

OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Joseph Baker

Shopping for a Safe Vehicle: Part One

With fuel prices at an all-time high, those in the market for a new vehicle are keeping a keen eye on the miles per gallon. But that doesn't mean safety has to take a back seat in the decision-making process when shopping the showroom or sales lot.

Dr. Baker realizes that families are continually being bombarded by the hype, glitz and glamour of car advertisements. This aggressive marketing can be overwhelming — and persuasive. But how much of the rhetoric involves safety issues?



According to Dr. Baker, not enough. Doctors of chiropractic focus on prevention, which includes vehicle safety. Therefore, Dr. Baker wants patients to understand the various automobile safety features *before* shopping for their next dream machine.

Consult Crash-Test Results

Want to know how a particular vehicle model did in its crash test? One place to start is www.crashtest.com.

You can also access the 2005 edition of *Buying a Safer Car* at www.safercar.gov. This guide, prepared by the Department of Transportation and Highway Safety, includes valuable information on crash tests, rollover ratings and safety features. Among other things, you'll learn that vehicles with crash-test dummies buckled in the driver and front-passenger seats are crashed into a fixed barrier at 35 miles per hour. Instruments measure the force of impact

to each dummy's head, chest and legs and help researchers determine the extent of human injury under these conditions.

Ask About ABS Brakes

How many times have you had to suddenly slam on your brakes to avoid hitting an animal, road debris, a pedestrian or even another vehicle? Before the advent of the anti-lock brake systems (ABS), slamming on the brakes might cause them to lock — spinning the vehicle out of control and increasing the likelihood of injury or death.

Today, vehicles equipped with ABS "reduce stopping times on slippery surfaces and allow drivers to maintain steering control during emergency braking." (*Accid Anal Prev* 2002;34:333-41.)

Although ABS brakes are not mandated as standard safety equipment, most new cars do include them. However, it is important to ask to be sure.

Evaluate Electronic Stability Control

You are driving along the highway when, without warning, you lose control of your vehicle. Fortunately, it's equipped with electronic stability control (ESC), and a computer engages the brakes automatically.

ESC — an extension of the anti-lock brake technology — reduces the risk of single-vehicle accidents by 41 percent and fatal ones by 56 percent, according to the Insurance Institute for Highway Safety (IIHS). "About half of the 28,000 fatal passenger vehicle crashes that occur each year involve a single vehicle. Equipping cars and SUVs with electronic stability control can reduce the risk of involvement in these crashes by more than 50 percent."

ESC system sensors continuously monitor how well a vehicle is responding to a driver's steering. When a driver is about to lose control, ESC automatically engages the brakes on individual wheels to keep the vehicle under control.

ESC won't prevent fender-bender crashes that occur in stop-and-go traffic, however. Susan Ferguson, senior vice president for research at the IIHS, explains that "ESC is designed to help a driver in the relatively rare event of loss of control at high speed or on a slippery road. When a driver enters a curve too fast, for example, the vehicle may spin out of control. But with ESC, automatic braking is applied to help keep the vehicle under control."

**Dr. Joseph Baker, Limerick Chiropractic Center (610) 489-1000
332 West Ridge Pike, Limerick, PA 19468**

Although ESC is not considered “standard” safety equipment industry-wide, more and more manufacturers are including this life-saving feature. For a complete list of 2003 to 2005 cars equipped with ESC, go to the Electronic Stability Control Coalition’s Web site at www.esceducation.org.

Secure Seat Belts

One of the nation’s leading car manufacturers added a quick-release seat belt, known as the AutoCrat Safety Belt, to its own list of standard safety equipment in 1956. More than a decade later — on March 1, 1967 — The National Highway Traffic Safety Administration set the first industrywide safety standard: mandatory seat belts in all vehicles.

When used properly, seat belts dramatically increase survival rates. Studies show that buckling up reduces the risk of death from a motor-vehicle collision by a whopping 65 percent (*Br Med J* 2002;324:1119).

Discover Daytime Running Lights

Independent of traditional headlights, daytime running lights (DRL) illuminate as soon as the vehicle’s ignition switch is turned.

Mandatory on vehicles sold in Canada since 1990, DRL are not legally required in other countries — despite attempts by several car manufacturers and safety organizations to have such legislation passed. Meanwhile, more and more European and US manufacturers are taking the initiative to include this safety feature as standard equipment.

Discuss Dashboard Air Bags

According to the IIHS, more than 107 million (52 percent) of the 207 million cars and light trucks on US roads alone have driver-side air bags. More than 81 million (39 percent) also have passenger-side air bags.

Since 1998, all new passenger cars have been required to have driver and passenger air bags. Light trucks became subject to the same requirement beginning with the 1999 model year.

If the vehicle you are interested in is an older model, remember that air-bag technology has evolved considerably over the last several years. Today’s air bags are much safer and less ear splitting when they deploy.

Another air-bag factor to consider is the size and position of the vehicle’s occupants. Drivers should have 10 inches (25cm) of space between the center of the steering column and their chest. Shop around until you find a vehicle that truly “fits” you, or ask your dealer to modify the air-bag system if you can’t find a model that puts you at least 10 inches from the steering wheel.

And never place children in the front seat of a car equipped with air bags — even if they are in safety seats. Also, to avoid broken wrists and forearms, drivers should scrap the standard hand positions of “10” and “two” on the steering wheel. Placing your hands at “nine” and “three” — with thumbs resting on the face of the wheel — provides optimum control and avoids injuries related to air-bag deployment.

Seek Out Side-Impact Air Bags

Researchers from the University of Alabama’s School of Medicine used information from The National Automotive Sampling System Crashworthiness Data System to evaluate drivers and front-seat passengers in vehicles (1998 models or newer) involved in near side-impact collisions. Occupants in vehicles equipped with head-protective side air bags (SABs) “had a 75 percent lower risk of head injury after near side-impact collisions.”

SABs that provided protection to the chest area reduced injury to the lungs, heart and spine by 68 percent.

The researchers concluded that “as SAB-equipped vehicles become an increasingly larger segment of the on-road vehicle fleet, the impact of head and thoracic [chest] injury after near side-impact collision is likely to be reduced.” (*J Trauma* 2004;56:512-16.)

Like many of today’s newer safety features, some manufacturers include SAB as “standard,” while others list it as an option.

Talk With Your Doctor

As your partners in holistic health care, our office provides you with educational and insightful information each week designed to help you prevent disease and illness.

If you have any specific safety concerns, particularly those that could have a negative effect on the musculoskeletal system, make sure to discuss it with the doctor at your next visit.

And don’t forget to pick up part two of this series next week!

Optimal Health University™ is a professional service of PreventiCare Publishing®. The information and recommendations appearing on these pages are appropriate in most instances; but they are not a substitute for consultation with a health care provider. Optimal Health University™ may be photocopied (NOT reprinted) exactly as they are published noncommercially by current subscribers ONLY to share with patients or potential patients. Optimal Health University™ may NOT be reprinted in any print or electronic publication including newsletters, newspapers, magazines or Web sites. Any other reproductions are subject to PreventiCare Publishing® approval. Copyright, 2005. PreventiCare Publishing®. 1-912-897-3040.

