

A documented primary course of tetanus, diphtheria, and polio vaccines, and for adults born 1969 or later measles, mumps and rubella (MMR) vaccines, are recommended and funded for unimmunised adults who are eligible to receive publicly funded health and disability services. Some adults will also be eligible to receive other Schedule vaccines because of a medical condition. *Section 2.1.7 Adult vaccination (aged 18 years and older)* in the *Immunisation Handbook* outlines the primary immunisation requirements for adults and funded vaccines for special groups.

- Funded routine and special groups Immunisation Schedule vaccines can be administered by a vaccinator authorised to administer National Immunisation Schedule vaccines without an individual prescription or standing order.

Certain occupations provide an increased risk of contracting some vaccine-preventable diseases. Table 4.8 in the *Immunisation Handbook* provides vaccine recommendations by occupational group. Additional vaccines and/or booster doses of some vaccines may be recommended but not covered by the National Immunisation Schedule and must be purchased by the individual or their employer.

- If the vaccinator is not authorised to administer the vaccines under a local immunisation programme approved by the Medical Officer of Health, the vaccines **MUST** be prescribed individually or with a standing order from a registered medical practitioner or nurse practitioner with prescribing rights.

Available vaccines	Recommendations
<b>Hepatitis A</b> Avaxim®, Havrix®	<p><b>Evidence of immunity</b></p> <ul style="list-style-type: none"> <li>Serology is not routinely recommended.</li> <li>Administer two vaccine doses 6–12 months apart.</li> </ul> <p>Only funded for adults who meet the eligibility criteria listed on the Pharmaceutical Schedule.</p>
<b>Hepatitis B</b> Engerix®-B	<p><b>Evidence of immunity</b></p> <p>Check immunisation records.</p> <ul style="list-style-type: none"> <li>If a complete age-appropriate course of hepatitis B vaccines is documented, check anti-HBs serology.                             <ul style="list-style-type: none"> <li>An anti-HBs level of <math>\geq 10\text{IU/L}</math> at any time is evidence of long-term immunity, even if antibodies have subsequently waned.</li> </ul> </li> <li>If an incomplete age-appropriate course of hepatitis B is documented, administer the required number of doses to complete a primary course of three documented hepatitis B vaccine doses with a minimum of one month between each of the doses.<sup>#</sup> Check anti-HBs serology one month after the final vaccine dose.</li> <li>If there are no documented hepatitis B vaccine doses, even if the person is sure they “had them in the past”, do not undertake serology. Administer a primary course of three documented hepatitis B vaccine doses with a minimum of one month between each of the doses.<sup>#</sup> Check anti-HBs serology one month after the final vaccine dose.</li> </ul> <p><b>#Note:</b> Protection ‘as soon as possible’ is important to reduce occupational risk. Administration of three hepatitis B vaccine doses using the shorter intervals of 0, 1, and 2 months, i.e. a one month interval between each dose, leads to equivalent seroconversion of <math>\geq 10\text{IU/L}</math> as when the intervals of 0, 1, and 6 months are used.</p> <p><b>Interpretation of serology and responses</b></p> <p>After completion of three documented hepatitis B vaccine doses:</p> <ul style="list-style-type: none"> <li>Anti-HBs levels <math>\geq 10\text{IU/L}</math>: Evidence of long-term immunity, even if antibodies subsequently wane.</li> <li>Anti-HBs levels <math>&lt; 10\text{IU/L}</math>: Administer one dose of hepatitis B vaccine and repeat serology one month later.                             <ul style="list-style-type: none"> <li>If repeat serology is <math>&lt; 10\text{IU/L}</math>, administer two more doses of hepatitis B vaccine one month apart to complete a second course of three hepatitis B vaccine doses. Repeat serology one month after the final dose.</li> <li>If anti-HBs levels <math>&lt; 10\text{IU/L}</math> following a second full course of hepatitis B vaccine, the person should be considered a vaccine non-responder. Telephone 0800 IMMUNE to discuss further options.</li> </ul> </li> </ul> <p>Only funded for adults who meet the eligibility criteria listed on the Pharmaceutical Schedule.</p>
<b>Hepatitis A &amp; B</b> Twinrix®	<ul style="list-style-type: none"> <li>Twinrix is an alternative to the monovalent hepatitis A and hepatitis B vaccines and can be considered when immunisation against both diseases is required.</li> <li>Completion of the primary course of Twinrix® and protection against hepatitis A and hepatitis B takes longer than when separate monovalent hepatitis A and hepatitis B vaccines are used.</li> <li>Administer three doses at 0, 1 and 6 months.                             <ul style="list-style-type: none"> <li>Twinrix® doses are NOT interchangeable with Avaxim®, Havrix®, or Engerix®-B doses. Neither one dose of Twinrix® and two doses of Engerix®-B, nor two doses of Twinrix® and one dose of Engerix®-B provide a complete primary course of hepatitis A vaccines.</li> </ul> </li> </ul> <p>Not a funded vaccine on the Pharmaceutical Schedule.</p>

