Pneumococcal Conjugate Vaccines
(PCV13, PCV15, PCV20)

Pathophysiology	Bacteria Common inhabitant of the respiratory tract Respiratory transmission: direct person-to-person via droplets or autoinoculation in persons carrying the bacteria in their upper respiratory tract. Incubation period 1-3 days
Vaccine Description	•(PCV13) is a 13-valent formulation composed of capsular polysaccharides derived from the seven pneumococcal serotypes contained in the current 7-valent Prevnar (4, 6B, 9V, 14, 18C, 19F, and 23F), and from six additional serotypes (1, 3, 5, 6A, 7F, and 19A). It is manufactured in the same way as Prevnar, by individual conjugation of each capsular polysaccharide to diphtheria protein. The vaccine is for active immunization of infants and children aged 6 weeks through 5 years against Streptococcus pneumonia–caused invasive pneumococcal diseases, such as pneumonia and meningitis, and against otitis media. •(PCV15) contains pneumococcal polysaccharide serotypes 22F and 33F in addition to the PCV13 serotypes, conjugated to CRM197 (genetically detoxified diphtheria toxin). The vaccine is indicated for active immunization for the prevention of invasive disease caused by Streptococcus pneumonia serotypes (1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, 22F, 23F, and 33F), in adults 18 years of age and older. •(PCV20) is indicated for active immunization for the prevention of pneumonia and invasive disease caused by Streptococcus pneumoniae serotypes 1, 3, 4, 5, 6A, 6B, 7F, 8, 9V, 10 A, 11A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, and 33F in adults 18 years of age and older.
Dose & Route	0.5 mL given IM

<table>
<tr><td>Administration Schedule</td><td>Routine schedule (PCV13/PCV15):
Dose Recommended Age
1 .....2 months
2 .....4 months
3 .....6 months
4 .....12-15 months (booster)

Catch-up schedule:
Unvaccinated healthy children aged 24–59 months should receive a single dose of PCV (either PCV13 or PCV15). Unvaccinated children aged 24–71 months with any risk condition should receive 2 doses of PCV (either PCV13 or PCV15) with an interval of ≥8 weeks between doses. Routine use of PCV is not recommended for healthy children aged ≥5 years who have not yet received a dose of PCV.</td></tr>
<tr><td>Minimum Intervals</td><td>Dose Minimum Interval and Ages
1 .....Must be at least 6 weeks of age
2 .....4 weeks from dose 1
3 .....4 weeks from dose 2
4 .....8 weeks from dose 3 (booster)</td></tr>
<tr><td>Schedule for Older Infants & Children</td><td><table>
<tr><th>Age @ 1st Dose</th><th>Primary Series</th><th>Booster</th></tr>
<tr><td>2-6 months</td><td>3 doses</td><td>Yes-2 months after dose 3</td></tr>
<tr><td>7-11 months</td><td>2 doses</td><td>Yes-2 months after dose 2</td></tr>
<tr><td>12-23 months</td><td>2 doses at least 8 weeks apart</td><td>No</td></tr>
<tr><td colspan="3">24-59 Months</td></tr>
<tr><td>Healthy</td><td>1 dose</td><td>No</td></tr>
<tr><td colspan="3">24-71 months</td></tr>
<tr><td>High Risk*</td><td>2 doses at least 8 weeks apart</td><td>No</td></tr>
<tr><td colspan="3">6–18 years</td></tr>
<tr><td>High Risk*</td><td>1 dose</td><td>No</td></tr>
</table></td></tr>
<tr><td>Special Situations:
Children and adolescents aged 6–18 years with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak</td><td>If a dose of PCV13 or PCV15 has not been administered previously, a single dose of PCV13 or PCV15 is recommended, regardless of whether the</td></tr>
</table>

Administration of PPSV23 After PCV13 or PCV15 Among Persons Aged 2–18 Years with Risk Conditions	• Children aged ≥2 years with any risk conditions should receive PPSV23 after completing all recommended PCV doses (either PCV13 or PCV15). These children should receive a single dose of PPSV23 at age ≥2 years and ≥8 weeks after the most recent PCV dose (Table 3). Children who have received PPSV23 but have not yet completed their recommended PCV doses should receive PCV ≥8 weeks after the PPSV23 dose. When elective splenectomy, immunocompromising therapy, or cochlear implant placement is being planned, PCV or PPSV23 vaccination should be completed ≥2 weeks before surgery or initiation of therapy, if possible. • Revaccination with PPSV23 among children with immunocompromising conditions. Children aged ≥2 years who have an immunocompromising condition should receive a second dose of PPSV23 ≥5 years after the first PPSV23 dose. • Recipients of hematopoietic stem cell transplants. Recipients of hematopoietic stem cell transplants are recommended to receive 3 sequential PCV doses followed by a dose of PPSV23 beginning 3–6 months after the transplant, as described in the General Best Practice Guidelines for Immunization (*27*). In children with graft-versus-host disease, PPSV23 can be replaced with a fourth dose of PCV.
Contraindications	• Anaphylactic reaction following a prior dose of PCV13, PCV15, or PPSV23 • Defer vaccination in children with moderate or severe acute illness until illness subsides.
Special Considerations	• PCV13 or PCV15 is required for children younger than 5 years attending a childcare facility. • PCV13/PCV15 and PPSV23 should not be administered at the same time; at least 2 mos. (8weeks) should separate the vaccine doses. • Children at high risk who received PCV13 or PCV15 should also receive PPSV23 at 2 yrs. of age. • PCV13/PCV15 and DTaP should be administered in separate sites.
Adult Pneumococcal Vaccine Recommendations	• Adults aged ≥65 years. Adults aged ≥65 years who have not previously received PCV or whose previous vaccination history is unknown should receive 1 dose of PCV (either PCV20 or PCV15). When PCV15 is used, it should be followed by a dose of PPSV23 (Table 1). • Adults aged 19–64 years with certain underlying medical conditions or other risk factors. Adults aged 19–64 years with certain underlying medical conditions or

	other risk factors who have not previously received PCV or whose previous vaccination history is unknown should receive 1 dose of PCV (either PCV20 or PCV15). When PCV15 is used, it should be followed by a dose of PPSV23.