

Resources Relevant to the Administration of Injections to Young Children (Ages 2-5)

Updated September 2022

As of September 2022, pharmacists who are certified to administer drugs and vaccines by injection are authorized to administer only **COVID-19 and seasonal influenza (flu) vaccines** to individuals two (2) years of age and older. At this time, the expansion to administer vaccines down to age two (2) is only for Health Canada approved COVID-19 vaccines and flu vaccines that are part of Manitoba's annual Seasonal Influenza Immunization Program. For all other vaccines, the age of administration remains at age seven (7) years and older.

Articles and Guidelines

Resource	Notes	Publication Year	Relevant Ages	Link
Alberta Health Services: Standard for the Administration of Immunizations	<p>"Section 5: Client Position and Stabilization" reviews positioning for vastus lateralis and deltoid injections for infants and toddlers.</p> <p>"Section 7: Management of Pain and Anxiety" goes over the "5-P" approach for pain management: physical (including positioning of the client), procedural (order of vaccines and recommendation against aspiration), psychological (verbal signals, neutral language, parent coaching, distraction, and environment), pharmacological (sweet tasting solutions, topical anaesthetics), and process (education and implementation).</p>	2020	Includes information for infants and toddlers, including children under 1 year of age and up to school-aged children (5 and up)	https://www.albertahealthservices.ca/assets/info/hp/cdc/if-hp-cdc-ip-sm-standard-administration-immunization-06-100.pdf
BC Centre for Disease Control, Communicable Disease Control Manual Chapter 2: Immunization	<p>Discusses strategies to reduce immunization injection pain in children under the age of 3 under "Section 5: Infants and Children < 3 Years of Age", and children aged 3 years or older in "Section 6: Children 3-17 Years of Age"</p> <p>The "Quick Reference Guide" section summarizes the strategies in these age groups.</p>	2018	Children under 3 years of age and children who are 3 years or older	http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%202

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Appendix D - Reducing Immunization Injection Pain				02%20-%20Imms/Appendix_D_RIIP.pdf
Canadian Immunization Guide	The primary national resource for immunization practices in Canada. It contains comprehensive information about needle choices, pain management, site selection etc. for adults and children	Last full revision 2017, but table of updates found here: Canadian immunization guide: Table of updates - Canada.ca	Children and adults	Vaccine administration practices: Canadian Immunization Guide - Canada.ca
CMAJ: Reducing pain during vaccine injections: clinical practice guideline	Provides recommendations for reducing pain during injections. It includes strong recommendations on positioning and pharmacological interventions (e.g., topical anaesthetics, sweet-tasting solutions). It also includes comments on some weaker recommendations, including use of ibuprofen or acetaminophen, warming the vaccine, various distraction techniques, and breathing distractions.	2015	Recommendations for infants and young children (under 3), children (3-12), adolescents (12-17), and adults (over 18). Each recommendation listed in the tables includes a designation for the ages in which it is recommended.	https://www.cmaj.ca/content/187/13/975#T1
Reduce the Pain of Vaccination in Children Under	Geared towards parents and provides tips for planning ahead to reduce pain, including providing sugar water, topical anaesthetics, or toys to distract the child. Advice on how to hold the child and how the parent should	2010, but website was last updated	Children under 3	https://immunize.ca/sites/default/files/Resource%20and%20Product%20Uploa

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3 Years: A Guide for Parents	behave is also provided. Pharmacists may consider making this information available to parents.	on 21 July 2021: https://immunize.ca/pain-management-children#:~:text=Distract%20your%20child,if%20you%20are%20not%20breastfeeding		ds%20(PDFs)/Products%20and%20Resources/Pain%20Management/Parents/painreduction_under3_web_e.pdf
Reduce the Pain of Vaccination in Kids and Teens: A Guide for Parents	Geared towards parents and provides helpful suggestions for preparing children and teens for injections. These strategies involve discussing the procedure ahead of time, applying topical anaesthetics, upright positioning, skin rubbing, managing one's state of mind, and distracting the child or teen during the injection. Pharmacists may consider making this information available to parents.	2010	Generally children over 4 and teens	https://www.caringforkids.cps.ca/uploads/handout_images/Pain-reduction-kids-and-teens.pdf
Pain Management during Vaccine Injections A Clinician's Guide: Children s 3 years	Geared towards clinicians and suggests strategies to manage vaccination pain in children aged 3 years or younger. The 5 P's to improve pain relief involve process strategies, physical strategies, pharmacological strategies, psychological strategies, and procedural strategies.	Unavailable	Children aged 3 years or younger	https://immunize.ca/sites/default/files/Resource%20and%20Product%20Uploads%20(PDFs)/Products%20and%20Resources/Pain%20Management/Clinicians/Pocket%20Guide/2015/5p_less than 3_web_e.pdf

