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USING A CELLULAR PHONE COULD RAISE CRASH RISK

A *New England Journal of Medicine* study reports a relationship between cellular telephone use and motor vehicle crashes. The main finding is that driver use of cell phones is associated with a quadrupling of the risk of a collision.

The study involved 5,980 Canadian drivers who had been in collisions resulting in substantial property damage but no personal injury. When interviewed, 1,064 of these drivers said they had a cellular telephone. A total of 742 drivers with cell phones agreed to have their billing records examined, and records were located for 699. University of Toronto researchers compared each driver's phone use immediately preceding the collision and during the same time periods several days before the day of the crash. Overall, 170 drivers had used cellular phones 10 minutes before their crashes. The researchers report the crash risk while using a cell telephone was four times higher than the risk when a phone wasn't being used. The researchers caution that the study data "do not indicate drivers were at fault in the collisions; it may be that cellular telephones merely decrease a driver's ability to avoid a collision caused by someone else."

One issue is whether the drivers with cellular telephones were driving and thus at risk of getting in a crash during the comparison periods. The authors interviewed 145 participants, of whom 72 were sure they had driven during the comparison days. When the statistical analysis was restricted to this subgroup, the relative risk of crash involvement while using a cellular phone still was high, but this is a small subgroup.

An unexpected finding is that the use of hands-free cellular telephones appeared to make no difference in crash risk compared with using hand-held phones. A possible reason is that "motor vehicle collisions may result from a driver's limitations with regard to attention rather than dexterity." Only 148 participants had hands-free telephones, so it's possible that this finding reflects the limited sample size.

The authors caution that people can vary from day to day in their driving behavior and that participants could have had different driving patterns on the days of their collisions. The study design didn't eliminate all potential types of interference from other variables related to drivers, vehicles, or driving environments. But compared with other studies, this one controlled for more of these variables because each driver was compared with him or herself.

See "Association Between Cellular-Telephone Calls and Motor Vehicle Collisions" by D.A. Redelmeier and R.J. Tibshirani in the *New England Journal of Medicine* 336:453-502.

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