

# HEPATITIS B VACCINE

<b>Indication</b>	<ul style="list-style-type: none"> <li>• Primary immunisation against infection caused by hepatitis B virus<sup>1</sup></li> <li>• If mother hepatitis B surface antigen positive, in conjunction with hepatitis B immunoglobulin-VF</li> <li>• Recommended for all babies, commencing at birth<sup>2</sup></li> </ul>
<b>INTRAMUSCULAR</b>	<b>Presentation</b> <ul style="list-style-type: none"> <li>• Prefilled syringe (paediatric formulation) H-B-Vax®-II: 5 microgram in 0.5 mL</li> <li>• Prefilled syringe (paediatric formulation) Engerix-B: 10 microgram in 0.5 mL               <ul style="list-style-type: none"> <li>○ Both vaccines are equipotent despite strength difference</li> </ul> </li> </ul>
	<b>Dosage</b> <ul style="list-style-type: none"> <li>• 0.5 mL as per brand dose/strength available</li> </ul>
	<b>Preparation</b> <ul style="list-style-type: none"> <li>• Shake well before use<sup>3,4</sup></li> </ul>
	<b>Administration</b> <ul style="list-style-type: none"> <li>• Intramuscular injection into thickest part of the vastus lateralis in the anterolateral thigh<sup>5</sup> <ul style="list-style-type: none"> <li>○ Alternate thigh to that used for vitamin K<sub>1</sub> IM injection</li> <li>○ If multiple injections into same thigh are necessary<sup>2</sup>, separate injection sites by at least 2.5 cm</li> </ul> </li> </ul>
<b>Contraindication Caution</b>	<ul style="list-style-type: none"> <li>• Contraindication           <ul style="list-style-type: none"> <li>○ Hypersensitivity reaction to a previous vaccine dose or to a component of the vaccine including yeast</li> <li>○ Severe febrile infection<sup>4</sup></li> </ul> </li> <li>• Caution           <ul style="list-style-type: none"> <li>○ If moderate or severe acute illness (with or without fever), defer administration<sup>6</sup></li> <li>○ Immunocompromised may have suboptimal response to vaccine<sup>6</sup></li> </ul> </li> </ul>
<b>Special considerations</b>	<ul style="list-style-type: none"> <li>• Subcutaneous route only under specialist advice<sup>6</sup></li> <li>• Consent, documentation and parent information as per local protocols</li> <li>• A local protocol may aid identification of IM injection sites (e.g. vitamin K<sub>1</sub> into left thigh, hepatitis B vaccine into right thigh, hepatitis B immunoglobulin-VF into left thigh at least 2.5 cm from vitamin K<sub>1</sub> IM injection site)</li> </ul>
<b>Timing</b>	<ul style="list-style-type: none"> <li>• Greatest benefit if given within 24 hours of birth (do not delay beyond first 7 days of life<sup>2</sup>)</li> <li>• Subsequent doses as per National Immunisation Program Schedule for Queensland<sup>1</sup> and Australian Immunisation Handbook<sup>2</sup></li> </ul>
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>• Injection site for swelling, tenderness<sup>6</sup></li> </ul>
<b>Compatibility</b>	<ul style="list-style-type: none"> <li>• No information</li> </ul>
<b>Incompatibility</b>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<b>Interactions</b>	<ul style="list-style-type: none"> <li>• If administered at the same time as hepatitis B immunoglobulin-VF, give one IM injection in each thigh (i.e. not same leg)</li> </ul>
<b>Stability</b>	<ul style="list-style-type: none"> <li>• Store at 2–8 °C (above or below may decrease potency<sup>2-4</sup>). Protect from light<sup>3,4</sup></li> </ul>
<b>Side effects</b>	<ul style="list-style-type: none"> <li>• Digestive: GI disturbance<sup>3,4</sup></li> <li>• Integumentary: local reaction at injection site<sup>3,4</sup></li> <li>• Nervous: transient fever<sup>3,4</sup>, irritability<sup>3,4</sup></li> <li>• Respiratory: apnoea may occur in premature babies<sup>6</sup></li> </ul>
<b>Actions</b>	<ul style="list-style-type: none"> <li>• Induces protective levels of antibodies in majority of babies receiving recommended dose regimen<sup>2,3</sup></li> </ul>
<b>Abbreviations</b>	GI: gastrointestinal, IM: intramuscular
<b>Keywords</b>	Vaccine, hepatitis, hepatitis B, vaccination, immunisation, HBsAg, hepatitis surface antigen, HBIG, neonatal medicine, neonatal monograph



The Queensland Clinical Guideline [Neonatal medicines](#)<sup>7</sup> is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

## References

1. Queensland Government. Immunisation Schedule Queensland [Internet]. September 2025 [cited 2025 December 24]. Available from: <https://www.health.qld.gov.au>.
2. Australian Technical Advisory Group on Immunisation (ATAGI). Hepatitis B. [Internet]. Canberra: Australian Government Department of Health, Disability and Ageing; 2026 [cited 2026 February 20]. Available from: <https://www.immunisationhandbook.health.gov.au>.
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4. Therapeutic Goods Administration (TGA). Engerix-B (hepatitis B surface antigen recombinant (yeast)) vaccine, suspension for injection. [Internet]. Canberra: Australian Government; March 2025 [cited 2025 December 24]. Available from: <https://www.tga.gov.au>.
5. Hockenberry M, Wilson D. Wong's Nursing Care of Infants and Children. 10th ed. USA: Elsevier; 2014.
6. Merative Micromedex@Neofax®. Hepatitis B Vaccine (Recombinant). In: NeoFax®/Pediatrics (electronic version). Ann Arbor, Michigan, USA 2025 [cited 2025 December 24]. Available from: <https://www.micromedexsolutions.com>.
7. Queensland Clinical Guidelines. Neonatal medicines. Guideline No. MN25.54-V2-R30. [Internet]. Queensland Health. 2025. [cited 2025 November 27]. Available from: <https://www.health.qld.gov.au/qcg>.

## Document history

ID number	Effective	Review	Summary of updates
NMedQ21.064-V1-R26	06/05/2021	06/05/2026	Endorsed by Queensland Neonatal Services Advisory Group (QNSAG)
NMedQ26.064-V2-R31	24/02/2026	24/02/2031	Full review. Endorsed by QNSAG <ul style="list-style-type: none"> <li>• No change to dosage</li> <li>• Updated: compatibility, incompatibility, interactions, presentation, references</li> </ul>

## QR code

