite toy	Comforter: favourite toy	Non-procedural talk about favourite topics	Non-procedural talk about favourite topics
Watching bubbles	Textured toys e.g. squishy balls Imaginary play Popping bubbles	Textured toys e.g. squishy balls Imaginary play Popping bubbles	Humour	Humour
Relaxed breathing of caregiver	Blowing the hurt away Blowing bubbles	Blowing the hurt away Blowing bubbles	Breathing & relaxation	Breathing & relaxation
Singing and music Music therapist	Singing and music Music therapist	Singing and music Music therapist	Ipod Music therapist	Ipod Music therapist
Sucrose and non-nutritive sucking	Computer game/DVD/iPad	Computer game/DVD/iPad	Computer game/DVD/iPad	Computer game/DVD/iPad
Rattle/Shaker	Sound/pop-up books	I Spy/Sound books	I Spy/ Where's Wally	Prompt cards and conversation starters

Clinical tips on using distraction with children

- Plan for the use of different approaches for distraction during the procedure in case the child becomes bored with the distractor. As a guide, it is helpful to have 2-3 options prepared.
- If a child becomes increasingly distressed you may need to introduce a new distractor to attract their attention.

- Children may want to disengage with the distractor to check in and look at the procedure. Be mindful of what they will see. Use distractor equipment to shield the view of the medical procedure if appropriate for the child.
- Remember to maintain the trust of the child and the family when using distraction. Distraction is not meant to trick children. It is a tool to help children cope with medical procedures.
- Not all children find distraction helpful for managing procedural pain. For these children using distraction can increase procedural distress.

Distraction equipment

You do not need to provide a great deal of fancy equipment to provide effective distraction for children.

If your department needs equipment for distraction boxes then please contact:

- Comfort Kids
http://www.rch.org.au/comfortkids/contact_us/Contact_Comfort_Kids/

Using technology for distraction with children

In this digital age, many parents and children present to hospital with smart phones or tablets that you can use to your advantage for distracting children during medical procedures.

Follow this link for a paediatricians top APPs for paediatric procedural pain management

<http://noneedlesspain.org/a-pediatricians-favorite-top-10-apps-for-pain-management/>