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Available vaccines <small>continued...</small>	Recommendations
<b>Influenza</b> Brands vary	<ul style="list-style-type: none"> <li>Annual influenza vaccine dose.</li> </ul> <p>Only funded for adults who meet the eligibility criteria listed on the Pharmaceutical Schedule.</p>
<b>Pertussis</b> Adacel <sup>®</sup> , Boostrix <sup>®</sup>	<ul style="list-style-type: none"> <li>Refer to the <i>Tetanus, diphtheria, and pertussis</i> vaccine information.</li> </ul> <p>Only funded for adults who meet the eligibility criteria listed on the Pharmaceutical Schedule.</p>
<b>Polio</b> IPOL <sup>®</sup>	<ul style="list-style-type: none"> <li>Three documented doses are funded for unimmunised adults.</li> </ul> <p>Only funded for adults who meet the eligibility criteria listed on the Pharmaceutical Schedule.</p>
<b>Measles, mumps, and rubella</b> M-M-R <sup>®</sup> II, Priorix <sup>®</sup>	<ul style="list-style-type: none"> <li>Two documented doses are funded for eligible unimmunised adults.</li> </ul> <p><b>Evidence of immunity for measles, mumps, and rubella</b></p> <ul style="list-style-type: none"> <li>Serology is not required.</li> <li>Documented administration of two doses of MMR vaccine,<sup>¥</sup> or</li> <li>Laboratory evidence of immunity or laboratory confirmation of disease.<sup>¥</sup></li> </ul> <p><sup>¥</sup><b>Note:</b> Adults born in New Zealand before 1969 are considered immune to measles, mumps and rubella. They do not require any other evidence of immunity against these diseases.</p> <p>Only funded for adults who meet the eligibility criteria listed on the Pharmaceutical Schedule.</p>
<b>Tetanus, diphtheria, and pertussis</b> Adacel <sup>®</sup> , Boostrix <sup>®</sup>	<ul style="list-style-type: none"> <li>Three documented doses of tetanus and diphtheria containing vaccines are funded for unimmunised adults.</li> <li>A booster dose is funded for adults who require a tetanus-booster immunisation as part of tetanus-prone wound management.</li> <li>A booster dose is funded for adults aged 45 years who do not have four documented doses of tetanus containing vaccine.</li> <li>A booster dose is funded for adults aged 65 years.</li> <li>A minimum interval of 10 years is recommended between booster doses.</li> </ul> <p>Only funded for adults who meet the eligibility criteria listed on the Pharmaceutical Schedule.</p>
<b>Tuberculosis</b>	<ul style="list-style-type: none"> <li>BCG vaccination is not indicated for adults. The vaccine has a low efficacy in adults and makes the further use of TST/Mantoux tests as a diagnostic tool more difficult.</li> <li>Pre-employment screening should include a TB infection risk assessment questionnaire, identification of those at higher risk of prior TB exposure, assessment for any symptoms compatible with TB and an interferon gamma release assay (IGRA, QuantiFERON-TB Gold assay).</li> </ul>
<b>Typhoid</b>	<ul style="list-style-type: none"> <li>Immunisation against typhoid is not recommended for employees who only work within New Zealand, including sewage workers, plumbers or other workers in regular contact with untreated sewage.</li> <li>Typhoid disease outbreaks are rare and the risk of exposure within New Zealand is extremely low.</li> </ul>
<b>Varicella</b> Varilrix <sup>®</sup> , Varivax <sup>®</sup>	<p><b>Evidence of immunity</b></p> <ul style="list-style-type: none"> <li>A good history of previous varicella infection, or</li> <li>Diagnosis or verification of a history of herpes zoster by a health professional, or</li> <li>Documented administration of two doses of varicella vaccine, or</li> <li>Laboratory evidence of immunity or laboratory confirmation of disease.</li> </ul> <p>Only funded for adults who meet the eligibility criteria listed on the Pharmaceutical Schedule.</p>

## References

- Centers for Disease Control and Prevention. Immunization of health-care personnel. Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Morb Mortal Wkly Rep.* 2011;60(RR07):1-45.
- Healthcare Logistics. HCL non-funded vaccines - consolidated order form. [updated 2020 June 3; cited 2020 July 20].
- Ministry of Health. Guidelines for tuberculosis control in New Zealand, 2019. Wellington: Ministry of Health; 2019.
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- Pharmaceutical Management Agency (PHARMAC). Pharmaceutical schedule [Internet]. Wellington: PHARMAC; 2020 [updated 2020 July 20; cited 2020 July 20]. Available from: <https://www.pharmac.govt.nz/tools-resources/pharmaceutical-schedule/community/>