

## AUSTRALIAN TECHNICAL ADVISORY GROUP ON IMMUNISATION (ATAGI) STATEMENT

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## THE IMPORTANCE AND SAFETY OF HEPATITIS B VACCINE AT BIRTH

- Immunisation of babies at birth is a safe and effective way to prevent transmission of hepatitis B virus from mother to infant, as well as transmission of hepatitis B virus from household contacts to the infant in the first few months of life.
- ATAGI recommends that infants receive four doses of hepatitis B vaccine, starting with one dose
  of monovalent hepatitis B vaccine at birth, and a further 3 doses of a hepatitis-B containing
  vaccine at 2, 4 and 6 months of age. Low birthweight and pre-term newborns are recommended
  to receive a fifth dose at 12 months of age to ensure adequate protection.
- ATAGI recommends a birth dose for all newborns, irrespective of a mother's hepatitis B status, because:
  - Screening for hepatitis B infection during pregnancy does not always occur.
  - There may be errors or a delay in reporting results to the pregnant person
  - The pregnant person may become infected after screening.<sup>1</sup>
  - Transmission of hepatitis B infection from another household member to the baby may occur.
  - Babies infected at birth have about a 90% chance of developing chronic hepatitis B<sup>2</sup>, a lifelong infection which can lead to liver failure and liver cancer later in life.
  - A birth dose provides an important safety net to protect newborns at birth and into childhood. Delaying this dose creates an unnecessary and avoidable risk of chronic hepatitis B infection.
- This early protection is a key part of Australia's National Immunisation Program, helping reduce hepatitis B among children and into adulthood.
- It is important that all children complete the full hepatitis B vaccine series, as household transmission remains a significant risk. Up to 50% of children who become infected in childhood have acquired hepatitis B infection from household contacts who don't know they are infected.<sup>3</sup>

<sup>1</sup> MacIntyre CR. Hepatitis B vaccine: risks and benefits of universal neonatal vaccination. Journal of Paediatrics and Child Health 2001;37:215-7.

<sup>&</sup>lt;sup>2</sup> Edmunds WJ, Medley GF, Nokes DJ, Hall AJ, Whittle HC. The influence of age on the development of the hepatitis B carrier state. Proceedings of the Royal Society of London. Series B: Biological Sciences 1993;253:197-201.

<sup>&</sup>lt;sup>3</sup> Armstrong GL, Mast EE, Wojczynski M, Margolis HS. Childhood hepatitis B virus infections in the United States before hepatitis B immunization. Pediatrics. 2001 Nov;108(5):1123-8.

- Since the nationwide introduction of the hepatitis B vaccine for newborns in 2000, there has been a 5-fold decrease in the number of newly-acquired hepatitis B infections diagnosed each year<sup>4</sup>, demonstrating the vaccine's effectiveness in protecting young Australians.
- Hepatitis B remains a significant cause of disease worldwide. In Australia almost 220,000 people were living with chronic hepatitis B in 2023.<sup>5</sup> The World Health Organization estimates that 254 million people were living with chronic hepatitis B infection in 2022 globally, with 1.2 million new infections each year, and 1.2 million hepatitis B related deaths in 2022<sup>6</sup>.

Further details about hepatitis B vaccination, including effectiveness and safety, can be found in the Australian Immunisation Handbook hepatitis B chapter.

The Australian Government's new *Fourth National Hepatitis B Strategy 2025–2030*, due for release in early 2026, will guide Australia's strategic response to achieve elimination of hepatitis B as a public health threat by 2030. The Strategy sets a 2030 childhood vaccination goal to ensure greater than 95% of newborns receive a timely hepatitis B vaccine dose at birth.

<sup>&</sup>lt;sup>4</sup> National Communicable Disease Surveillance Dashboard. <u>Dashboard · NINDSS Portal</u>. Accessed 9/12/25.

<sup>&</sup>lt;sup>5</sup> Kirby Institute, UNSW Sydney. 2024. HIV, viral hepatitis and sexually transmissible infections in Australia: Annual surveillance report 2024. HIV, viral hepatitis and sexually transmissible infections in Australia Annual surveillance report 2024: Hepatitis B. Accesses 9/12/25.

<sup>&</sup>lt;sup>6</sup> World Health Organization. Hepatitis B Fact Sheet. 23 July 2025. <u>Hepatitis B</u>. Accessed 9/12/25.