



## Leading Pedestrian Intervals

SAFETY BENEFIT:

# 60%

Reduction in pedestrian-vehicle  
crashes at intersections



LPIs are beneficial at intersections with high left-turning volumes.

Source: pedbikeimages.org / Burden

A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter an intersection 3-7 seconds before vehicles are given a green indication. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn left.

LPIs provide the following benefits:

- Increased visibility of crossing pedestrians.
- Reduced conflicts between pedestrians and vehicles.
- Increased likelihood of motorists yielding to pedestrians.
- Enhanced safety for pedestrians who may be slower to start into the intersection.

FHWA's *Handbook for Designing Roadways for the Aging Population* recommends the use of the LPI at intersections with high turning-vehicle volumes. Transportation agencies should refer to the *Manual on Uniform Traffic Control Devices* for guidance on LPI timing. Costs for implementing LPIs are very low, since only signal timing alteration is required. This makes it an easy and inexpensive countermeasure that can be incorporated into pedestrian safety action plans or policies and can become routine agency practice.



An LPI allows a pedestrian to establish presence in the crosswalk before vehicles are given a green indication.

Source: FHWA



Pedestrians wait for the walk signal.

Source: pedbikeimages.org / Burden

Source: Aaron C. Fayish and Frank Gross, "Safety Effectiveness of Leading Pedestrian Intervals Evaluated by a Before-After Study with Comparison Groups," *Transportation Research Record* 2198 (2010): 15-22. DOI: 10.3141/2198-03

→ For more information on this and other FHWA Proven Safety Countermeasures, please visit <https://safety.fhwa.dot.gov/provencountermeasures>.

