In order to decide whether a vaccine is safe to give to a particular child, pediatricians are trained to think in terms of precautions and contraindications.

Some precautions are a temporary issue; for instance, the child currently has an illness. If the ill child's fever in the last day has been greater than 101 F, then vaccines are usually rescheduled for a different day. Other precautions pertain to a particular child for future vaccine doses. For instance, a child that had a fever 105 F within the 2 days after a DTaP vaccine has a precaution for future doses of DTaP. When a precaution is present, vaccine dose may be given after discussion of the risks and benefits of the vaccine. In the case of the fever after DTaP, we know from experience with DTaP that fever will not necessarily follow the next dose of vaccine; fever could have been coincidentally due to a viral infection, and we generally consider safe to administer further doses of DTaP following discussion with parents. Parents always have the right to consent to or decline a vaccine.

A contraindication is a condition that prevents further administration of a particular vaccine. When a contraindication is present, the risk of adverse reaction outweighs the benefit of the vaccine. An example of a contraindication is a severe allergic reaction to the vaccine. While the pediatrician could decide to consult an allergy specialist physician to determine whether allergy to the vaccine persists, the vaccine is not given in the future in most cases.

A number of precautions for pertussis vaccines are reactions that were much more common prior to 1995 when a different vaccine was used. The older whole cell DTP vaccine has been replaced with the much safer DTaP (aP stands for acellular pertussis vaccine). Whole cell DTP vaccine is still given in other countries and is an effective pertussis vaccine. Reactions such as inconsolable crying for many hours, seizure, unresponsive episodes, lethargy, and changes in muscle tone were more common after whole cell DTP than after acellular pertussis vaccine. This is a great advance in vaccine safety. Children that had reactions as infants to pertussis vaccine no longer have a precaution for Tdap that is recommended age 11-12 years (that is, they can receive Tdap and are no more likely to have reaction than any other preteen child).