

Redesigned for the 1998 model year and modified beginning with 2000 models to change airbag deployment characteristics, the Nissan Altima has optional side airbags designed to protect drivers' and front passengers' heads and chests. Front shoulder belts include crash tensioners designed to prevent slack from allowing excessive forward movement in a crash and devices to limit belt forces on occupants. Antilock brakes are optional.

The Insurance Institute for Highway Safety has evaluated the crashworthiness of the Altima, based primarily on performance in a 40 mph frontal offset crash test into a deformable barrier. Head restraint and bumper designs are evaluated separately:

STRUCTURE/SAFETY CAGE: MARGINAL There was moderate to major intrusion into the driver footwell area and moderate rearward movement of the instrument panel.

RESTRAINTS/DUMMY KINEMATICS: MARGINAL Dummy movement wasn't well controlled. During rebound, the dummy moved toward the driver door, which had bowed outward, and its head approached but did not contact the window sill. Then the head moved up and back and contacted the B-pillar. Plus there was too much upward movement of the steering wheel, which could compromise restraint system performance in other crashes.

INJURY MEASURES: LEFT LEG MARGINAL Measures taken from the head, neck, and chest indicate low risk of injury to these body regions. Head acceleration from the B-pillar contact was low. However, the extent of the left tibia/femur displacement indicates the possibility of knee injury, and forces on the right leg indicate the possibility of lower leg injury. The dummy's left shin contacted a metal plate under the knee bolster, which gashed the vinyl 'skin' near the knee.

OVERALL EVALUATION: MARGINAL The driver space wasn't maintained well in the frontal offset crash test, and footwell and instrument panel intrusion contributed to the possibility of knee and leg injuries. Optional side airbags with head protection and standard belt crash tensioners are pluses.