

AAA TOP TEN WAYS TO MAKE ROADS SAFER*

The following measures will help make the roads safer for all drivers, but especially baby-boomers and seniors.

1. **SIGNS:** Larger, simpler, and better-placed guide signs and street signs—larger lettering (1 inch/33 ft); retroreflective materials; placed well in advance of the “event” (such as an intersection or exit ramp); confusing & multiple signs need to be eliminated. Signs should be placed higher, overhead, and in advance to announce upcoming streets.
2. **CROSSWALKS:** Crosswalks and pedestrian areas in general can be made safer—retroreflective pavement markings to increase visibility; countdown signals so pedestrian knows the amount of time needed to safely cross; longer walk times for slower paced pedestrians (3 ft/second); easier to reach and larger buttons, pedestrian signal plaques (to help pedestrians properly understand signals). Pedestrian refuge islands at large streets also help.
3. **LEFT-TURN LANES:** Dedicated, protected left-turn lanes and phases when there is a traffic signal, preferably “off-set”—left turns at intersections are one of the most dangerous traffic conditions for seniors. Having a signalized intersection with an arrow and a left turn lane (rather than leaving it to the judgment of the driver to determine when there is a sufficient break in traffic) will reduce the number of dangerous “right angle” collisions. “Offset” left turn lanes also improve visibility because the car going in the opposite direction doesn’t block you.
4. **STOP SIGNS:** Some intersections do not require a signal light, but if they have stop signs, their safety can be improved. The minimum size of stop signs, regardless of the speed, should be 30-inches to help deal with the reduced visual acuity in the older population; the retro-reflectivity of stop signs must be maintained, not only so they can be read, but so they will be noticed; STOP AHEAD signs are useful in situations where drivers appear not be noticing the stop signs - and since older drivers are often cited for "failure to yield to a traffic control device" this does seem to be a problem. In special cases, lines or rumble strips across the roadway before a stop sign can help alert drivers.
5. **LIGHTING:** Better lighting overall—with age, the lens of the eye becomes less clear and the pupil actually shrinks so less light enters the eye. Eyesight begins to worsen at age 40 and by 60, a driver needs 3 times more light to see as at 16. Since more light is required to see the same objects as we age, better lighting for both highways and city streets are needed.

6. PAVEMENT MARKINGS: Brighter road markings—edge markings and other pavement markings should be retroreflective so drivers can see curbs, lanes, and intersections/crosswalks more easily (to avoid hitting curbs or pedestrians and to stay within lanes). “Run off the road” crashes would be reduced.
7. TRAFFIC SIGNALS: Larger traffic signal heads—the diameter should be at least 8 inches but larger may be needed (12 inches) in some locations. Back plates (to provide more contrast) for traffic signals also improve visibility since our contrast sensitivity decreases with age. “All red” periods for traffic signals allow for a margin of error.
8. FREEWAY EXITS & ENTRANCES: Large, advance, and clearer signs marking exit (wrong way) ramps and entrance ramps would prevent vehicles from the dangerous mistake of going the wrong way on a highway.
9. WORK ZONES: Work zones are constantly changing environments that challenge all drivers because they don't know what to expect; large, bright, well maintained and carefully placed work zone devices (barrels, cones, etc.) including flashing arrow panels for lane closures should be used to help guide drivers through these difficult situations. Crashes occur at work zones because drivers are unprepared for new situations. Work zones will only become more common with the aging of the transportation infrastructure, and older drivers have more difficulty negotiating these unexpected areas.
10. CHANGEABLE MESSAGE SIGNS: Changeable message signs help drivers understand changing conditions and situations (which affect us more as we age); to be effective, changeable message signs should use short simple words, easily understood abbreviations and not exceed two "panels". If more information needs to be conveyed than can be displayed on two panels, additional signs are needed.

**The analysis was developed with real world data from the AAA Michigan Road Improvement Demonstration Project as well as the Federal Highway Administration guidelines. This list is featured in the July, 2003 edition of Reader's Digest in the article: Safe Car, Safe Driver, Dangerous Roads.*