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Pharmacy top tips for childhood vaccinations: Setting your pharmacy up for success	Practice tool provides tips and strategies to community pharmacists on what to do in advance before immunizing a child, how to set up their pharmacy space, and a useful approach on how to vaccinate children during the appointment.	Unavailable	Not specified, but helpful in children aged 2 to 5	https://www.pharmacists.ca/cpha-ca/function/utilities/pdf-server.cfm?thefile=/education-practice-resources/VaccinatingKids-Tips_EN.pdf
Needles Don't Have to Hurt	Offers strategies and information to parents on how to reduce their children's pain and stress during immunizations. This would be a useful handout to provide to parents.	Unavailable	Not specified, but helpful in children aged 2 to 5	https://immunize.ca/sites/default/files/resources/parentscanada-ad-feature-needles-dont-have-to-hurt.pdf

Websites

Resource	Notes	Publication Year	Relevant Ages	Link
Government of Canada, Vaccination pain management for children: Guidance for health care providers	Provides guidance to health care professionals on strategies to make vaccination injections more comfortable for children under 3 years of age and for children who are 3 to 17 years old.	2021	Children under 3 years of age and children who are 3 years or older	https://www.canada.ca/en/public-health/services/immunization-vaccines/pain-management-children-guidance-health-care-providers.html#a2

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Help Eliminate Pain in Kids & Adults	Website has multiple resources for parents, children, and healthcare providers. These include publications on reducing pain, resources that can be printed out for parents, and clinical practice guidelines.	Various	Infants, children, teens	http://phm.utoronto.ca/helpinkids/

Videos and Webinars

Resource	Notes	Publication Year	Relevant Ages	Link
Immunize Canada: Reducing Fear and Pain: Integrating evidence into routine immunization practice webinar	Goes over what can be done to reduce pain and fear in children. It reviews 4 P's of pain management: procedural (e.g. starting with the least painful injection if multiple are given), physical (e.g. body positioning and activity), pharmacological (e.g. pain medicine, sweet-tasting solutions), and psychological (e.g. thoughts and behaviours). 42:34	2017	Depending on the technique, the intended age may be different.	https://www.youtube.com/watch?v=kcps_9eXyBU&feature=youtu.be
SickKids Hospital: Reduce the pain of vaccination in children video	Goes over what parents can do to minimize pain associated with vaccines in children. It discusses topical anaesthetics, child positioning, and distractions. It recommends talking to children over 4 before the vaccine to explain why they're getting an injection and allow them to understand the process. 20:52	2014	While no specific age is indicated for each of the techniques, they seem to be suitable for children age 4 and older.	https://www.youtube.com/watch?v=TGGDLhmqH8I

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Immunization Techniques: Best Practices with Infants, Children, and Adults Video	Focuses on skills and techniques needed for vaccine administration in children. 25:15	2014	No specific age, but suitable in ages 2 to 5.	https://www.youtube.com/watch?v=WsZ6NEijfl
Centre for Pediatric Pain: It Doesn't Have To Hurt Video	Provides tips for parents and healthcare professionals on ways to reduce the distress and pain associated with needles when immunizing children. 2:18	2013	No specific age, but suitable in ages 2 to 5.	https://www.youtube.com/watch?v=KgBwVSYqfps

Learning Modules

*Please check with learning activity provider for details on accreditation and expiry dates.

Resource	Notes	Publication Year	Relevant Ages	Link
Pearl Healthcare: Administering Injections to Young Children Online Modules	Topics include land marking a site for administering IM and SC injections, needle size selection, positioning the child, dealing with squirmy children, comfort/pain strategies, dealing with fear of needles, distraction, engaging parents, documentation, interprofessional communication, adverse effects, and discussion with parents/caregivers. Log In or Payment Required to Access.	2021	Children aged 2 to 5.	https://healthlearning.ca/#/online-courses/38300871-aed7-45c8-b574-1dad1accb5bd
Ontario Pharmacists Association: Mastering	Reviews administration techniques, dosing for the flu vaccine, pain management, and comfort strategies for children under 5. It also discusses potential adverse reactions and the appropriate treatment, monitoring, and follow-up. Finally, these modules	2020	Children aged 2 to 5.	https://www.opa.today.com/224243

Resource	Notes	Publication Year	Relevant Ages	Link
<p>Injections in Paediatrics</p> <p>PharmAchieve: Injections and Immunizations for Children</p>	<p>discuss documentation and communication procedures to the parent or caregiver and other healthcare professionals. Log In or Payment Required to Access.</p> <p>Focuses on how to correctly administer injections, pain management techniques, distraction strategies, adverse event management, and knowing when to refer. Log In or Payment Required to Access.</p>	2020	Children under 12 years of age.	https://pharmachieve.com/component/dtregister/?controller=event&eventid=884&Itemid=&task=individualRegister&